

Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects in Viet Nam

Asian Development Bank TA-4689 (VIE)

Final Report

Volume 1 - The Main Report

Prepared for the
Electricity Regulatory Authority of Vietnam (ERAV)
As the Implementing Agency for TA-4689 (VIE)

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The TA Working Group in ERAV

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December 2007

PREFACE

TA-4689 (VIE) supports the preparation and pilot testing of guidelines to introduce benefit sharing mechanisms on hydropower projects in Viet Nam.

The approach proposed is consistent with the power market reforms that are identified in the Electricity Law (2004), as well as Viet Nam's broader policies for sustainable development of the power sector and government priorities reflected in the Comprehensive Poverty Reduction and Growth Strategy (CPRGS).

Previous reports issued for this TA include:

Inception Report: September 2006

Interim Report 1: May 2007 - Review of Viet Nam's legislation and enabling policy environment for benefit sharing

Interim Report 2: September 2007 - Guidelines to introduce benefit-sharing mechanisms on hydropower projects in Viet Nam.

This Final Report is presented in 3 Volumes that incorporate the main TA outputs. The final version of the guidelines (prepared in the form of a draft decree-law) and the work plan to pilot test the guidelines are Appendices A and B of this volume.

A special thanks is extended to the inter-agency Steering Committee members who gave their valuable time and expertise to guide the TA work; to ERAV for its leadership of the collaborative process; and to the many participants of the three National Consultation workshops from different agencies, non-government organizations and civil society including international NGOs. Their collaboration helped to generate consensus not only on the TA outputs, but also on the appropriateness of benefit sharing as a policy tool to advance sustainable hydropower development in the Vietnamese context.

The next step in the journey, "from guidelines to pilot testing to legislation to practice" is to secure partnership financing to field test the guidelines on the 210 MW A'Vuong hydropower project located in Quang Nam Province. This pilot test will take place over the 2008-2009 timeframe. There is some urgency in moving forward with Stage 1 of the Pilot in order to provide timely inputs to prepare legislation.

Moving from legislation to practice also requires capacity building tools to systematically scale-up benefit sharing mechanisms on existing and new hydropower projects across the country, once the regulations are in place. These capacity building needs are addressed in Stage 2 of the Pilot Project.

**CONTENTS OF THE FINAL TA REPORT
ROAD MAP TO VOLUMES 1 TO 3**

Volume 1: Main Report and Recommendations

Describes the TA Process, consultation arrangements, the main outputs and provides recommendations on the way forward.

Appendix A: The draft guidelines on benefit sharing (in the form of a draft Decree)

Appendix B: Work Plan to pilot test the guidelines on the A'Vuong hydropower project

Volume 2:

Compiles selected sections from the TA reports (i.e. the Inception Report and two Interim Reports), plus minutes and presentations from the four main TA workshops

Appendix C: The rationale for benefit sharing - from the TA Inception Report

Appendix D: Summary section from the policy review - from Interim Report 1

Appendix E: SWOT analysis of Viet Nam's policy environment - from Interim Report 1

Appendix F: Three national workshop minutes and overhead presentations

Appendix G: Quang Nam Province workshop minutes on the guidelines and pilot project

Appendix H: Stakeholder analysis and consultation plan

Appendix I: Terms of reference for the TA Steering Committee

Volume 3: Appendix of Rapid Appraisals and Field Consultations

Compiles field reports describing socio-economic baseline conditions on hydropower projects, local views on the draft guidelines and preferences for the pilot project design. Based on a mix of desk study, structured interviews, surveys and focus group sessions.

Appendix J: Rapid appraisal report on the Song-Bung 4 project – from TA Component 2

Appendix K: Rapid appraisal report on the Song Hinh project. – from TA Component 2

Appendix L: Rapid appraisal report on the A'Vuong project – from TA Component 2

Appendix M: Generalized findings across the 3 rapid appraisals

Appendix N: Field report on the A'Vuong project - input to pilot work plan

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Appendix A: Guidelines Part 1 - Draft provisions for a Decree Law on Benefit Sharing

Appendix B: Work Plan to Pilot test the Guidelines on the A' Vuong hydropower project

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
BSM / ESM	Benefit sharing mechanisms / environment (ecological) services mechanisms
CDD	Community-driven development approaches
CPRGS	Comprehensive Poverty Reduction and Growth Strategy for Viet Nam
CSPU	ADB Country Strategy and Program Update
CSO / NGO	Civil society (and social organizations) and non-government organizations
ERAV	Electricity Regulatory Authority of Viet Nam
ERPA	Emission Reduction Purchase Agreements
EVN	Electricity Authority of Viet Nam
IHA	International Hydropower Association
IWRM	Integrated Water Resource Management
MARD	Ministry of Agriculture and Rural Development
MoC	Ministry of Construction
MoF	Ministry of Finance
MoFI	Ministry of Fisheries
MoH	Ministry of Health
MOIT	Ministry of Industry and Trade (formerly MOI when the TA started in 2006)
MoNRE	Ministry of Natural Resources and Environment
MoST	Ministry of Science and Technology
MoT	Ministry of Transportation
MPI	Ministry of Planning and Investment
NEA	National Environmental Agency (under MONRE)
NWRC	National Water Resources Council (under MARD)
NWRS	National Water Resources Strategy
PPC	Provincial People's Committee
RBO	River Basin Organization
SC	Interagency Steering Committee for the TA
TA	Technical Assistance
TA-WG	Technical Assistance Working Group within ERAV
WCD	World Commission on Dams

OVERVIEW

The activities supported by this Technical Assistance project are an integral part of Viet Nam's step-wise approach to introduce mechanisms for benefit sharing on hydropower projects. They reinforce the Government's stated aims to place development of the power sector on a sustainable and stable footing.

The TA aims support of government policy

The three principle components and outputs of the TA process that started in mid-2006 were: (i) a review of current legislation and policies in Viet Nam;¹ (ii) collaborative preparation of guidelines to introduce benefit sharing principles into the planning, implementation and operation stages of hydropower projects, reflecting the Vietnamese context and relevant experience from other countries; and lastly, (iii) collaborative preparation of a work plan to field test the guidelines on a pilot basis.

The 210 MW A'Vuong hydropower project located in the Vu Gia-Thu Bon river basin in the central highland area of Quang Nam Province was selected for the field test. The Electricity Regulatory Agency of Viet Nam (ERAV) that operates under the Ministry of Industry of Trade (MOIT) is proposed as executing agency for the pilot. Quang Nam Province is proposed as the implementing agency and has enthusiastically accepted this responsibility.

Similar to the general approach adopted in other developed and developing countries, the guidelines in essence call for:

- A formula and standard procedures to remit a share of the revenue generated by a hydropower project into a project-specific revenue sharing Fund, and to internalize this cost in the retail electricity tariff;²
- Appointment of a benefit sharing council with appropriate local representation to manage the Fund and to make other recommendations on non-monetary forms of benefit sharing to extend to the project's "host" community;
- Within a framework provided by regulations, collaborative development of a Fund charter to transparently set out the eligibility criteria, grant selection and award procedures and all the local administrative arrangements for the Fund;
- Use of the Fund to offer a menu of local development measures preferred by beneficiaries, administered through a grant application program; and,³
- Ensuring that appropriate mechanisms for transparency, accountability and monitoring are incorporated so as not to undermine public confidence.

It is proposed the arrangements will be flexible and continue over the economic life of the hydropower asset. Benefit sharing would apply to all hydropower projects in Vietnam (existing and new) meeting specified requirements. Presently this includes

¹ To establish the legal basis to introduce regulations for benefit sharing on hydropower projects looking at legislation and policies across all resource management sectors.

² The cost is a pass-through as far as the hydropower entity is concerned.

³ Measures can include increments to existing targeted provincial or State programs

over 30 large hydropower projects plus a fairly large number of small hydropower projects, which in the Vietnamese definition can be up to 30 MW.

The timing of the pilot is important. Viet Nam is in the process of power sector reform, moving from a state monopoly to an open industry structure with competitive electricity generation markets and eventually competitive wholesale and retail markets. The date of effectiveness of the new regulations on benefit sharing, in particular revenue sharing aspects, would ideally coincide with the introduction of the rules for the competitive generation market, scheduled in 2009-2010.

Once regulations on benefit sharing are in place, a well-coordinated program is needed to systematically apply the mechanisms to existing hydropower projects across the country and to new projects in the pipeline. Preparation for that “rollout”, likely to be coordinated by ERAV, is a key recommendation of this TA. Specifically, the work plan proposes to start the preparation of capacity building tools (e.g. training courses, operational and guidance manuals) to facilitate a smooth national rollout of the mechanisms, in parallel with preparation of the legal instruments.

The development policy context

Viet Nam depends on fossil fuels for the bulk of its electricity generation needs today. The country of over 80 million people is rapidly modernizing and experiencing year-on-year electricity load growth of well over 10%, moving from a small base.

At the same time Viet Nam has become one of the most active countries in the world in hydropower development. Nationally there are over 30 large hydropower projects in operation providing nearly 40% of total installed capacity on the interconnected power system, close to 11,200 MW. Current projections based on the National Hydropower strategy suggest that 13,000 MW of new hydropower will be added to the grid system by 2020.⁴

The financing implications are significant. Viet Nam needs to mobilize between \$1.5 billion to \$2 billion per year from domestic and international sources to finance new hydropower development for the balance of this decade, and beyond.⁵

Benefit sharing is relevant to mobilizing financing for hydropower development. For instance, it is recognized by Vietnamese authorities that sustainable forms of hydropower development are consistent with international criteria for project lending, not only from traditional ODA sources, but also from Export Credit Agencies and the commercial banking sector. These aspects are discussed in the TA reports incorporated Appendix C, Volume 2 of this Final Report.⁶

⁴ The National Hydropower Plan (NHP) and Master Plan set out Viet Nam’s strategy to meet the long-term power demand in the country.

⁵ World Bank, Second Transmission and Distribution Project in Vietnam, Project Appraisal Document, 2005. In total, upwards of 60 new hydropower sites have been identified at various stages of study.

⁶ See Appendix C in Volume 3 of the Final Report. This includes OECD export credit agencies (ECAs) and private international banks that are members of the Equator Principles. These banks currently account for over 80% of project lending for all types of infrastructure internationally.

Introduction of benefit sharing mechanisms in the power sector is equally relevant to Viet Nam's socio-economic development goals. Despite the impressive strides made with overall economic growth and poverty reduction in the last decade, people and communities most adversely affected by hydropower projects remain among the poorest groups in Vietnamese society.

The field surveys conducted for this TA, for instance, show that poverty rates in the remote, highland areas, where most hydropower sites are located can approach 70% - even several years after the projects are completed. This compares to national average poverty rates of less than 30%.⁷

As the TA documents show, benefit sharing offers a uniquely powerful policy tool to promote sustainable development of hydropower, as embodied in Viet Nam's Electricity Law (2004) and Environment Protection Law (2005).

“Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs, on the basis of a close and harmonized combination of economic growth, assurance of social advancement and environmental protection”.⁸

Principles of benefit sharing

The notion of benefit sharing goes beyond one-time compensation payment and short-term resettlement support for displaced people. It treats both displaced people and communities that host the hydropower project in their locality as legitimate partners in the project and first among its beneficiaries.

Benefit sharing recognizes the irreversible, long-term nature of adverse impacts, as well as synergy between local development and the steps needed to improve the management of ecosystems services permanently transformed by hydropower operations - that link to impoverishment and livelihood risks for local people and their children. These steps contribute to sustainably manage hydropower assets over the longer-term, in the interest of electricity consumers and hydropower operators.

The TA Achievements

Key achievements of the TA include improved understanding of the underlying principles of benefit sharing, awareness of experience that exists elsewhere in introducing benefit sharing in the power sector, and a degree of consensus on what benefit sharing mechanisms are appropriate for Viet Nam's circumstances.

⁷ This widening gap between income in rural areas and urban centers of Viet Nam is a major concern. National legislation, starting with the 1992 Constitution stipulates that people living in such impoverished conditions, in particular national ethnic minorities that represent the largest portion of people adversely affected by hydropower projects must receive priority development assistance for their social advancement.

⁸ Article 4 of the Electricity Law (2004) that calls to, “... develop sustainable power sector based on optimal development of all sources...” and Article 1 of the revised Law on Environment Protection (2005) that came into effect in July, 2006 – which defines sustainable development for all sectors of the economy.

This consensus was not only shown in the three national workshops, but also in the provincial level workshop held to discuss the contents of the draft guidelines and the approach to test them in the field. The Provincial People's Committee representatives of Quang Province, for example, strongly endorsed the principles of benefit sharing and gave unreserved support to be the host province for the pilot (see the minutes of the provincial workshop in Volume 2 of this Final Report). At the same time, communities living in the area of the pilot test were given the opportunity to indicate their views about the proposed arrangements for benefit sharing in the guidelines (views were strongly supportive as indicated in the field surveys and questionnaires provided in Volume 3 of this Final Report) and to indicate preference for measures to incorporate into the design of the pilot.

As with all new policy interventions there remain some detractors. Some people argued that benefit sharing, in particular revenue sharing, is unaffordable for power companies and would slow the rate of hydropower development in Vietnam. This is not correct. It is therefore important to repeat and reinforce the key messages developed during the TA (see key messages in the Communication Plan in Volume 2, Appendix H).

For example, it is important to ensure (and to ensure that all stakeholders understand) that revenue sharing is pass-through as far as hydropower entities are concerned (i.e. investors and owners / operators). As stated in Article 1 of the guidelines, revenue sharing provides for the equitable share of benefits and cost arising from the sustainable development of the nation's hydropower resources as a long-term revenue sharing arrangement between the main consumers of electricity services in towns, cities and industry and the local communities hosting hydropower projects adversely affected by the project in their locality.⁹ Ultimately the cost of revenue sharing is internalized in the retail electricity price.

The real question is what is the appropriate balance between the level of revenue sharing (as a percentage of revenue generated by the hydropower project) and the impact of revenue sharing on retail tariffs. There are many examples on how this balance is stuck in other countries for ERAV to consider. Among the most recent example is India has announced that its new hydropower policy will incorporate a provision where 2% of the revenue from hydropower projects will be allocated to local area development funds in addition to the 10% allocated to the province. This is to pay for long-term local development and welfare improvement schemes in the project impact zone.

Next Steps in Viet Nam

The work plan in Appendix B proposes a two-stage Pilot project.

Stage 1 is proposed for 14 months, commencing in April 2008. Primarily this work would feed into the legislative process to put legal instruments for benefit sharing in

⁹ It does not adversely impact on the financial affairs of hydropower developments. Quite the opposite - benefit sharing is a policy tool designed to enhance and promote mobilization of investment in sustainable hydropower development, which has become one of the major lending criteria of international financial institutions in both the public and private sectors. Moreover it is strongly advocated by industry groups such as the International Hydropower Association in their hydropower sustainability guidelines and protocols.

place in the 2009-2010 timeframe. The challenge is to find financing partners to meet this schedule. Stage 1 is thus proposed as a “fast track” option (in terms of securing donor contributions and government counterpart funds). It aims to provide the minimum activity, on a least-cost basis maximizing use of Vietnamese professional capacities to:

- i). Establish a benefit sharing council and temporary revenue sharing account;
- ii). Prepare a model fund Charter and other key instruments needed to implement revenue sharing grants according to the guidelines, introducing and evaluating modifications as appropriate;
- iii). Undertake activities consistent with the guidelines to assess and recommend measures for equitable sharing of electricity access and enhanced entitlements for natural resource access - which also respond to the expressed desires of the A’Vuong community that were revealed when they reviewed the draft guidelines;
- iv). Provide at least one-cycle of grant application and award using a nominal budget to test the delivery and monitoring mechanisms for measures that are typically to be supported by revenue sharing grants; and
- v). Prepare a systematic article-by-article review of the guidelines in order to make amendments and provide recommendations on finalizing the legal instruments needed to successfully introduce benefit-sharing mechanisms nationally.

Stage 2 would extend the timeframe of the pilot from 12 to 24 months in total (at least). It will support more substantial efforts to prepare the capacity building tools alongside and informed by the pilot testing of implementation mechanisms.

Stage 2 could start by January 2009 and be fully integrated with Stage-1 of the pilot, providing the resources to:

- i). Test a wider range of grant awards, in perhaps two or more cycles;
- ii). Assess in more detail the development effectiveness of benefit sharing measures adopted in the pilot and the linkages to poverty reduction targets;
- iii). Develop a more comprehensive set of capacity building tools based on the pilot, as well as relevant international experience to facilitate rapid and smooth startup of benefit sharing on other hydropower projects in Viet Nam;
- iv). Enable ERAV to draw in regional and international expertise in preparing legislation, capacity building tools and a scaling-up program; and
- v). Concretely enhance the environment and management components of the A’Vuong hydropower project by virtue of the larger revenue sharing grants.

Apart from the guidelines and work plan for the pilot some other recommendations are provided in Section 5 of this report. These concern the need for a tariff impact study and the need to assess what is needed to strengthen the institutional capacity of ERAV to rollout the national program. The tariff impact study specifically is needed to evaluate the implications of revenue sharing combined with the financial

obligations of hydropower projects for environment and water resource protection (i.e. to finalize recommendations on the level of revenue sharing as a percentage of total project revenue).

While the provinces will be primarily responsible to implement the project-specific arrangements for benefit sharing, ERAV on behalf of MOIT will maintain responsibility for ensuring that an effective and consistent approach is followed in different provinces. Moreover, because funds for revenue sharing will start to accumulate in a central reserve fund once the legislation becomes effective, implementation of benefit sharing mechanisms is not constrained by lack of financial resources. There will likely be considerable pressure from the Provinces for specific guidance and tools to help them move quickly in implementing the measures.

ERAV was established in late 2005, and became functional in early 2006. It is mandated to develop the economic, technical and safety aspects of power sector regulation and heavily involved in power market reform and tariff reform. The fact that ERAV was able to provide strong leadership for this TA and pro-actively involve its relatively young and highly capable staff bodes very well for the pilot project, and subsequent steps to introduce benefit-sharing mechanisms nationally.

1. THE TA PROCESS

1. This first section provides a roadmap to key material in the 3 Volumes of this Final TA Report. And it describes the 3-stages, or components of the TA process.

1.1 INCEPTION STAGE

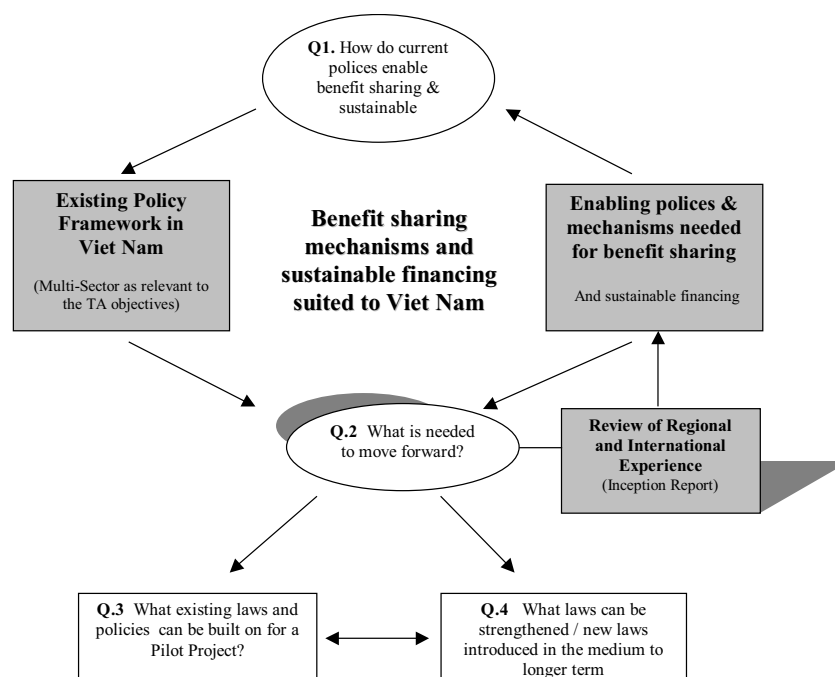
2. The TA Inception Report was issued in September 2006. It explains how many developing and developed countries have advanced the sustainable development of their hydropower resources by introducing mechanisms for benefit sharing in their legislation (see Appendix C Volume 2).

3. Apart from setting out the work program, the TA Inception Report provides a generic stakeholder analysis to consider potential longer-term roles in benefit sharing mechanisms and outlines the consultation and information dissemination plan for the whole TA (see Appendix H Volume 1).

1.2 COMPONENT 1 – THE POLICY REVIEW

4. The policy review undertaken as Component 1 of the TA considered Viet Nam's existing legislation and policies in the framework shown in Figure 1. The presentation of results is structured around responses to the four questions noted in Figure 1 and in the SWOT analysis (strengths, weaknesses, opportunities, and threats).

Figure 1: Analytical framework used in the policy review



5. The review looks at a hierarchy of legislation and decree-laws in different socio-economic and resource management sectors that define the wider policy and legal environment for benefit sharing on hydropower projects. The sector-by-sector review of existing legislation and policies looks both at primary legislation and summarizes key secondary legal instruments in 10 categories:

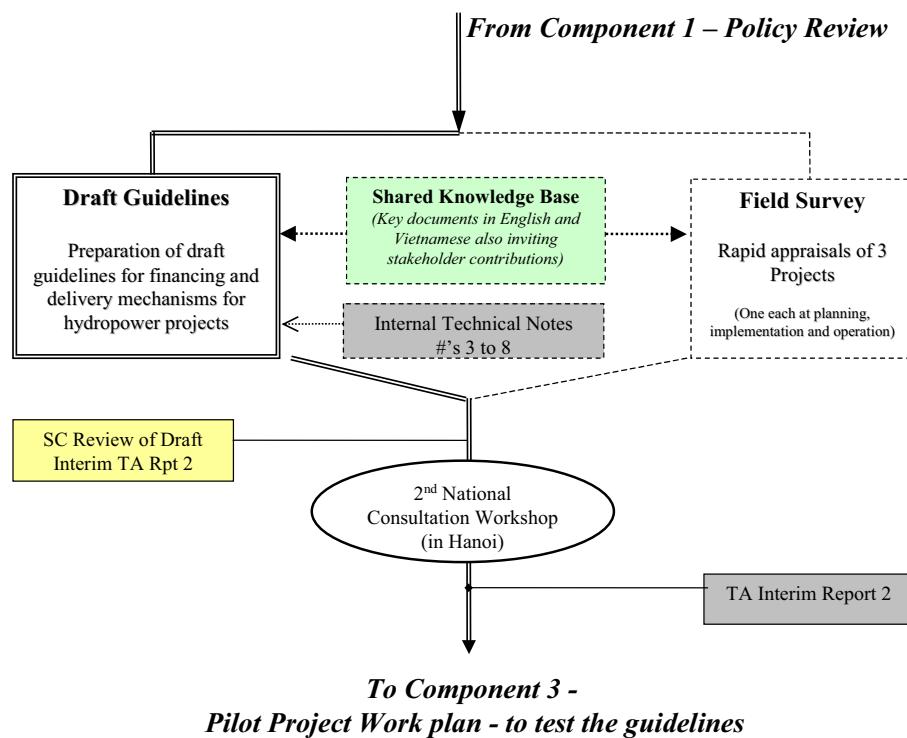
- 1.1 The State Constitution
- 1.2 The Power Sector
- 1.3 The Water Resources Sector
- 1.4 The Environment Sector
- 1.5 The Forest Sector
- 1.6 The Agriculture Sector
- 1.7 The Fisheries Sector
- 1.8 The Finance Sector including Land Administration Laws
- 1.9 The Social Sectors including laws relevant to Ethnic Minorities
- 1.10 International Conventions and Agreements ratified by Viet Nam

6. Appendix D in Volume 2 provides a summary of the policy review and Appendix E provides a SWOT analysis of Viet Nam’s policy environment from Interim Report 1.

1.3 COMPONENT 2 – PREPARING THE GUIDELINES

7. The draft guidelines were prepared in the process illustrated in Figure 2. The contents were informed by (i) the policy review (ii) by international experience on benefit sharing, as captured in the Inception Report, and (iii) by the field surveys and rapid appraisals of three hydropower projects.

Figure 2: Framework for TA Component 2 activities



8. Three projects at different stages of development were selected for the rapid appraisal program, in order to better understand how to assess benefit sharing needs and involve stakeholders from the early stage of project planning, namely:

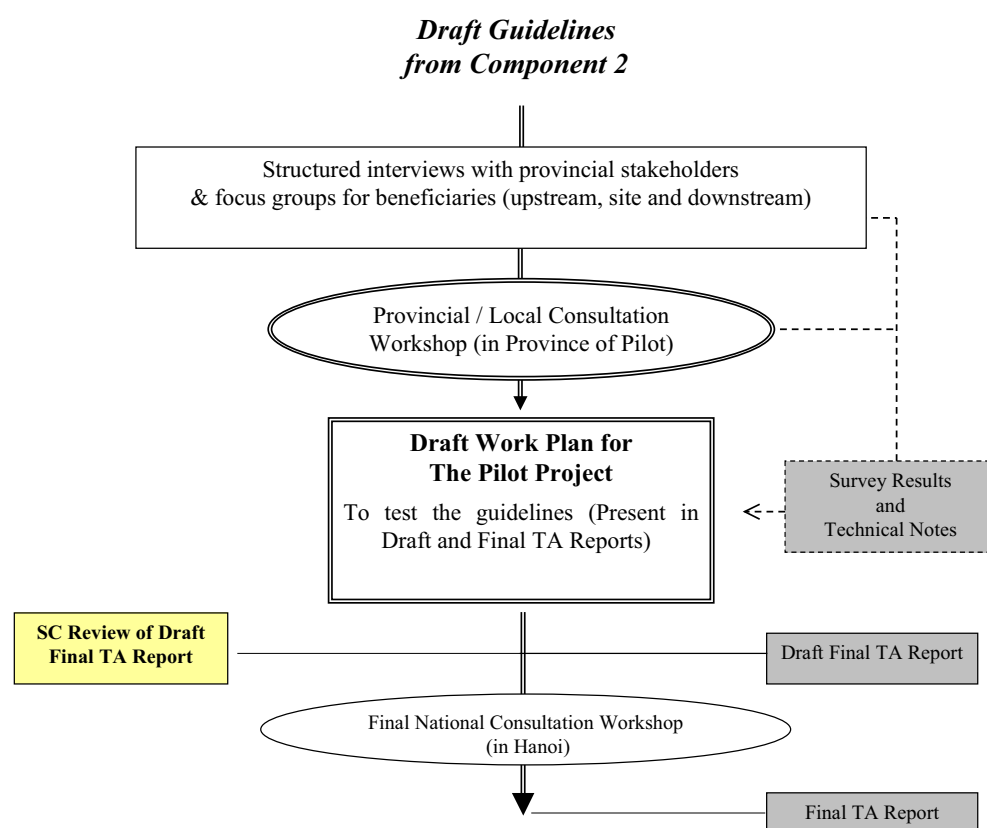
- (1) The 160 MW Song Bung 4 hydropower project in the highland area of Quang Nam Province in central Viet Nam, which is at an advanced state of project approval. SB4 is due to be developed with ADB technical and financial support;
- (2) The 210 MW A’Vuong hydropower project now under construction by the Electricity Authority of Viet Nam (EVN), which is located in the same basin as SB4 and is due to become operational in 2008; and
- (3) the 70 MW Song Hinh multi-purpose hydropower, irrigation and flood management project located in Phu Yen Province in south central Viet Nam, which was commissioned in 2002.

9. The rapid appraisal reports that are provided in Volume 3 of the Final Report show the prevailing socio-economic conditions in the areas around the three projects. They show how local people living in these areas have been adversely affected (or expect to be) by the project, as well as their preferences for different forms of benefit sharing. The actual zones where people were interviewed corresponds to the project impact zones as identified by the EIA.

1.4 COMPONENT 3 - AGREEING ON THE PILOT WORK PLAN

10. The 3rd stage of ADB TA-4689 (VIE) focused on obtaining feedback to establishing consensus on the content of the draft guidelines and preparation of the work plan to field test the guidelines using the A’Vuong hydropower project as a pilot.¹⁰ The main tasks are illustrated in Figure 3.

Figure 3: Component 3 Activities



¹⁰ The project impact zone as defined in the EIA and agreed in consultations on the fund Charter.

11. The work in Component 3 started when NIAPP staff returned to the A’Vuong project area firstly to hold structured interviews with communities living in the project impact zone (i.e. in the upstream and downstream zones of the project impact area as well as the reservoir perimeter, the resettlement areas and the areas around the main project facilities including the dam and powerhouse). And secondly for NIAPP and IES staff directed by ERAV to begin discussions with Quang Nam Province on preparations for a provincial level consultation workshop.¹¹

12. After the work plan for the pilot project was prepared in draft form, this was reviewed by ERAV and presented for discussion in the final Steering Committee meeting and consultation and the 3rd and final national consultation workshop that took place in November 2007.

1.5 THE TA CONSULTATION FRAMEWORK

13. In the Inception Stage of the TA a stakeholder assessment was prepared as one of the first tasks. From that a Consultation plan was prepared (shown in Volume 2 Appendix H).

□ Consultation Principles

The general aim was to adopt a collaborative approach to discuss each stage in the TA process. Specifically:

- To establish an open and transparent process with timely access to information for all stakeholders and interested parties;
- Target the key stakeholders, but also allow other potential stakeholders and interested parties to self-identify, participate or receive information;
- Pro-actively solicit the insights and views of national-level stakeholders from different disciplines on the TA policy review aspects and draft guidelines;
- Proactively solicit and adequately reflect the views of the target beneficiaries, government and social organizations who will participate in the Pilot Project;
- Encourage inputs and solicit insights from international stakeholders working in Viet Nam in related fields such as power sector reform, rural development, sustainable management of natural resources, poverty alleviation and ethnic community support (e.g. INGOs and donors);
- Provide opportunities for stakeholders to establish relations and exchange views (i.e. in workshop settings);
- Ensure the TA outputs are widely and effectively disseminated; and
- Establish a knowledge base in ERAV with the TA materials, as well as key resource documents and information supplied by stakeholders

□ Consultation Rationale

The reasons why a collaborative approach is adopted include the interests to:

- Improve awareness and understanding of the principles of benefit sharing;
- Improve coordination and effectiveness in undertaking the TA tasks;
- Improve the quality of the outputs;

¹¹ NIAPP, staff from the National Institute for Agricultural Projection and Planning (NIAPP under MARD) that were subcontracted to undertake the rapid appraisals and field work under the TA

-
- To build consensus and ownership of the outputs; and
 - To help ERAV understand the range of issues to address and to reach wider consensus on future steps, and collaboration to formulate the sector policy framework.

The full stakeholder analysis was prepared as Technical Note 1 and is used as an internal working document for ERAV staff.

1.5.1 INTER-AGENCY STEERING COMMITTEE

14. As agreed between the ADB and the Government an Intergovernmental Steering Committee was established for the TA. The Committee met to review the progress of work at key stages and members attended the national consultation workshops to be able to understand views of different organizations and participate in discussions to introduce new ideas. The steering committee had representatives from Ministries and agencies that are likely to play a major role in the formal inter-government consultation process on a Decree-law and other supporting instruments like a Circular or Decision.

15. Appendix I of Volume 2 has the terms of reference for the TA Steering Committee.

1.5.2 NATIONAL CONSULTATION WORKSHOPS

16. In keeping with the consultation plan, three national consultation workshops were held. The minutes of these workshops and the PowerPoint presentations are provided in Appendix F Volume 2. Presentations are available both in Vietnamese and English languages.¹²

First national consultation workshop

17. The first national consultation workshop was held on April 7th 2007 immediately after the second meeting of the Steering Committee. About 50 people attended. Participation including Steering Committee Members available, ERAV staff, representatives from government entities, EVN Project Management Boards, international and local NGOs, donors and independent power producers.

18. The workshop was an effective way to present and discuss the principles of benefit sharing, the TA activities and the findings of the policy review. The participants largely welcomed the initiative to develop benefit-sharing mechanisms for hydropower projects in Viet Nam and many were interested in the next steps. A number of participants also offered the cooperation and support from their organization and agreed to share documents on legislation they were involved in that had a bearing on the benefit sharing guidelines, including proposed new biodiversity legislation which enables payments for ecological services - but does not specify the funding sources. ERAV agreed to make copies of the minutes of the workshop available on request.

19. Some of the key discussions at that stage were about:

- Understanding the difference between compensation and resettlement support that applies to the construction phase of projects and captured in the project capital budget (i.e. Decree 197) versus benefit sharing and long-term revenue sharing, the cost of which are reflected in the tariffs structures and not paid by the hydropower entity;
- Moving from a relatively narrow definition of project affected people, which in Viet Nam, focuses on the resettled community and resettlement host community, to include all groups of people who are adversely affected by hydropower projects in different ways.

¹² Those requesting soft copies of the presentations in English or Vietnamese would need to contact ERAV directly.

As clearly shown in the rapid appraisals in volume 3 many people living in the project impact zone of the hydropower project as defined by EIA have their resource access transformed in different ways, even if they did not lose land specifically.

- Understanding which models of international practice in benefit sharing are perhaps most relevant to the Vietnamese situation (in this instance there are many in developed and developing countries examples to choose from, but at the same time there are many common elements in the mechanisms used), and.
- Recognizing the fact that benefit sharing is already reflected in the legal framework of Viet Nam such as in the forestry and biodiversity sectors, including both national legislation and commitments Viet Nam has been made a signatory to international conventions. This analysis is highlighted in the policy review summary provided in Appendix D of Volume 2.

Second national consultation workshop

20. The second national consultation was held in July 2007 to discuss the draft guidelines. It was attended by many of the same people who participated in the first workshop - invited representatives of government agencies, local and international NGOs and donor agencies. There was general consensus on the direction taken by the guidelines and consensus on the need for a decree level legal instrument to cover long-term benefit sharing arrangements on hydropower projects. This would match the approach of having a decree level instrument (Decree 197) to provide for compensation and resettlement during the construction phase of hydropower projects.

21. International NGOs attending that meeting noted that the current draft of a new biodiversity law was under consideration by government. This draft also endorsed the principle of benefit sharing in biodiversity field (genetic resources) and authorized payments for ecological services, defined as actions the communities and groups take that improve the ecological services that other people may enjoy and benefit from. For example, communities who plant trees in watershed forests would be entitled to receive some incentive payment from other water users that would benefit from the planting of trees (e.g. sharing of downstream benefits). It was discussed that payment for ecological services could be incorporated as an authorized expenditure for revenue-sharing funds, subject to local preferences. For example, planting trees in the watershed and other farming measures to stabilize soils can reduce soil erosion and sedimentation, which in turn helps to reduce the rest of the sedimentation rates, and maintain generation capacity and revenue from the hydropower facilities.

Final national consultation workshop

22. The final consultation workshop was held in November 2007 to discuss the work plan for the pilot project and provide participants with feedback on the provincial level workshop that was held in September and Quang Nam Province.

23. The presentation included a summary of the material presented in the first two workshops because some of the participants were new, and as noted in the minute (Appendix F, volume 2) some of the questions referred back to the earlier stages in the TA process. Otherwise, there was agreement that the national consultation group should be continued for the pilot project with some expansion including more private sector dissipation. Details of the discussions are provided in Appendix F.

1.5.3 PROVINCIAL-LEVEL WORKSHOP IN QUANG NAM PROVINCE

24. In September 2007 a series of meetings with provincial officials and a provincial-level workshop was held in Tam Ky Town, Quang Nam Province. Provincial, district and commune levels, social organizations and local community representatives attended the workshop.

25. These meetings had multiple purposes. One aim was to explain the results of the focus group sessions that were held earlier with the local communities in the A'Vuong project impact zone to provincial agencies and People's Committee leaders. These focus group meetings were held to obtain local views on the draft guidelines, the form of the pilot project, and the roles they would play in implementation of the pilot including the expenditure levels needed to test the mechanism for delivery of measures they preferred.

26. Other aims were to understand the views of the provincial departments and provincial leaders on how the benefit sharing mechanisms could tie into existing rural development programming, as well as their views on implementing the pilot project.

27. Annex G in Volume 2 provides the workshop report and meeting reports in three parts: (i) discussion at the main workshop (ii) discussion in a subsequent meeting with Quang Nam Province Leaders, and (iii) the outline of the work plan and the lists of participants in these meetings. Despite the interest in discussing specifics of the pilot project, much of the discussion was about the principle of benefit sharing and the general provisions of the guidelines.

28. The key outcome was the Provincial authorities highly welcomed the initiative to develop benefit sharing mechanisms and agreed they should be implemented soon in order to bring benefit to the project affected people, as Quang Nam province has high potential for hydropower development. The provincial leaders fully endorsed the notion of field testing the guidelines and offer their full cooperation to pilot test the guidelines on the A'Vuong project.

29. Their views are reflected in the work plan. But at the same time the work plan includes an inception stage in the pilot project, where the final implementation details will be agreed. Quang Nam Province agreed to appoint a benefit sharing Council as soon as requested by ERAV to facilitate the process. In fact, the concept of benefit sharing struck a highly responsive chord in the province. They expressed the view that the province was left to finance, from provincial budget allocations, many activities in the impact zone of hydropower projects to help people adjust to the new circumstances and the process itself takes many decades.

1.5.4 FIELDWORK AND LOCAL COMMUNITY CONSULTATIONS

30. The third and key aspect of the consultation process was to listen to the concerns and views of the local communities, particularly their preferences as to the types of local development measures that could be supported by revenue-sharing grants and the mechanisms to deliver them. Annex M in Volume 2 provides a summary of the generalized findings across the rapid appraisals:

31. Communities living in areas defined as the project impact zone in the EIA were consulted. In brief:

1. It is clear that poverty rates and food security concerns are uniformly high in areas around the projects, especially in the upstream zones. The average poverty rates in the project area the rapid appraisal looked at was 54%, close to double the national poverty rate - that has recently fallen below 30 percent. In some communes the poverty rate approaches 70%, even in the Song Hinh area, where the hydropower project was completed four years ago.
2. Food security is also an issue in some parts of the project impact zone. The official household survey for 2005 shows that 70% of households in A'So village and 75% of households in Ta Reng village in the A'Vuong project area do not have enough rice to eat for the year and malnutrition is a problem. People must rely on subsidiary crops like cassava for their staple diet.
3. Subsistence strategies remain largely based on multi-purpose utilization of available land, forest, water and biodiversity resources. The relative contribution ecosystem services make

to dietary and other household needs, and cash income, vary. Most people felt this resource base has, or would, come under increasing pressure from the hydropower project located in their area for various reasons.

4. Adverse impacts of the construction and operation of hydropower projects are felt (or expected) throughout the project impact zone, not just for displaced people and in resettlement areas.¹³ The survey collected information on the actual loss of recession agricultural production from changes in river flow conditions, reductions in fish catch and local income from fisheries, etc. and loss of income from various forms of gathering force(?) products, where forests were submerged, but people did not actually lose households or agriculture lands. There were concerns also on the resulting pressure on the diminished resource base where more people need to rely on the same remaining areas.

The findings as a whole confirmed the need to use the geographic boundaries of the project impact zone, as defined in the project EIA, as a starting point to determine what communes should participate in benefit sharing arrangements. In particular, it was important to avoid a narrow focus on resettled people and resettlement host communities when thinking about long-term benefit sharing mechanisms for affected communities.

5. All the communities highly welcomed benefit sharing. And while there were many adverse effects they needed help to adjust to in the long-term, they also said they needed financial resources to take advantage of the new local development opportunities that the hydropower project created for them (opportunity plus empowerment – as a key to poverty alleviation).
6. Many different views about what local development measures should be funded by revenue sharing were identified. This made it clear that a bottom-up approach is needed, and that consistent with approaches in other countries a menu of options must be available to the local community. Communes wanted different things according to their particular circumstances, which varied throughout the project impact zone.
7. Most important, the local communities felt, is there must be a transparent and fair mechanism that enabled all groups living in the impact zone of hydropower projects to have an equal opportunity to participate in benefit sharing. They felt strongly that mechanisms needed to allocate grants in a flexible, transparent and fair way (incorporating social accountability and anti-corruption measures).
8. One unexpected result was that people were very interested in equitable access to electricity services. There were three aspects to this. One was that rates of electrification in the project impact zone especially in the upstream areas tended to be low, close to 30%. Therefore there was a lot of interest in ensuring electrical supply connection as part of the project.

The second aspect was that the poorest households within the villages sometimes could not afford the cost of wiring or appliances, even when an electricity service was available. Therefore the possibility of support for the poorest groups for household wiring (excluding the resettled people, which EVN already supports with wiring) should be an eligible expenditure from the revenue-sharing fund.

The third aspect was that local communities felt there should be a preferential electricity rate

¹³ See Volume 3. For example, downstream of Son Hinh, the local perception is the reduced river flows have led to more disease in their recession agriculture crops (lowland crops grown along the river margin fertilized by nutrient-rich flood water). Local people estimated that crop yield in these areas has reduced 20% as compared to pre-project conditions. In villages immediately downstream of Song Bung 4, in the dewatered diversion section between the dam and powerhouse local people believe that fish production will reduce. The EIA studies suggest this will be the case, by as much as 80 - 90% once the dam is impounded and project is operational.

for the affected communities for a period of time. This discussion extended to consideration of special support for households where there was little capacity to afford electricity because of death or sickness of the head of household or income earners.

9. People were interested in low-cost entitlements or permissions to improve their resource access and diversify income sources. This discussion centered on forest access rights.
10. Preferences on which organizations should be involved in delivery of measures varied considerably. Some people preferred government departments to deliver the measures they needed (like extension services), while others preferred to work with established mass organizations and unions.
11. Almost all women interviewed wanted the Women's Association to participate in the process to decide how revenue sharing grants were awarded and to participate directly in the delivery of benefits to ensure women's interests were safeguarded.
12. Overall the unanimous view was a bottom-up process was needed to decide how revenue-sharing funds could be accessed and invested locally.

2 THE POLICY REVIEW

32. The TA Inception Report explains how many developing and developed countries have advanced the sustainable development of their hydropower resources with benefit sharing mechanisms. The policy review goes on to show how sustainable development is a central theme of Viet Nam's Electricity Law (2004) - defined in law as, "development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs, on the basis of a close and harmonized combination of economic growth, assurance of social advancement and environmental protection".¹⁴

33. The sector-by-sector review undertaken also reveals that benefit sharing is already recognized in Viet Nam's current primary legislation in various forms. Direct revenue sharing is also explicitly recognized in laws in other resource management sectors. For example, forest sector sub-laws encourage the sharing of revenue from sustainable extraction (and sale) of forest products to "...ensure a harmonious benefit-sharing relationship between laborers, the State and the State Forest Enterprise (SFE) on one hand, and on the other, between SFEs and localities".¹⁵

2.1 MAIN CONCLUSIONS

34. Overall, the policy review suggests that:

- Viet Nam's current legal framework embodies three forms of benefit sharing suited to people adversely affected by resource development projects, namely:
 - (i) sharing project outputs and services equitably (like water and energy services from dam projects);
 - (ii) sharing monetary benefits of resource extraction and use (revenue sharing); and,
 - (iii) non-monetary forms of benefit sharing (like receiving enhanced entitlements to offset permanent loss or reduction of resource access, or related entitlements).
- The Constitution of the Socialist Republic of Vietnam (1992) makes resource management subject to market mechanisms for stable, long-lasting resource use and to move away from sole reliance on State budgets. Revenue sharing is a market mechanism to internalize social and environment costs of infrastructure projects in the tariff.
- Consensus about who is eligible to participate in benefit sharing mechanisms is important. Adversely affected people are presently identified in project EIA processes (e.g. as part of project impact identification, impact analysis, impact prediction, and evaluation of impact significance).¹⁶ Generic EIA guidelines issued by the National Environmental Agency (NEA) are also helpful. They defined adversely affected people as those who experience risk or loss of resource access, land rights and property, or both.¹⁷

¹⁴ Article 4 of the Electricity Law (2004) that calls to, "... develop sustainable power sector based on optimal development of all sources..." and Article 1 of the revised Law on Environment Protection (2005) that came into effect in July, 2006 – which defines sustainable development for all sectors of the economy.

¹⁵ From Article 3 of PMO Decision 187 (1999), On Renovation of the Organization and Management System of State Forest Enterprises

¹⁶ Recent hydropower EIAs in Viet Nam (like the Song Bung 4 EIA update 2006), identify affected people in the reservoir impact zone; displaced people and the resettlement impact area; downstream and upstream impact zones, in which impacts will be mainly on riverine fisheries and other reduction in resource access; and the project construction and auxiliary lands impact zones.

¹⁷ General guideline book for EIA of development projects in Viet Nam
<http://www.vub.ac.be/MEKO/Vietnam/EU/eiageneg.html>

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- National ethnic minorities represent a high proportion of people adversely affected by hydropower projects in Viet Nam, often 50% to 70% of those affected; much more than other electricity generation options.¹⁸ Thus benefit sharing with people adversely affected by hydropower projects would complement key social policies and Constitutional provisions to assure socio-economic advancement of national ethnic minorities and people living in areas of difficult or extremely difficult socio-economic conditions.
 - Laws recognize that local action is needed (joint responsibility) to mitigate the adverse impacts of hydropower projects and to implement environment and water resource protection measures. This is important both to hydropower investors and electricity consumers. For instance, sustainable management of land and forests in the catchment, as called for in current water laws, can in many cases help to maintain available capacity (MW) and annual energy production (GWh) from hydropower assets. This stabilizes long-term revenue flows from the project (e.g. by reducing rates of soil erosion and reservoir sedimentation that can degrade storage capacity and hydro peaking capacity over time). In this manner, benefit sharing is in the interests of investors, hydropower operations, the local communities and electricity consumers.
 - On institutional arrangements, the review suggests there is no urgency to introduce new institutional capacity to deliver benefit-sharing measures to local communities adversely impacted by hydropower infrastructure and operations. Provincial Peoples' Committees (PPCs) already have a range of legal instruments and institutional mechanisms to draw upon for this purpose, like the current arrangements for state and provincial programs (e.g. Program 66, 133 and 135). Partnership arrangements can also be formed with existing mass organizations. Nevertheless, coordination mechanisms and roles of different entities and provincial departments need to be clearly set out in regulations.¹⁹
 - Over time, benefit sharing needs both a project and a river basin perspective. This is because some adverse effects of hydropower projects are local and project-specific. Other adverse impacts are cumulative. For instance, downstream impacts (positive and negative) due to changes in the river flow regime arise from the combined effect of all hydropower projects in the basin, not just the first or the last project in a cascade sequence.²⁰ Thus it will be important in the medium-term to link sub-laws on hydropower benefit sharing to the laws defining the roles of river basin organizations and the adoption of IWRM practices (as prescribed by the water resource legislation).
 - Decisions on financing mechanisms are key in taking first steps. Financing mechanisms for benefit sharing need to be (i) market-based (ii) consistent with a competitive power generation market, and (3) harmonized with new laws on financing the environment and water resource protection obligations of hydropower projects. This can ensure the three sets of mechanisms are mutually reinforcing and exploit opportunities for simplification.

35. While the policy review supports a progressive approach to introduce mechanisms for benefit sharing, the timetable for power market reform suggests a sub-law would ideally be in place by 2009-2010. This would coincide with the first major step in power market reform (in Stage 1) when a competitive generation market will become functional. The bulk tariff provisions are key to defining the financing arrangements for benefit sharing.

¹⁸ This is because hydropower projects are located in upland areas where ethnic minorities are concentrated and the comparatively large environmental and social footprint of hydropower projects that affect resources access and ecosystem services that many rural people rely on.

¹⁹ Local capacity to manage ecosystems adversely affected by river flow regulation and hydropower operations need strengthening, in-line with current laws on managing adverse impacts of projects on ecosystems.

²⁰ For instance, all reservoir projects in a cascade sequence add to the change in river flows and the transformation of downstream ecosystem functions and services – which can affect resource access, subsistence income sources and livelihoods.

36. It is also timely to start thinking about ways to harmonize financing mechanisms for benefit sharing with sub-laws on the financial obligations of enterprises (hydropower entities) for water resource and environment protection. The Government is actively developing new laws in this area, for instance, to implement the Politburo Resolution 41-NQ/TW, 2004 on environmental protection in the period of accelerated national industrialization and modernization and PMO Decision 34/2005/QĐ-TTg promulgating the government action plan on the resolution.²¹ The action plan calls for several measures, including a new law on environment tax by 2008, as well as measures to “encourage the participation of private sectors and adopt mechanisms to encourage enterprises of all economic sectors to provide environmental protection services ...”.

37. Sub-laws on financing provisions in the Law on Environment Protection (LoEP, 2005) offer perhaps the best example of a financing vehicle to consider for benefit sharing. While it is yet to be done, the LoEP stipulates that Environmental Protection Funds will be set up at local, sector and central levels, financed in part by, “ ... funds from organizations and individuals for prevention and restriction of adversely environmental impacts of their production, business and service activities” (Article 115), and the State shall, “encourage enterprises, organizations and individuals to establish environmental protection funds”.

38. Work reportedly underway on revisions to the Water Resource Law (1998) may be very relevant, especially any clarification about how enterprises (including hydropower projects) will contribute to water resource protection financing in future, and how the existing water resources utilization fees collected from enterprises are targeted.

2.2 THE SWOT ANALYSIS

The second part of the policy review is an integrated analysis of Viet Nam’s policy regime using a SWOT analysis format (strengths, weaknesses, opportunities and threats). This focuses on four aspects, namely:

- i. Establishing consensus on benefit sharing principles
- ii. Introducing mechanisms to deliver benefit sharing measures
- iii. Introducing mechanisms to improve the management of ecosystem services transformed by hydropower projects that link to rural livelihoods, and
- iv. Introducing mechanisms to sustainably finance these measures

Figure 2-1 is a one-page summary of the SWOT analysis.

²¹ Like Viet Nam’s first Environment Tax Law expected in 2008, call for in Decision (34/2005/QĐ-TTg)

Table 1: Summary of SWOT Analysis – Longer term benefit sharing

Aspect	Strengths (Up to now)	Weaknesses (Up to now)	Opportunities (For the future)	Threats (Up to now + future)
Establishing consensus on benefit sharing policies	Benefit sharing principles are implicitly recognized in Viet Nam's body of primary legislation and explicitly reflected in policies and decree laws in many sectors.	While the broader principle is recognized, power sector laws and regulations do not call for sharing monetary benefits (revenue sharing) at the local level.	Benefit sharing and managing ecosystem services are used as tools to optimally and sustainably develop hydropower (i.e. balance economic, social, environment dimensions).	The case for benefit sharing needs is not well argued. Measures will not be implemented or piecemeal approaches are adopted.
Introducing mechanisms to deliver benefit sharing measures	Existing national / provincial rural development programs can deliver measures adversely affected groups of people prefer. New delivery institutions are not required.	People indirectly affected by hydropower projects do not receive targeted assistance, or livelihood support that systematically recognizes the extent to which they are adversely impacted.	Investments supported by benefit sharing improve rural incomes, while connecting to water resource and environment protection measures and steps to improve hydropower performance.	Local development programs that project-affected people can access remain ad hoc and time limited.
Introducing mechanisms to improve the management of ecosystem services	Current laws and policies provide a modern approach to conservation and improved management of ecosystem services. They recognize the important link of environment services to rural livelihoods.	Many ecosystem management policies established in primary legislation await secondary laws, or have yet to be implemented in a comprehensive way. Local capacity is an inhibiting factor.	Investments supported by benefit sharing improve and enhance local capacity for conservation and environment management.	Lack of effective action to put existing policies into practice (for ecosystem management) leads to continued environmental degradation by hydropower projects.
Introducing sustainable financing mechanisms	Viet Nam's broader policy is to develop market mechanisms to advance stable resource management and socio-economic development. Policies on use of market mechanisms are well suited to financing benefit sharing.	There is no clear indication of how environment and social costs of hydropower development will be internalized in competitive power market reforms, particularly in bulk tariff schedules and structures.	Financing mechanism(s) that contribute to optimal and sustainable hydropower development conform to competitive market principles. Reliance on state budgets is reduced.	The costs of benefit sharing are not argued successfully, and instead, are viewed as putting undue upward pressure on electricity tariffs. When a balance needs to be stuck.

2.3 LOOKING AHEAD TO THE FUTURE POLICY FRAMEWORK

39. The policy review suggests three parallel tracks can be pursued in a comprehensive, long-term approach to benefit sharing on hydropower projects. These stem from the three types of benefit sharing noted at the start of this summary.

- **Equitable sharing of access to power services.** Project-affected people are targeted within existing rural electrification programs and budgets, as appropriate. There may be some limitations. It may not be safe to connect households in some remote highland areas due to electrical safety codes; or, some communities may prefer to use financial entitlements for traditional livelihood needs first, then improved power services later.^{22,23}

The policy rationale and legal basis is:

- The Electricity Law (2004, Article 60, item 3) that states “...organizations and/or individuals of all economic sectors engaging in power generation, distribution and electricity business in rural, mountainous areas of difficult and quite difficult socio-economic conditions shall enjoy preferences and incentives in investment, finance...”
- Decision 176, 2004, on approving strategy for power industry development (Article 11)²⁴ that stresses the aim ... “to provide budget capital support for projects on electrification in rural, mountainous areas... (and) in service of economic development as well as hunger eradication and poverty alleviation in these areas”, and
- Decision 176, 2004 (Article 1), that seeks an electrification target of 90% and 100% of rural households by 2010 and 2020, respectively; and places priority on hydropower development.

Targeting is a common feature in many national programs. Provincial People’s Committees set the priorities for rural electrification within the national electrification targets and reconcile competing investment needs. This would need coordination between the DOITs and MOIT, in respect to national rural electrification initiatives, and also with the Committee for Ethnic Minorities.

- **Sharing monetary benefits of hydropower generation (revenue sharing).** Local communities “hosting” the project, who permanently give up their land, or have their resource access permanently transformed can receive a share of project revenue according to a formula defined in regulations.

The policy rationale and legal basis for this is:

- The principle of revenue sharing with local communities is already established in Vietnamese law. A market-based approach would center on two long-term aspects:
- First, providing a catalyst for local development through beneficiary-defined livelihood restoration, enhancement and community development schemes. Such revenue sharing facilitates an arrangement where the main consumers of electricity services in towns, cities and in industry more equitably share the full benefits and costs of hydropower development with the project-affected communities (as well as the full risks).

²² The Role of Local Communities in Hydro-planning, UNESCAP/E7 Regional Workshop on EIA for Hydropower Development In Cambodia, Laos PDR Thailand and Vietnam: Communities adversely impacted by hydropower projects attending this workshop said they expect some benefits from dam development, but they are concerned about the costs. For example, many people stated that they ‘cannot eat electricity’.

²³ <http://www.ngoforum.org.kh/Environment/Docs/mekongpeople.htm>

²⁴ PMO Decision 176 approving the strategy on development of Vietnam Electricity Industry in the 2004-2010 period, with orientations towards 2020.

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- Second, to link local development sustainable management of the hydropower asset (improving long-term revenue generation) and meet environment and water resource protection obligations. This seeks to combine the benefits of sustainable development by internalizing the environment and social costs of hydropower development in the tariff.

These approaches treat all project-affected people as “development” partners in hydropower projects. The market-based financing mechanism (revenue sharing) is consistent with laws on stable and long term management of natural resources, in this case hydropower resources.

- **Non-monetary benefit sharing.** People adversely affected by hydropower projects receive extra resource access entitlements (e.g. enhanced forest access rights; preferential or exclusive rights to develop reservoir fisheries, preferential rights to land downstream to practice freshwater aquaculture, etc.).

The policy rationale and legal basis is:

- laws that establish protection of biodiversity must, “... be implemented based on the assurance of the rights and legitimate benefits of local communities” (LoEP, Article 30), and “... localities within river basins are jointly responsible for protecting water environments ... and ensuring benefits for local residential communities”, (LoEP, Article 59).
- Many resource access rights are within the authority of the Provincial People’s Committees to grant (via MARD, DOFI or DoNRE authorization activities).
- These arrangements help offset loss of entitlements people enjoyed before the project, which may have been a significant component of their income or means of subsistence.

This requires a conscious and systematic effort to identify the opportunities available to populations upstream, in the reservoir area or resettlement areas and downstream during SEAs and EIAs.

40. Figure 2-1 illustrates how these three aspects may be reinforcing elements in a progressive, longer-term benefit sharing policy framework.

Figure 2-1 Illustration of a comprehensive approach to longer term benefit sharing

Options / Attributes	Three Parallel Tracks (Based on the 3-types of benefit sharing)		
	Type-1 Measures	Type-2 Measures	Type-3 Measures
	Equitable access to power services	Revenue sharing / monetary benefit sharing	Non-monetary benefit sharing
Approach	<ul style="list-style-type: none"> - Combined with Type-2 and -3 benefit sharing - Target rural electrification to people adversely affected by hydropower projects - Make these people among the first to benefit from the project - When electrical safety and other conditions permit. 	<ul style="list-style-type: none"> - Fund local development and livelihood initiatives - Improve management of ecosystems transformed by hydropower projects - Link income raising to sustainable management of hydropower assets plus environment and water resource protection obligations 	<ul style="list-style-type: none"> - Award entitlements, like forest access and fisheries rights - Grant other livelihood-related entitlements preferred - Make entitlements transferable, if appropriate - Consider tax incentives
Possible Timing	<ul style="list-style-type: none"> - No limit on when to start measures 	<ul style="list-style-type: none"> - Linked to competitive market for generation (2005-2014) - Suggests policy should be in place by 2009 - Over time move from project to project + basin orientation 	<ul style="list-style-type: none"> - No limit on when to start measures
Policy rationale / legal basis	<ul style="list-style-type: none"> - Equitable access to electrical services (EL, 2004, Articles 4 and 46) - Priority to improve power services in ethnic and poor areas (EL, 04 (Article 60) and Decision 176 (Article 1)) - Targeting power service to 90% & 100% of rural homes by 2010 & 2020, respectively (Decision 176, 04 (Article 1)) 	<ul style="list-style-type: none"> - Precedents in sector laws (e.g.) - Revenue sharing between local communities and State Forest Enterprises (SFEs), Decision 187, 1999, Article (item 3) - Revenue sharing between the State and Provinces on water utilization fees (WL, 1998, Articles 7 and 23) and Decree 179 (1999, Article 8) 	<ul style="list-style-type: none"> - Many entitlements are within PPCs decision authority - Tax incentives (preferential tax rates) already are identified in laws e.g. in areas of difficult and extremely difficult socio-economic conditions
Possible cost / financing mechanism	<ul style="list-style-type: none"> - No incremental funds - Establish additional criterion to targeting annual budget allocations for rural electrification capital and O&M 	<ul style="list-style-type: none"> - Percent of gross generation (international experience and pilot project can guide recommendations) - Percent of water utilization and environment protection fees - Any financing mechanism is ultimately reflected in tariffs 	<ul style="list-style-type: none"> - No incremental funds - Measures involving tax incentive are not revenue neutral
Policy instruments	<ul style="list-style-type: none"> - Guidance on policy as applied to MOIT rural electrification programs (e.g. decision, or circular) - PPC endorsement, and implementation guidelines - Link to current discussion of a new Rural Electrification Fund (set as a policy principle in deployment of funds) 	<ul style="list-style-type: none"> - Decree-law or equivalent PMO approval on the financing mechanism. - Links to framing the competitive power market rules - Deliver aspects require strengthening SEA & EIA and Decree 197 guidance - Eventually requires decision on role of RBOs in basin level benefit sharing 	<ul style="list-style-type: none"> - Guidance on type and scope of the entitlement that may be awarded - MOF clarification on any tax incentives applicable - Possible clarification on tax on income from entitlements (income activity or transfer of entitlement)

41. Linking benefit sharing to the project cycle. Interim Report 1 also looks at how to reflect benefit-sharing principles in the earlier stages of project selection, design and implementation. One aspect is the cost of benefit sharing needs to be incorporated in the feasibility study. A clearly specified regulation is needed. In that way (i) the revenue sharing formula set out in regulations can be reflected in economic and financial appraisals of hydropower projects, (ii) physical measures can be incorporated in the project feasibility and detailed design work so as to build in operational flexibility, and (iii) any incremental costs can be reflected in the project capital cost.

42. Early consideration of benefit sharing in the project cycle can also lead to a “least cost” approach overall. For example, it is frequently less costly to build flexibility into the dam design to allow for future changes to reservoir operations and to re-optimize benefits over time, than to shut down projects to attempt major retrofits. Indeed, worldwide experience shows that reservoir operations need to adapt to changing economic circumstances in the river basin over time, and to different societal priorities for water use and environment protection. Not compromising the ability of future generations to meet their needs and priorities is a major aspect in how sustainable development is defined in Vietnamese law.

43. The wider family Environment Assessment (EA) analytical tools used at different stages of the project cycle, and the EIA together with the RAP in particular, represent an important entry point to introduce benefit-sharing assessments. Agreements can be made at an early stage, such that once the project is commissioned the measures come into effect smoothly. This can reduce the risk of controversy on the project and costly delays.

44. Moving further upstream in the planning process, the LoEP (2005, Chapter III Articles) calls for Strategic Environment Assessments (SEAs) to inform decisions about sectoral strategies and plans of a national scale (which includes the power sector and hydropower sub-sector). The laws also call for SEAs in integrated river basin planning at the inter-provincial level (Article 14). The general principles of benefit sharing and ecosystem management can be incorporated in SEAs, and also in hydropower screening and ranking studies (through quantitative and qualitative factors).

3. THE GUIDELINES

45. The guidelines were presented in Interim Report –2. The chapter structure format is typical for a PMO or Government Decree of this nature.

- Chapter 1. General provisions
- Chapter 2. Process to introduce benefit-sharing mechanisms on hydropower projects
- Chapter 3. Equitable sharing of electricity access and services
- Chapter 4. Entitlements for enhancing resource access
- Chapter 5. Revenue sharing
- Chapter 6. General implementation provisions

46. This chapter structure will make it easier to transform the guidelines into a proposed decree after the pilot testing is completed.

3.1 CHAPTER CONTENTS

47. The guidelines propose that provinces would establish project-specific revenue sharing funds for both existing and new hydropower projects operating in their jurisdiction. These funds would be administered by a benefit sharing Council (or equivalent body) appointed by the Provincial-level Peoples' Committee (PPC). Councils will have inclusive membership and include representatives drawn from the local community, project authorities, local development agencies, mass organizations, river basin entities and other stakeholders with interests in local development, poverty alleviation, and sustainable resource management. In addition to fund administration (e.g., awarding grants to eligible parties, auditing and monitoring how money is spent, etc), the Councils will provide Peoples' Committees with advice on all three forms of benefit sharing.

48. The procedures and institutional arrangements already recognized or used in Viet Nam are proposed to implement benefit sharing. For example, procedures to form benefit sharing Councils are similar to provisions set out in Decree 197 to form resettlement and compensation Councils for the implementation phase of hydropower projects.

49. Each revenue sharing fund will have a fund Charter developed in a collaborative process and approved by the Provincial Peoples' Party. These Charters will set out how the fund will operate (e.g., designate who is eligible to apply for revenue-sharing grants, the proportion of funds allocated for grant applications in different communes, the grant evaluation criteria, and the monitoring and social accountability provisions). Grant application categories are broadly defined in the guidelines, but Councils will have considerable latitude to reflect local priorities in deciding the use of the funds based on local preferences and needs.

50. The guidelines also encourage cooperation between river basin organizations and Councils, particularly for projects on inter-provincial rivers and for cascade hydropower schemes. This recognizes that some adverse effects of hydropower development are project-specific, while others are due to the cumulative impact of all the hydropower projects in a particular basin.

51. Finally the guidelines recognize that environment protection, water resource protection and benefit sharing are reinforcing elements of sustainable hydropower development. Thus the guidelines encourage provinces to harmonize, and where feasible, to merge funds for these purposes, as may be prescribed in other legislation. This helps avoid unnecessary duplication of effort and capture the synergy that is possible with complementary local action. Separate accounts can be managed through three different "windows" in the fund, regulated by MoNRE and MOIT as necessary.

CHAPTER 1: GENERAL PROVISIONS

52. Box 1 highlights the contents and key features of Chapter 1.

53. Article 1 says benefit sharing is a long-term arrangement between consumers of electricity services in towns, cities and industry and local communities hosting hydropower projects in their locality. This enables equitably sharing of the benefits and costs of hydropower development. Article 1 makes it clear that revenue sharing is not a profit sharing relationship between the project entity and local people for several important reasons.²⁵

54. Article 2 called for a staged process to introduce benefit sharing in Viet Nam; starting with new hydropower projects over 30 MW installed capacity²⁶ and multi-purpose projects with the dam height above 15 meters. When ERAV determined the timing was appropriate existing hydropower projects would follow this.²⁷ Small hydropower projects would also be included, where the EIA showed adverse impacts on local people.

55. The approach was changed to introduce the mechanism simultaneously on new and existing hydropower projects with a legal requirement for an EIA. It is expected the benefit sharing decree would come into effect in 2009, or shortly after, in parallel with the competitive generation market. This helps ensure a level playing field for existing and new hydropower projects in long-term contracts with single buyers and for spot market sales.

56. Article 3 clarifies who is eligible to participate in benefit sharing programs. Broadly the approach is to link the definition of people adversely affected by the project to the project impact zones identified in the EIA process. National standards for project EIAs call for the prediction and mitigation of adverse impacts and the designation of a project impact zone.

57. Figure 3-1 illustrates what this means in practice. It gives a clear basis to identify those communes entitled to participate in benefit sharing programs. The subsequent process of developing the fund Charter (see Chapter 5) allows all the communes deemed eligible to participate in benefit sharing to have a voice in the distribution of available funds.

Box 1: Chapter 1 Contents and Key Features

Contents:

- Article 1: Scope of regulation
- Article 2: Subject of application
- Article 3: Definition of key terms
- Article 4: Objectives of benefit sharing
- Article 5: General principles of benefit sharing
- Article 6: Forms of benefit sharing encouraged on hydropower projects

Key features:

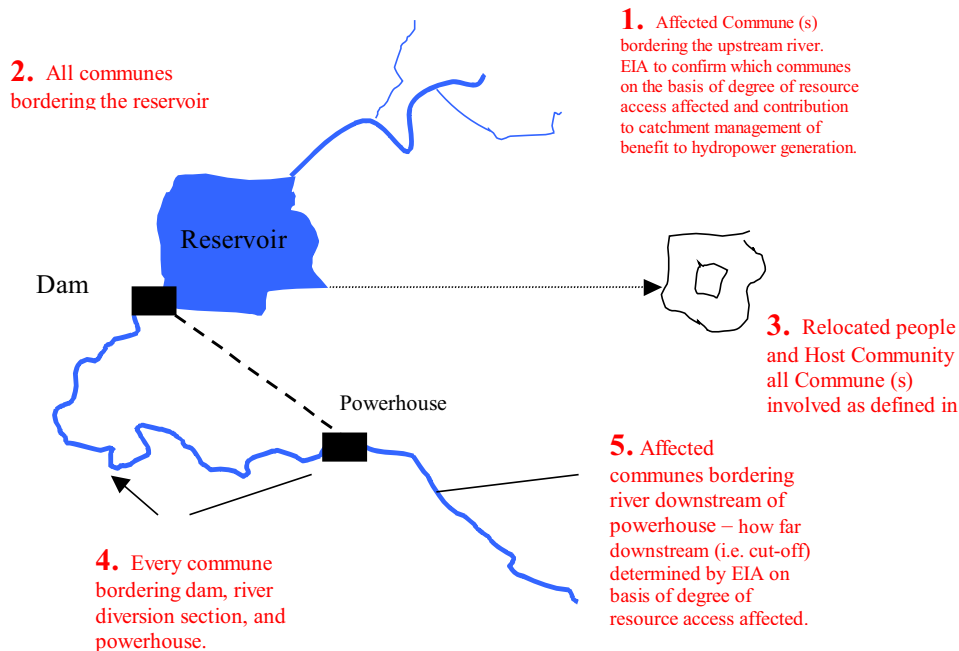
- All grid-connected projects above 30 MW, and others with a legal requirement to have an EIA
- The definition of adversely affected people linked to project impact zones in hydropower EIAs
- Three forms of benefit sharing (equitable access, resource access entitlements and revenue sharing)
- Links to targets for poverty reduction in comparison to national / provincial poverty rates

²⁵ This deals with the misconception that profit sharing is the same as revenue sharing. The underlying principle of revenue sharing is the environmental and social costs of hydropower are internalized in the tariff. Revenue sharing is a “pass through” as far as the hydropower entity is concerned. Profit sharing is an entirely different principle that links to the rate of return on investment in the project and affects the ability to mobilize capital.

²⁶ The 30 MW criterion conforms to the definition of small hydro in Viet Nam.

²⁷ There are more than 30 existing large hydropower projects in Viet Nam (above 30 MW) at present.

Figure 3-1: Linking the definition of project affected people to the EIA



58. This definition extends the narrow focus in thinking only about displaced people and the resettlement host communities as adversely affected. It includes other households and communities living in the project impact zone who have their resource access permanently reduced or transformed by the project in some degree. This reflects international experience as well as the actual situation on the ground in Viet Nam, as shown in the project appraisals. Essentially the philosophy is that all people living in the project impact zone, who host the project, are eligible to participate in benefit sharing and become long-term partners in the project they must live with.

59. In discussions it was agreed greater consistency and some strengthening of practices on hydropower EIAs was needed to ensure project impact zones are clearly delineated. Articles 8 and 33 indicate MoNRE takes responsibility for this aspect, as part of normal work to progressively improve hydropower EIAs.²⁸

Articles 4 and 5 set out the objectives and principles of benefit sharing on hydropower projects. They say the State encourages the three forms of benefit sharing presented previously in the policy review that are embodied in the current Vietnamese legal framework. Article 5 also makes the link between poverty reduction and benefit sharing. It explains that one objective of benefit sharing in the near term is to help people move toward at least provincial average poverty rates. This recognizes that people who would be adversely affected by hydropower projects live with the lowest poverty rates in the country. Moreover they can face additional impoverishment risk if little is done to support them to adapt to the adverse effects of the project – as well as respond to the opportunities it creates.

²⁸ This is wholly consistent with the Generic EIA guidelines issued by the National Environmental Agency (NEA) that defined adversely affected people as those who experience risk, or loss of resource access, land rights and property, or both.

CHAPTER 2: PROCESS TO INTRODUCE BENEFIT SHARING ON HYDROPOWER PROJECTS

60. This chapter identifies the preparations for benefit sharing for each stage of project cycle, starting in the up-front strategic planning and hydropower ranking studies (where projects are identified), through project preparation, design and implementation stages.

61. The project cycle is important for several reasons.

Box 2: Chapter 2 Contents & Key Features

Contents:

- Article 7: Steps to factor benefit sharing into all stages of the project cycle
- Article 8: Procedures to adopt during strategic planning stages
- Article 9: Procedures to adopt during project planning and feasibility stages
- Article 10: Procedures to adopt during detailed project design and implementation stages
- Article 11: Procedures to adopt on existing hydropower projects
- Article 12: Fundamentals of arrangements for benefit sharing during operation phases
- Article 13: The role of river basin organizations in benefit sharing

Key features:

- Links benefit sharing assessments to early strategic studies for hydropower ranking and basin studies;
- Incorporates benefit sharing assessments in feasibility study for flexibility to identify least-cost approaches;
- Begins discussion with adversely affected groups during consultation on the EIA and R&C;
- Requires a rapid environmental appraisal for existing projects to reconfirm the project impact zone
- Covers preparations to optimize the 3 forms of benefit sharing and the role of river basin organizations.

62. First, a clear indication of how local communities stand to benefit from the project over the long term helps reduce risks, controversy and promote collaboration from the start. Risk reduction is important not only to potential investors and the government, but also to the host community, which may face many impoverishment risks.

63. Secondly, early consideration of benefit sharing can lead to lower costs over the economic life of the project, as well as improved performance and revenue generation.

64. Looking at benefit sharing issues related to management of downstream ecosystem services during project feasibility and EIA study, for example, can inform design decisions about the type and size of outlet valves and structures that determine flexibility in operation (e.g. what downstream flow releases are possible). Provisions can then be built-in during construction for little incremental cost, which are otherwise expensive to retrofit later. This built-in flexibility for operation of hydropower projects gives

regulators more scope to rebalance priorities for economic, social and environmental performance in the future. It also gives owners greater scope to optimize dispatch for different tariff structures and power system requirements in future.

65. Articles 8 to 10 describe how benefit-sharing considerations need to be factored into strategic level studies, like river basin plans and hydropower ranking studies that help decide which hydropower projects will be built; and project level studies, including feasibility and detailed design studies and related EIA and RAP studies.

66. Article 11 indicates how benefit sharing can be introduced on existing projects. Because there may be no EIA (or modern EIA) to identify the project impact zones, Article 11 calls for rapid environmental appraisal of existing projects to enable the benefit sharing Councils to start discussion with local communities on the fund Charter.

CHAPTER 3: EQUITABLE SHARING OF ELECTRICITY ACCESS AND SERVICES

67. Viet Nam has achieved a high national electrification ratio. But as noted in the rapid appraisals, electrification ratios are as low as 33 percent in some project impact zones, particularly upstream areas. And even if transmission lines connect to the commune, poorest households often cannot afford to pay the one-time household connection fee.

68. As noted in Box 3, Article 14 makes it mandatory to include the cost of electrifying the resettlement areas of hydropower projects in the project capital budget. This ensures the good practice established by EVN will be followed by IPPs, when the competitive generation market is introduced in 2009 and maintains a level playing field for hydropower investors.

69. Article 15 calls for mandatory assessment of rural electrification needs, service improvements and costs of meeting these needs for other communities in the project impact zone. Such assessments would be done in the project feasibility study and updated in detailed design.

70. This assessment gives PPCs the information they need to decide on targeting people adversely affected by hydropower projects within provincial and state rural electrification budgets, consistent with Electricity Law principles.

71. Recognizing the need for prioritization, Article 15 suggests starting with resettlement host communities follow by settlements bordering the perimeter of the new reservoir, then communities that border the main river stem and tributaries. Benefits sharing Council would, in any event, recommend priorities for new electrification or service improvements in the project impact zone to PPCs, based on the local power supply situation and the expressed views and needs of communities.

72. Article 16, calls for investigation of off-grid supply using small-scale renewable options, where it is uneconomical for grid connection in project feasibility studies. It does not call for the mandatory investment in off-grid supply, just the explicit study and costing of these options, consistent with the Electricity Act. Article 17 enables use of revenue-sharing grants to help the poorest households in the project impact zone with the one-time costs of a household connection; and according to local preference, to provide other support such as power safety training and help to buy energy-efficient lighting to reduce electricity bills. Separately, ERAV is responsible to look at the tariff structures in project impact areas.

Box 3: Chapter 3 Contents & Features

Contents:

- Article 14: Costs for electrification of resettlement communities in project capital budgets
- Article 15: Targeting communities living in the project impact zone with rural electrification funds
- Article 16: Off-grid supply in areas uneconomical to connect to the grid
- Article 17: Additional measures to enhance electricity access for the poorest households
- Article 18: Organization for implementation of equitable electricity access at state and provincial levels

Key features:

- Mandatory requirements for public and IPP projects to electrify resettlement areas as part of project capital cost
- Steps to target or give priority consideration to electrification in other affected areas, or improve/modernize supply within existing rural electrification budgets
- Requirements to evaluate grid and off-grid potential when grid connection is uneconomical during project feasibility studies and submit these for consideration
- Other support measures for poorest groups including support for on-time wiring connection, power safety training etc via revenue sharing – if preferred

CHAPTER 4: ENTITLEMENTS FOR ENHANCING RESOURCE ACCESS

73. This Chapter calls for systematic attention to the steps Peoples Committees at all levels might take to improve natural resource access for people living in the project impact zone. And also help

people take advantage of the new local development opportunities the project brings, more broadly.

Box 4: Chapter 4 Contents & Features

Contents:

Article 19: Types of measures for enhancing resource access and livelihood opportunity

Article 20: Procedures to identify local preferences for additional entitlements

Article 21: Provincial level support to granting entitlements to enhance resource access and livelihood opportunity

Key features:

- Requires systematic consideration of low-cost / no-cost measures to improve local resource access that can be extended;
- Encourages People's Committees at all levels to formulate a clear policy to support enhancing entitlements in project affected areas;
- Calls for and identifies systematic procedures to do this routinely;
- Requires the benefit sharing Council to monitor and report on gaps/tensions between local needs and the granting of entitlements.

74. The rapid appraisals showed that rural people were uniformly concerned about local access to nature resources and the direct and indirect ways the project affects the local resource base and ecosystem functions.

75. Article 19 defines a range of entitlements and permissions that People's Committees at all levels can routinely consider during the planning, implementation and operation stages of hydropower projects. The list is representative only. Any entitlements extended would be based on the needs and interests of local communities.

76. Some entitlements may be permitted by law but have not yet implemented in that particular area, for example: permission to co-manage headwater forests as provided in Forest Laws; giving permission to use downstream land for aquaculture; giving preferential rights for reservoir fisheries; or giving preferential access to job training

(labor and semi-skilled) related to new employment opportunities with the hydropower project. New laws that are under consideration may also come in to play such as the planned Biodiversity Law that is expected to enable payments for ecological services.

77. Related measures might include deferment of local fees or taxes in ways that enable people to start new enterprises, like promoting eco-tourism, reservoir fisheries or lake transport enterprises following the creation of the reservoir. These same local enterprises may also apply for startup funds from the revenue sharing fund. In practice many entitlements are no cost or low cost.

78. Articles 20 and 21 encourage PPCs at all levels to put in place systematic processes to ensure that people and communities adversely affected by hydropower projects groups have an opportunity to say which resource access and other entitlements are most suited to their needs and preferences. This assessment can be made during the EIA process and resettlement (RAP) process for new hydropower projects. Article 20 also provides that benefit-sharing councils will advise PPCs on the need to consider (and local interest) for such entitlements when drawing up local development plans. Councils are to monitor and report on progress in their annual reports.

CHAPTER 5: REVENUE SHARING

79. This chapter outlines the mechanisms and procedures for revenue sharing. It is organized in five sections:

- Section 1: Measures
- Section 2: Financing mechanisms for revenue sharing
- Section 3: Benefit sharing Councils and fund Charters
- Section 4: Principles and Procedures of Fund Administration
- Section 5: Other Considerations

80. Articles in Sections 1 and 2 shown in Box 5a (Articles 22 to 26) explain the type of local development measures that can be supported by revenue sharing and the steps needed to establish the funds. It also shows the revenue sharing formula for making payments into the fund.

Box 5a: Chapter 5 Contents & Key Features - 1 of 2

Section 1 +2 Contents:

- Article 22: Types of measures supported by revenue sharing
- Article 23: Establishment of a central reserve fund by the electricity regulator (ERAV)
- Article 24: Establishment of project-specific revenue sharing funds
- Article 25: Mechanisms for payments into revenue sharing funds
- Article 25: Financing formula for calculating payments into revenue sharing funds

Key provisions:

- Establishment of a central reserve fund by ERAV to facilitate financial transfers
- Establishment of project-specific revenue sharing funds by provinces
- Formation of benefit sharing Councils to manage each fund
- Financing formula to remit money into funds, similar to the existing water utilization fee for hydropower projects

81. Article 22 indicates that funds will be awarded to successful grant applications submitted by eligible parties. There are several reasons for a grant-based system. These include (i) transparency (ii) simplification and consistency procedures, and (iii) ensuring that benefit sharing Councils do not get large and cumbersome.

82. Grant contributions can be made:

- to increment existing provincial and national targeted development initiatives for village-scale infrastructure, extension services, training and capacity building;
- for community-based initiatives to promote cultural and welfare improvements;
- to enable mass organizations to operate loan or credit facilities;
- to expand access to electricity services (Chapter 3); and
- for other forms of local investment identified in the fund Charter.

83. These other forms of local investment include payments for ecological services that involve actions taken by people living in the project impact zone (eligible parties), like planting trees in headwater forests that benefit people and ecosystems functions downstream. The guidelines do leave considerable latitude to the benefit sharing Council to re-work the grant categories based on local needs and preferences. The grant categories will be transparently set out in the fund Charter, which is subject to approval by the Provincial-level Peoples Committee.

84. Article 22 stipulates that revenue sharing funds should specifically help reduce poverty levels of people adversely affected by hydropower projects. The Council will recommend such targets and formulate criteria to award and evaluate grants taking into account poverty reduction targets.

85. Article 23 authorizes ERAV to establish a central reserve fund to (i) assist with the smooth startup of individual revenue-sharing funds on both new and existing hydropower projects, and (ii) thereafter, facilitate the transfer of revenue into the project funds. This will help, for example, to ensure there is money to do the work needed to put the benefit-sharing arrangements in place on new

hydropower projects in the first year of operation. This is needed because there will be no money until remittances to the project-specific fund are regularized.

**Box 5b: Chapter 5 Contents & Key Features
2 of 3**

Section 3 + 4 Contents:

- Article 26: Functions and duties of the benefit sharing Councils
- Article 27: Composition of benefit sharing Councils
- Article 28: Preparation and contents of the fund Charter and annual reports
- Article 29: Determination of parties eligible to apply for revenue sharing grants
- Article 30: Principles for allocating revenue sharing among communes in the project impact zone
- Article 31: Principles for administration of grants
- Article 32: Fund administration costs and anti-corruption measures
- Article 33: Criteria for determining successful grant applications
- Article 34: Delivery mechanisms for measures supported by revenue-sharing funds

Key provisions:

- A fund Charter to transparently set out all criteria for operation of the fund
- Inclusive membership on the benefit sharing Council
- Simple grant applications procedures with support to eligible parties preparing grant applications
- Limits to the amount spent on fund administration
- Monitoring and evaluation to adjust funds available to different grant categories to maximize poverty reduction
- Transparency, social accountability and anticorruption measures
- Annual fund reports to the PPC and a report to the citizens

86. Article 24 gives Provincial-level Peoples' Committee authority to establish revenue funds for hydropower projects in their jurisdiction. The model and legal precedent is the Environment Protection Act (LoEP, 2005), Article 115, that stipulates the State shall, "encourage enterprises, organizations and individuals to establish environmental protection funds", as a provincial decision.²⁹

87. Article 25 indicates the formula for calculating the amount of money to remit into funds each year from the revenue generated by the project from the sale of electricity. This formula reflects the method for calculating the water utilization fee paid by hydropower projects (authorized under the Water Law). It is based on a 2% fixed percentage of the gross annual generation (GWh) from the previous year, metered at the point of connection to the national grid.

88. While 2% is incorporated in the guidelines, the actual percentage will have to be established in a policy debate when the guidelines are transformed into a formal decree. The guidelines also say the fixed percentage can be revised in regulation by MOIT, on the advice of ERAV.

89. Box 5b shows the Articles in Sections 3 and 4 of Chapter 5 that deal with benefit sharing Councils, the contents of fund Charters, and the principles and procedures of

fund administration.

90. Article 26 indicates one of the first tasks of the Council is to draw up the fund Charter in collaboration with the local communities and submit this for approval. Article 27 ensures that the composition of benefit sharing Council will be inclusive.

91. Article 28 sets out the steps to identify the communes that can participate in benefit sharing programs. The geographic boundaries of the impact zone of the project defined in the EIA is the

²⁹ Similar provisions may be contained in the new Water Resource Act (see the policy review).

starting point for the dialogue between the benefit sharing Council and local communities on this question, as discussed in Chapter 1 of this report.

92. Articles 29 and 30 provide the principles and framework for allocating available funds to grant programs in the different communes located within the project impact zone. A key aspect to note is Article 30 limits the percentage of funds to be allocated to the resettlement areas to 30% of the total available funds. This percentage can be increased in special cases according to criteria that are specified, subject to agreement between the Peoples Committee and the Ministry of Industry. This 30% limit is included so that all people living in the project impact zone have an equal chance to participate in benefit sharing, for reasons noted in footnote.³⁰ This also reflects the discussion in Chapter 1 of Articles 3 to 6 and it goes to the very heart of the rationale for benefit sharing.

93. Articles 31 and 33 provide a framework for awarding grants on the basis of applications submitted by eligible parties. It specifies the manner in which Councils will help eligible parties prepare their grant applications.

94. Article 32 identifies the types of expenditures that can be made for fund administration and calls for steps to prevent the abuse of power, including the consideration of integrity pacts.³¹ It limits administrative expenses to 15% of the annual remittances into the fund, with the provision to adjust the ceiling upon the approval of the PPC and MOIT jointly.

95. Article 34 provides that existing institutional arrangements would be used to deliver the measures supported by revenue-sharing grants. Delivery mechanisms should reflect preferences of the participants, for example, whether this support is given through an increment in the budget of existing targeted national programs, or delivered through a mass organization like the Women's Union.

96. Box 5c lists the Articles in Section 5, called, 'Other Considerations'. Article 36 indicates for hydropower projects on inter-provincial rivers (i) the revenue-sharing fund will be set up in the province where the majority of the hydropower facilities are located (i.e. dam site and powerhouse) (ii) the second province will be responsible to decide whether it wishes to establish its own benefit sharing Council, or make arrangements to work with the first Benefit sharing Council, and (iii) the total revenue-sharing amount (as per Article 25) will be split between the provinces according to the proportion of population living in communes in the project impact zone in each province at the time of project commissioning (the last available official census).

97. Previously, Article 27 also indicated that ERAV and MoNRE representatives should be represented on the benefit sharing Council of projects on inter-provincial rivers, as well as projects where the geographic boundaries of the impact zone defined by the EIA includes two or more provinces. Article 36 also provides an arbitration procedure involving MOIT in the event of disputes between provinces.

³⁰ The rationale is fourfold (i) resettled people often represent a small percentage of the total number of people living in the project impact zone who are adversely impacted by the project in different ways - as shown in the rapid appraisals (ii) resettled people already receive support under Decree 197, which deals with compensation for land and property recovered by the State (iii) if there are a large number of people resettled, those costs (Under Decree 197) are reflected in higher project capital budgets, and (iv) thereafter, all people living in the project impact zone, not just the resettled area, face many similar challenges adapting their livelihoods strategies to the changed local conditions caused by the project, including changes in resource access and ecosystem functions and services. Similarly, all the people living in the project impacts zone need equal support to take advantage of new development opportunities created by the project. The mandate of the benefit sharing Council is to balance all these factors and extend support in a fair and transparent way.

³¹ An integrity pact is a simple, written agreement that lists things that everybody agrees they will do to avoid abuse of power or corruption.

98. Article 37 indicates that all benefit sharing measures and revenue-sharing grants needs to be consistent with the long-term local development plans for the area.

99. Moreover, in cases where a grant application implies an ongoing commitment from the

Box 5c: Chapter 5 Contents & Key Features 3 of 3

Section 5 Contents:

Article 36: Projects on inter-provincial rivers or affecting more than one Province

Article 37: Harmonizing with planning for local infrastructure investment and rural development extension services

Article 38: Harmonization of benefit sharing funds with project-specific funds for water resources and environment protection

Key provisions:

- Revenue sharing funds are split between provinces according to the proportion of population living in communes in the project impact zone, in each province;
- MOI arbitrate in the case of disputes;
- Benefit sharing and revenue sharing grants must be consistent with local development plans;
- Provinces are encouraged to merge project specific funds for revenue sharing and those dealing with financial obligations of hydropower projects for environment and water resource protection

provincial budget, the concerned provincial Department needs to be consulted before the grant is approved by the benefit sharing Council. This is important, for example, if the grant to build a local school is requested and the province would then have a long-term commitment to budget for the salaries of teachers. This is similar to current arrangements under targeted programs such as Programs 133 and 135.

100. Article 38 indicates the State will encourage provinces to harmonize, and where practical, merging revenue-sharing funds with project-specific funds as may be authorized by other legislation that are designed to meet the financial obligations of hydropower production enterprises for environmental protection and water resource protection.³²

101. Clearly it would be more practical to have one fund for hydropower projects with three separate financing windows than have three separate funds.

102. In that arrangement, MoNRE or DoNREs would establish the principles to

manage the windows for environment and water resource protection measures. MOIT or DOI would establish the principles for managing the window for revenue sharing (as in these guidelines), and in addition, take overall responsibility to ensure the financing mechanism for the merged fund is consistent with the rules of the competitive electricity generation market.

103. A single fund instead of two, or three, provides scope to harmonize crosscutting themes of sustainable management of hydropower assets. More details on this approach are provided in the policy review in Interim Report 1 and in Appendix D.

³² As detailed in the policy review in the Interim Report 1, the law on environment protection already authorizes provinces to establish project specific funds for enterprises to finance their environment protection obligations. These obligations are expected to be clarified further in the environment tax law expected in 2008. Similarly, the existing water law provides for payment by hydropower projects of 2% of gross revenue for water utilization is to be used for water resource protection measures. It is reported that an update to the water law is in progress.

CHAPTER 6: GENERAL IMPLEMENTATION PROVISIONS

104. Chapter 6 sets out the implementation responsibilities for benefit sharing at three levels as shown below:

- (i) Ministries and organizations the state level
- (ii) Peoples Committee's at all levels, and
- (iii) Hydropower entities, including EVN and independent power producers (IPPs)

105. All Decrees in the electricity sector have similar provisions and these guidelines follow the same structure. As mentioned previously, the power industry restructuring and the rules for the power market are currently under development. They will be finalized in stages in the next ten years. Therefore, the details of the benefit sharing mechanisms in the guidelines concerned with financing will have to be adjusted to reflect what is decided on the rules for the operation of the competitive generation market, and in particular the revenue-sharing formula, and the detailed procedures for remitting money into the central reserve and project-specific funds.

106. It is for this reason that a number of Articles are included in the guidelines to ensure there is a consistent approach to social and environmental management aspects of hydropower projects between public and private sector projects.

4.2 INTER-MINISTRY CIRCULAR

107. The inter-ministry circular would be a supporting legal instrument that sets out more detailed steps that People's Committees at all levels can take to implement the guidelines (or the decree in its final form). The following table is the section structure for the outline version of the Circular provided in Annex 2.

TOC – Outline of the Inter-Ministry Circular
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- | |
|--|
| <ol style="list-style-type: none">I. General provisionsII. Benefit sharing principles and philosophyIII. Identification of eligible parties for revenue sharingIV. Establishment of project-specific revenue sharing fundsV. Functions, duties and composition benefit sharing CouncilsVI. Allocation of revenue-sharing funds to eligible parties and investmentsVII. Procedures for selecting and awarding revenue-sharing grantsVIII. Delivery mechanisms for measures supported by revenue-sharing grantsIX. Other ConsiderationsX. Implementation Arrangements |
|--|

108. The text of the Circular will be completed and modified to reflect the results of the A'Vuong pilot project. As part of that process, consideration can be given for additional guidance, such as to further clarify or strengthen provisions in the Circular for accountability, transparency, and poverty reduction.

4. PILOT PROJECT WORK PLAN

109. The main output of the 3rd Stage of ADB TA-4689 (VIE) was the work plan to pilot test the draft guidelines for benefit sharing mechanisms. The work plan included as Appendix 2 of this main report was prepared as a standalone document that can be sent to donors. Then some of the material that is repeated in this section is found in the summary of the work plan.

4.1 OBJECTIVES AND DESIGN CONSIDERATIONS

What are the objectives?

110. The three main objectives of the Pilot are:

1. To field test and modify the draft guidelines and provide recommendations on further development of legal instruments on benefit sharing suited to Vietnamese conditions.
2. To develop capacity building tools to scale-up the introduction of benefit sharing mechanisms on hydropower projects in Viet Nam in a systematic and consistent manner, once the legal framework is in place; and
3. To contribute to the sustainability of the A'Vuong hydropower project itself by enhancing the social and environmental components of the project and improve the livelihood opportunities for the most marginalized groups.

111. These objectives reflect the purpose of the TA and the need for practical tools to introduce benefit-sharing mechanisms according to the Vietnamese situation and needs.

112. Four considerations help to shape the scope and design of the pilot project. These are:

- i). Feedback from people living in the impact zone of A'Vuong and officials of Quang Nam Province, their ideas on the guidelines and their preferences on what to include in the pilot;
- ii). The nature of the activities needed to test the guidelines on the A'Vuong project, in relation to its own unique features, and then extrapolate the results for all existing and new hydropower projects;
- iii). The legislative timetable for the power market reform process that the pilot project results need to feed into, and
- iv). The source of finance and budget level for the pilot.

113. The legal instruments for benefit sharing, in particular revenue sharing mechanisms, would ideally be introduced at the same time the new rules for the competitive electricity generation market come into effect, sometime in mid to late 2009. That means results are needed, at latest in early 2009, if they are to inform the legislative process in a timely way.³³

4.2 IMPLEMENTATION APPROACH:³⁴

114. In view of these considerations, a 2-level budget is proposed to implement the BSM Pilot. It consists of a Stage 1 and Stage 2 budget.

³³ The financing source and budget for the pilot is not yet established. The actual revenue sharing mechanism will not have legal effect until legislation is in place. This means a financing plan is needed. This also means the final elements of the work plan must be decided in the Inception Stage of the pilot, after the amount of financing is confirmed.

³⁴ A PowerPoint presentation is available on this report – National Workshop 3 presentation.

(1) **Stage1 budget:** Or fast-track budget to provide the minimum activity on a least-cost basis primarily using Vietnamese professional capacities to:

- /1. Establish a benefit sharing council and temporary revenue sharing account;
- /2. Prepare a model fund Charter and other key instruments needed to implement revenue sharing grants according to the guidelines, introducing modifications as appropriate;³⁵
- /3. Undertake activities consistent with the guidelines to assess and recommend measures for equitable sharing of electricity access and enhanced entitlements for natural resource access - which also respond to the expressed desires of the A'Vuong community when they reviewed the draft guidelines;
- /4. Provide at least one-cycle of grant applications and award using a nominal budget to test the delivery and monitoring mechanisms for measures that would typically be supported by revenue sharing grants, as set out in the guidelines, and
- /5. Prepare an article-by-article review of the guidelines, make amendments based on the pilot and provide recommendations on finalizing the legal instruments to successfully introduce benefit-sharing mechanisms nationally.

(2) **Stage 2 budget:** building on stage 1 activities this will provide more resources to:

- /1. Test a wider range of grant awards from the revenue sharing account, in perhaps two or more cycles and extend the pilot project timeframe to 24 months;
- /2. Assess in more detail the development effectiveness of benefit sharing measures adopted in the pilot and the linkages to poverty reduction targets;
- /3. Develop a more comprehensive set of capacity building tools based on the pilot as well as relevant international experience to facilitate rapid and smooth startup of benefit sharing on other hydropower projects in Viet Nam;³⁶
- /4. Enable ERAV to draw in regional and international expertise in preparing the legislation and capacity building tools and a scaling-up program;³⁷ and
- /5. Concretely enhance the environment and management components of the A'Vuong hydropower project by virtue of the larger revenue sharing grants.

115. The 2-level budget allows flexibility as it decouples capacity building work from the legislative timetable. The stage 1 activities can thus be completed in a timely manner to inform government decisions on introducing the legal instruments in 2009-2010 timeframe.

116. At the same time a realistic amount of time is provided to thoroughly test the guidelines and prepare the capacity building tools needed to scale-up benefit sharing nationally in a systematic and consistent manner with the stage 2 resources.

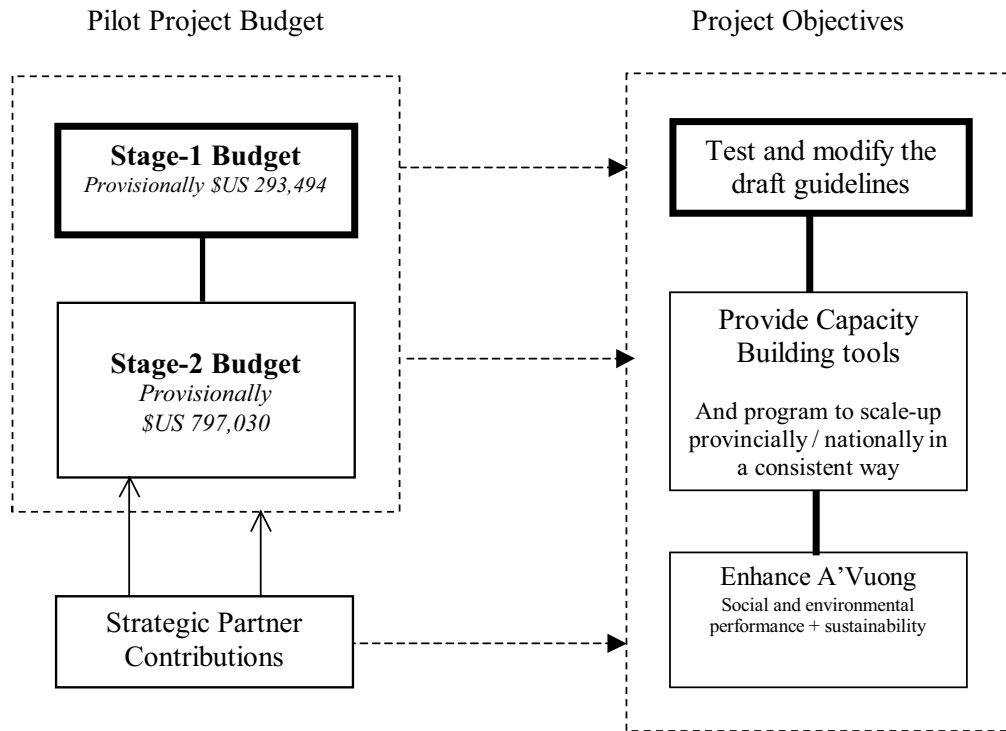
Figure 4.1 below illustrates the 2-level budget concept linked to the objectives.

³⁵ Other instruments include a model grant application form and community newsletters that would be appropriate to share with residents at each important stage of the process.

³⁶ Including operation manuals and training manuals that can be used on other projects in Viet Nam once the legislation is introduced.

³⁷ The core budget does not include resources for regional or international technical support.

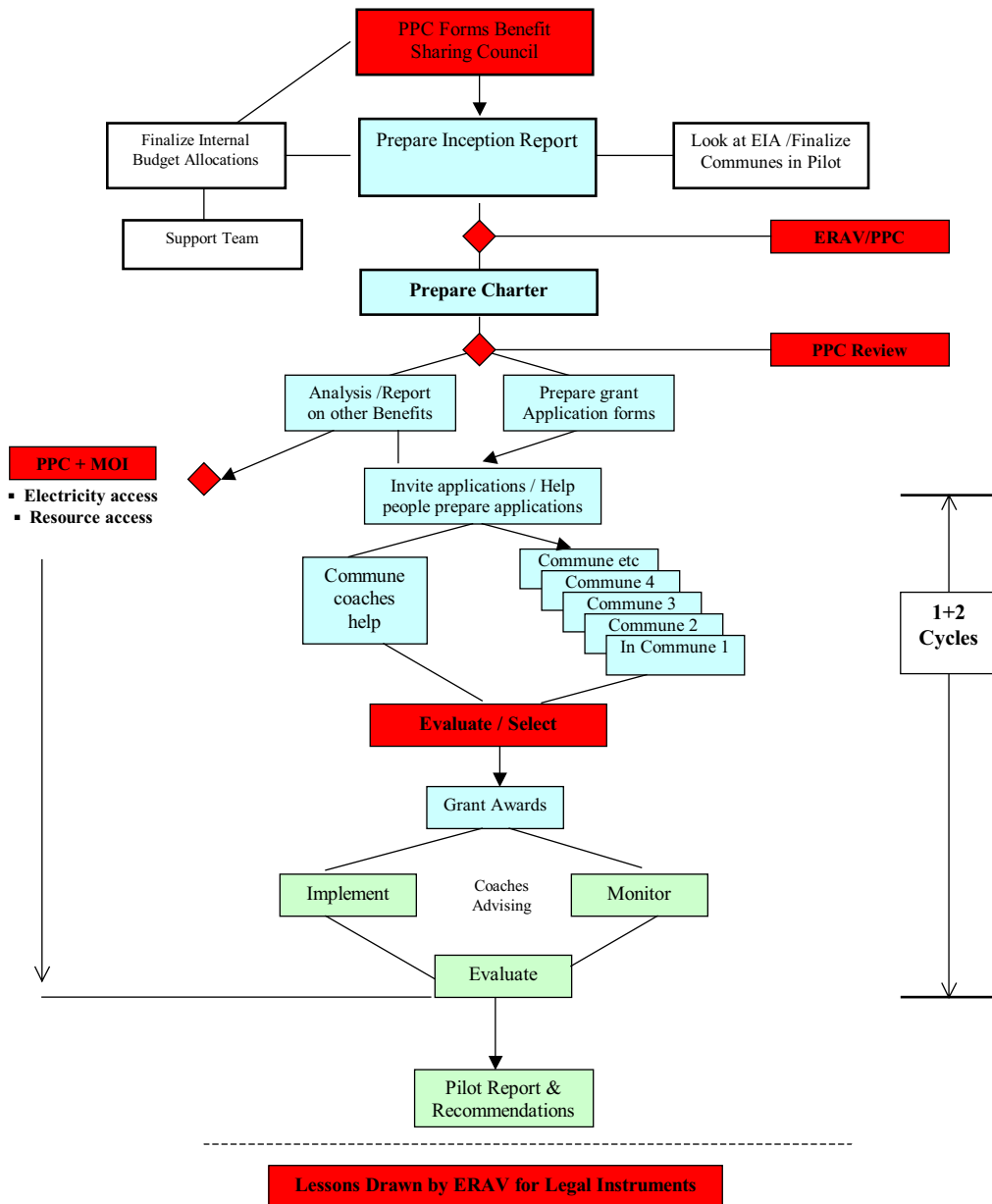
Figure 4.1



117. Figure 4 provides a schematic illustration of the major steps in the pilot project, which was presented to the steering committee and the 3rd national consultation workshop.

118. Further details on the pilot project are provided in Appendix B. The reader should refer to the 8-page summary of the Work Plan, which continues with the discussion started in this section. As mentioned, the full work plan (Appendix B to this Volume) is prepared as a stand-alone report to facilitate discussion with potential donors.

Figure 4.2: Schematic representation of the activities in the pilot



5. RECOMMENDATIONS ON NEXT STEPS

2.1 GENERAL

119. The main recommendations emerging from the TA are embodied in the proposed guidelines and the work plan to field test the guidelines. The important point is that rapid follow-up on the next steps will help to ensure the momentum is maintained and the results of the field test of the guidelines are available in a timely manner inform the preparation of the legal instruments.

120. These next steps that are described in the work plan include the following.

- i. Contacting donors (Stage 1 and 2)
- ii. Finalizing Stage 1 financing arrangements
- iii. Confirming governance arrangements for the pilot
- iv. Appointing the benefit sharing Council
- v. Arranging the project support team
- vi. Confirming arrangements with the strategic partners

	Pre-Project Set Up			Months into Project														
	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
PRE PROJECT SET UP																		
1 Contacting donors (Stage 1 + 2)	█	█	█															
2 Finalizing Stage 1 financing contributions		█	█															
3 Confirming governance arrangements			█															
4 Appointing the Benefit Sharing Council				█														
5 Arranging the Support Team					█	█												
6 Confirming Strategic Partner Arrangement						█	█											

121. In addition ERAV will be assigning internal responsibility to explore financing for the pilot project.

4.3 OTHER RECOMMENDATIONS

122. The following recommendations concern other steps that may appropriate to promote the smooth introduction of benefit sharing mechanisms in Viet Nam. Some of these activities should be undertaken in parallel with implementation of the pilot project.

Recommendation 1: Preparation of the tariff impact study

ERAV should undertake an assessment of the impact of different levels of revenue sharing on retail tariffs and evaluate the most appropriate mechanisms for remitting funds into the central reserve account to reflect revenue sharing in the power market rules that are currently being formulated. This may be considered:

- /1. Using consultants already involved in power market design studies;
- /2. Involving ERAV's tariff department;
- /3. Comparing with benefit sharing levels and tariff systems in other countries, like India and China.

-
- /4. Considering the combined effect of revenue sharing, the existing water resource utilization fees, and the expected environment taxes that may be levied on hydropower projects in the new Environment Law planned for 2008;
 - /5. Taking into account competitiveness of hydropower relative to generation and based on domestic fossil fuels and imported fossil fuels.

ERAV currently has a number of international consultants to assist in this activity.

Why is this important?

- There are different views about what level of revenue sharing is appropriate in the Vietnamese context (e.g. expressed as an equivalent percentage of the gross generation, as reflected in the formula in Article 24 of the guidelines) and affordability in the Vietnamese power system context.
- Higher Government authorities will clearly want to address this question when proposals for introducing revenue-sharing are advanced for consideration;
- There is still a lot of confusion about the difference between profit-sharing and revenue-sharing that needs to be eliminated, effectively to show that revenue-sharing costs are reflected in the tariff and need to be a pass-through for hydropower entities.
- Presently government has policies in place on retail tariff levels, which will remain in effect for 2009. Once the competitive generation markets start a new tariff structure is required. Revenue-sharing need to be clearly understood and factored into any guidance on the retail tariff structure, recognizing that in the longer term retail tariffs will be competitive.

Recommendation 2: Enhance the dissemination of information on benefit sharing

ERAV should take steps to ensure that information on benefit sharing is disseminated to the key parties and available upon request. This is important to maintain support and momentum for revenue-sharing policies in the country and also to ensure there is informed discussion. As part of this, ERAV should establish an internet web-page to provide information on benefit sharing in Vietnamese and English. The material to put on the website initially may include:

- /1. Information on this TA including the three volumes of the final report that can be downloaded in PDF form;
- /2. A copy of the PowerPoint workshop presentations that can be downloaded in PDF form;
- /3. A copy of the work plan for the pilot project;
- /4. Other materials that ERAV considers relevant; and
- /5. Once the pilot program is initiated, information on the status of the pilot.

At the moment ERAV does not have its own web page, but it is understood this can be established under the MOIT website. As part of its information disclosure requirements, ADB will also be making the main TA documents on its website. At minimal, ERAV can establish a Web link to the ADB posting of the TA documents.

Why is this important?

- To provide strategic partners and donors with rapid access to information on the benefit sharing pilot project and financing requirements - thereby potentially improve ability to mobilize financing for the pilot project activities.
- To allow other countries to learn from the progress being made to date in policy development in Vietnam on benefit sharing and next steps.
- To allow public and private sector enterprises involved in promotion of hydropower both in Vietnam and internationally to have information on policy discussions in Viet Nam. This improves the understanding of benefit sharing as a tool for reducing the risk exposures on hydropower and potentially assisting in the mobilization of financing, and
- As discussed in the TA documents many ODA agencies, OECD ECAs and private international financial institutions involved in project lending increasingly emphasize investment in sustainable hydropower development.

Recommendation 3: Address institutional capacity within the ERAV for the national rollout of benefit sharing

Once the regulations on benefit sharing come into effect, benefit sharing mechanisms have to be implemented in all provinces simultaneously and on many hydropower projects (i.e. perhaps over 30 large hydropower projects over 30 Mw and a considerable number of small hydropower projects).

While ERAV staff can handle supervision of the pilot project and the subsequent preparation of the legal instruments within current staffing levels, the staff time, resources and capacity to handle the national roll-out of the benefit sharing program need to be reviewed and arrangements put in place accordingly. This in relation to:

- /1. Tasks and duties required to operate central reserve fund;
- /2. Coordination of the national program to rollout benefit sharing in all provinces on existing and new projects, in a consistent way;
- /3. Ongoing monitoring of the transfer of funds and the application of the revenue-sharing formula;
- /4. Monitoring of the implementation of the recommendations as regards to access to electricity and any tariff measures for rural areas are applicable;
- /5. Capacity development offered to the provinces either through provincial departments (DOITs) or otherwise.

ERAV has a mandate to provide economic regulation as well as aspects of social and public safety regulation. As part of the economic regulation role ERAV is logically placed to coordinate the national rollout of the program. However, Provincial PPCs would be responsible for how the revenue-sharing funds are managed and spent. Therefore, apart from oversight to safeguard the reputational risk for the power sector - if problems were to arise with provincial level implementation of revenue-sharing - it is necessary to clearly define the limits of ERAV's responsibility in practice.

Why is this important?

- To ensure a consistent rollout of the national program for the benefit sharing across all provinces

-
- To ensure there are no distortions to the competitive generation market due to provinces adopting different interpretations of the regulation.
 - To maximize the potential gain of revenue-sharing not only as a tool for sustainable hydropower development but also for other factors such as to enhance the mobilization of finance and resources for hydropower.
 - To ensure that ERAV itself does not take on too many tasks that is outside the realm of economic regulation that would detract from other urgent matters.

Recommendation 4: ERAV should consider undertaking a corruption risk assessment for the entire benefit-sharing program

Feedback from the interviews with local communities and with provincial authorities indicates that potential for abuse of power or corruption in revenue-sharing funds (real or perceived) could undermine local confidence in public confidence in the program.

- Stage two activities include provision for integrity pacts and other simple but effective tools to address concern about transparency and accountability in the design of the management of the revenue-sharing funds and the grand award process.
- At that time, ERAV should consider undertaking a corruption risk assessment on the program as a whole

Why is this important?

- Corruption is one of the major threats to the benefits that revenue sharing and benefit sharing will otherwise bring to all stakeholders.
- Low-cost investments in ensuring there is transparency and accountability in matters dealing with revenue-sharing would have hired by you in risk minimization for very limited expenditure,
- New tools exist to consider corruption risk exposures in public-sector programs such as those advanced by Transparency International.

[Appendix A](#)

Guidelines Part A: Draft provisions for a Decree Law

See separate file

Guidelines Part A: Draft provisions for a Decree Law

PRIME MINISTER

SOCIALIST REPUBLIC OF VIETNAM

No. _____

Independence - Freedom - Happiness

Alternatively may be a Government Decree

On establishing long-term benefit sharing arrangements with local communities adversely affected by hydropower projects

THE PRIME MINISTER

Pursuant to the Electricity Law dated December 3rd, 2004

Pursuant to the PMO Decision No. 258/2005/QĐ-TTg on the establishment and stipulation of functions, duties, authorities and organization of the Electricity Regulatory Authority of Vietnam under the Ministry of Industry (and Trade), dated 19th December 2005

Pursuant to the Law on Environmental Protection, 12th December, 2005

Pursuant to the Law on Water Resources, dated 20th May 20, 1998

Upon the proposal of the Minister of Industry and Trade

DECREES

Chapter 1: General Provisions

Article 1: Scope of the regulation

1. This Decree provides for equitable sharing of benefits arising from sustainable development of the nation's hydropower resources.
2. The Decree establishes a long-term revenue sharing arrangement between the main consumers of electricity services in towns, cities and industry and the local communities hosting hydropower projects who are adversely affected by the project in their locality.
3. The Decree regulates:
 - (i) Financing mechanisms for revenue sharing on hydropower projects;
 - (ii) Policies to target people adversely affected by hydropower projects within existing rural electrification budgets and programs;
 - (iii) Policies to grant entitlements to enhance resource access to offset the permanent transformation, loss or reduction of resource access in the project impact zones of hydropower projects, and
 - (iv) Procedures to introduce benefit-sharing mechanisms systematically in the project cycle of hydropower projects, starting with up-front strategic and project planning stages.
4. For hydropower projects supported by official development assistance (ODA), if the benefit sharing requests of donors are different from provisions of this Decree, agencies managing the investment projects must report to the Prime Minister for consideration and decision before concluding the international agreement.

Article 2: Subject of application

1. All existing and new hydropower projects including large multi-purpose dams with a hydropower component ¹ and any grid-connected hydropower project over 30 MW or small hydropower projects with a legal requirement for an environment impact assessment (EIA).
2. All production enterprises (hereafter referred to as hydropower projects) owned or operated by national and foreign organizations and individuals, unless exempted by the State.
3. Hydropower projects not falling within the scope of application of this Decree include (i) micro and mini hydropower units (ii) small hydropower projects with no legal requirement for a project EIA and (iii) all hydropower projects not grid-connected.
4. The Electricity Regulatory Authority of Vietnam shall promulgate separate regulations for hydropower projects above 30 MW installed capacity not grid-connected.

Article 3: Definition of key terms

1. For purposes of this Decree, terms cited below shall have the following meanings.
 - i. **Sustainable development of hydropower projects** means development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs, on the basis of a close and harmonized combination of economic growth, assurance of social advancement and environmental protection.²
 - ii. **Adversely affected communities or people** means communities or people adversely impacted by the hydropower project to varying degrees living in the project impact zone.
 - iii. **Project impact zone** means the geographic extent of the impact zone of a hydropower project based on that used in the EIA for the analysis and prediction of potential adverse environment and social impacts, or an ex-post EIA in the case of an existing project.³
 - iv. **Adverse impacts** means the permanent loss, reduction or transformation of resource access, ecosystem services, cultural or recreational values, or other means of livelihood and health, as well as permanent loss of land or property.
 - v. **Eligible parties** means people, households, community-based organizations, mass organizations and local family-scale enterprises and other such legal entities deemed eligible to apply for revenue sharing grants.⁴
 - vi. **Adverse downstream impacts** means impacts on downstream ecosystem services due to river flow change and regulation, which adversely affect the welfare or livelihoods of traditional water users and people living downstream of the dam and powerhouse.⁵

¹ Multipurpose dams may include all dams that conform to the definition of a large dam provided by the International Commission on Large Dams (ICOLD). This essentially means dams over 15 m in height.

² Definition from Article 3 of the Law on Environmental Protection 52/2005/QH11, 2005

³ Like EIA standards recommended by Viet Nam's National Environment Agency where the identification of a project impact zone is specified as part of the prediction and mitigation of adverse impacts. An ex-post EIA is one conducted after the project commences operation.

⁴ People living or working in the project impact zones who "host" the hydropower project.

⁵ In pre-project conditions, people may have engaged in activities like fishing, recession agriculture, floodplain grazing and foraging.

- vii. **Adverse upstream impacts** means adverse impacts on ecosystem services such as fisheries that people living on the main river stem, or tributaries upstream of the reservoir relied upon for livelihood needs before the project;
- viii. **Ecosystem services** means services derived from healthy natural systems like forests, wetlands and river ecosystems systems that benefit human welfare and provide livelihood support, particularly in rural areas of the country.⁶
- ix. **Environmental degradation** means degradation in the quality and quantity of environmental components that cause adverse impacts on human beings and living organisms.
- x. **Immediate catchment** means the draw down zone of the reservoir and area around the reservoir perimeter where control of soil erosion can reduce reservoir sedimentation and slow or prevent long-term degradation of the generation capacity of hydropower projects.
- xi. **Payments for ecological services** means payments to people who take actions to improve and maintain ecosystem functions and services which contribute to human welfare and biodiversity.
- xii. **Social accountability** means the duty to provide an account or reckoning of actions one is held responsible for, and in this context, an open and transparent process that directly involves beneficiaries in verifying the fairness and effective use of funds.

Article 4: Objectives of benefit sharing on hydropower projects

The State encourages benefit-sharing mechanisms to advance sustainable hydropower development and help balance economic, social and environmental considerations in the nation's hydropower development strategy. General objectives are :

- i. To maximize the broader socio-economic development impacts of hydropower projects for all citizens, in-line with the state electricity development policy provided in Article 4 of the Electricity Act dated 2004;
- ii. To reinforce national efforts to close the income gap between urban and rural populations in a period of accelerated growth and modernization, in-line with government social policy, including priority for the development of national minorities and boosting local development in areas of difficult or extremely difficult socio-economic conditions;⁷
- iii. To improve conditions to access international financing and ODA funds in support of the national hydropower development strategy, where the presence of benefit sharing mechanisms is attractive to donors and other financiers as a means to reduce investment risks;
- iv. To conform to domestic law and help meet Viet Nam's international commitments for sustainable land and water resource management, and
- v. To ensure the protection of state interests, rights and benefits of relevant organizations and individuals and the ecological environment in rural areas.

⁶ Ecosystems services broadly fall into five categories (i) provisioning, such as the production of food, fish, fiber and water (ii) regulating, such as the control of disease vectors, waste decomposition and detoxification and maintaining hydrological functions of ecosystems (iii) supporting, such as nutrient dispersal and cycling for recession agriculture, (iv) cultural, such as spiritual and recreational benefits including eco-tourism; and (v) preserving, which includes guarding against uncertainty through the maintenance of biological diversity.

⁷ Areas where many existing hydropower projects are located and potential new sites are located.

Article 5: General principles of benefit sharing

1. The establishment and application of benefit sharing mechanisms on hydropower projects shall be based on the following principles.

- Ensuring people who permanently give up land or natural resource access for national investments in hydropower are first among the beneficiaries of hydropower projects;
- Ensuring communities hosting hydropower projects in their locality become long-term partners in sustainable management of hydropower assets;
- Ensuring communities receive financial incentive for taking local actions that contribute to sustainable management of the watershed and headwater forests and thereby help maintain performance levels and revenue flows from hydropower assets in the long term;
- Ensuring local communities have access to financial support to take advantage of the new entrepreneurial opportunities created by the hydropower project and reservoir;
- Ensuring financing mechanisms for payment of ecological services are available;
- Ensuring a long-term view is taken on benefit sharing, recognizing that hydropower projects are long-life infrastructure that operate for many human generations and that priorities for balancing economic, social and environmental dimensions will change over time;
- Ensuring investments supported by revenue-sharing funds raise income levels of adversely affected communities to at least average provincial levels, and thereafter meet evolving local development needs of communities hosting the project;⁸
- Ensuring investments made with revenue sharing funds reflect beneficiary preferences and are awarded on a grant-application basis using a bottom-up process;
- Ensuring preparations for long-term benefit sharing start in early stages of planning and project design to help ensure (i) least-cost approaches to benefit sharing, and (ii) identify opportunities to built-in physical flexibility to adjust to the priorities future generations living in the basin see for operation of facilities;⁹
- Ensuring People's Committees adopt clear policies to consider additional entitlements for adversely affected communities to enhance their natural resource access and take advantage of development opportunities created by the project; and
- Ensuring mechanisms for revenue sharing are consistent with competitive power markets and electricity tariff reforms.

⁸ Or a poverty reduction target established by Provincial People's Committees in conjunction with national bodies like the Ethnic Minorities Committee and the affected communities.

⁹ This refers to, for example, incorporating bottom flow outlets in dams to provide flexibility to operate with a wider range of downstream release patterns. This will enable regulators to accommodate findings of scientific environmental flow assessments and establish consensus on re-balancing economic, environment and social factors. International experience shows that flexibility in the operating strategy for the reservoir is important as conditions and development priorities within the basin evolve –given the long economic life of hydropower assets. As discussed in the policy review, this can also include consideration of other steps like installing fish-friendly turbines to reduce fish mortality. This has up-front costs, but can have higher economic return overall in terms of the increased value of fish catch annually and biodiversity conservation values.

Article 6: Forms of benefit sharing encouraged on hydropower projects

1. As part of a comprehensive approach to sustainable hydropower development, the State shall encourage and create enabling conditions for three general forms of benefit sharing; namely:¹⁰

- i. **Equitably sharing of electricity services:** where communities adversely affected by hydropower projects are among the first to receive the benefits of electricity services from the project or reliability of supply, subject to local preference and power safety limitations.
- ii. **Entitlements to enhance resource access:** where communities adversely affected by hydropower projects receive entitlements to enhance their access to natural resources (i) to offset the permanent loss or reduction of resource access from before the project, and (ii) to pursue new opportunities created by the project.
- iii. **Revenue sharing:** where communities living in the project impact zone that permanently host the project are entitled to a share of the direct monetary benefits of hydropower generation, according to a formula and approach defined in regulations.

2. These mutually reinforcing forms of benefit sharing shall be a basis for optimizing the contribution of long-term benefit sharing to poverty reduction and local development and the environment as social dimensions of sustainable hydropower development.

¹⁰ Potentially include reference to the state Constitution that provides the use of market-based mechanisms to develop and manage natural resources, where revenue sharing is a market mechanism.

Chapter 2: Process to introduce benefit sharing on hydropower projects

Article 7: Steps to factor benefit sharing into all stages of the project cycle

1. The State shall encourage and create enabling conditions to systematically introduce benefit sharing in all stages of hydropower development.
2. Procedures shall be introduced by all agencies responsible for leading, or involved in planning, design, and implementation of hydropower projects to:
 - /1. Identify the scope for adjustment in the design features of project facilities that offer a least cost-approach to benefit sharing over the economic life of the hydropower assets;¹¹
 - /2. Give adequate consideration to build-in physical measures that offer flexibility to optimize or rebalance operating strategies of the reservoir for different criteria, with particular regard to water releases regimes for downstream environmental flow provision;¹²
 - /3. Ensure that adversely affected communities are meaningfully engaged in identifying potential benefit sharing measures when long-term plans for environmental and social mitigation measures for the project are finalized;
 - /4. Ensure that timely budget allocations are made to target existing rural electrification funds to adversely affected people;
 - /5. Ensure opportunities to boost local development through enhancing resource access are adequately explored during project preparation and implementation stages.

Article 8: Procedures to adopt during strategic planning and project planning stages

1. Benefit sharing assessments shall be an integral part of strategic studies that form the basis for identification of hydropower projects by competent State authorities, including:¹³
 - /1. hydropower sub-sector development strategies
 - /2. hydropower ranking studies for river basins
 - /3. SEAs, and
 - /4. integrated river basin planning studies
2. Strategic level studies shall include an assessment of the scope for benefit sharing linked to existing study topics, as relevant.¹⁴ Such assessments shall provide an indication of the potential contribution of benefit sharing toward:
 - /1. Socio-economic development and poverty reduction objectives in the basin;
 - /2. Long-term mitigation of the adverse impacts and adapting to the residual environment and social impacts of the project
3. SEAs that look at hydropower development issues shall indicate the geographic extent of the project impact zone of possible projects and provide a preliminary indication of the number of communes and people potentially adversely affected by the project.

¹¹ Possibly indicate the cross reference to relevant articles in the Electricity law.

¹² These flow regimes impact on ecosystem services and dependent rural livelihoods.

¹³ SEAs are provided in the Law on Environment Protection

¹⁴ The study topics for strategic EAs, for example, are given in the Environment Protection Law

4. Hydropower ranking studies that provide economic and financial comparisons of hydropower sites shall incorporate revenue-sharing requirements in financial assessments of projects.

Article 9: Procedures to adopt during project planning and feasibility stages

1. Arrangements for long-term benefit sharing shall be considered concurrently with the project design and feasibility and EIA studies that form the basis for approval of hydropower projects by competent State authorities.

2. Hydropower project EIAs shall incorporate an assessment of benefit sharing provisions identified in Article 6. These assessments shall be linked to existing EIA requirements for the identification and mitigation of adverse impacts of the project during construction and operation phase.¹⁵

3. EIAs for all hydropower projects provides a clear indication of:¹⁶

- /1. The geographic extent of the project impact zone
- /2. The communes, or parts of communes which reside in the project impact zone
- /3. The numbers of households in each commune in the project impact zone
- /4. The nature of the potentially adverse impacts on communities in each area.

4. Hydropower project feasibilities studies shall incorporate benefit-sharing assessments linked to existing study topics in the feasibility study. In relation to the design and operation hydropower facilities, hydropower feasibility studies shall:

- /1. Incorporate the revenue sharing formula set out in Article 24 in the economic and financial appraisal of the project;
- /2. Assess the scope for physical modifications in facilities to build-in operational flexibility over the economic life of the project;¹⁷
- /3. Assess the scope for inclusion of other equipment to reduce adverse impacts on ecosystem functions and services such as fish passage structures, fish-friendly turbines and techniques to control the chemical quality of water releases from dams and power stations;¹⁸
- /4. Consider ways to minimize adverse impacts on flow regulation when evaluating alternative operating strategies for the reservoir, including considerations like the amount of reservoir draw down, maintaining minimum downstream water releases in diversion projects and downstream re-regulation weirs
- /5. Highlight any cost increment in the project capital budget, or increase operating costs alternatives and provide an indication of benefit-cost of introducing such measures.¹⁹

¹⁵ This should not be that difficult. Article 18 of the Law of Environment Protection establishes the contents of EIAs that are form one basis for approval of the project by the competent State agencies. This requires the identification of adverse impacts in the project impacts zone and long-term mitigation plans for both construction and operation phases. Also there are guidelines for EIAs issued by the National Environmental Protection that are relevant, as noted in the policy review.

¹⁶ Such assessments will be sufficient to serve as a starting point for benefit sharing councils to confirm the eligible parties for a revenue sharing, as outlined in Article 29.

¹⁷ Such as the size of valves and bottom flow outlets on dams

¹⁸ Technical measures like auto-venting power turbines to oxygenate water passing through turbines.

¹⁹ And this applies to measures such as what is the incremental cost of incorporating a bottom flow outlet in the dam structure. Or how much power revenue is foregone for introducing a specific environmental flow regime, such as minimum flows and periodic flushing flow releases for critical spawning to improve fish productivity in the river system. What is the balance between the lost hydropower revenue and the increase in fish catch? The considerations will include lowering the total cost of the measures over the project economic life and providing

5. In relation to electricity access in the project impact zone, hydropower feasibility studies shall:
 - /1. Assess the current level of rural electrification and quality of service;
 - /2. Provide specifications and indicative costs to electrify the resettlement areas;
 - /3. For communities with no electricity service, provide an indicative cost of electrification via grid extension and via alternative small-scale isolated generation where grid connection is not to be economically feasible;
 - /4. For communities with electrical service, assess provide an indicative cost for refurbishment of electrical supply equipment to improve levels of service and reliability of supply;
 - /5. Where feasible, provide a breakdown of household access with income levels.

Article 10: Procedures to adopt during detailed design and implementation stages

1. The final design of the project shall incorporate measures in feasibility studies approved by competent authorities that enhance flexibility for operation of the reservoir and minimize adverse impacts on ecosystem services of the project.
2. For committed hydropower projects already at the detailed design stage when this Decree is promulgated, provisions shall be made to:
 - /1. Prepare assessments stipulated in Article 9 as part of the detailed design work and submit these to competent authorities for decision for inclusion in the final design and capital cost;
 - /2. Discuss potential benefit sharing measures for operation phase of the hydropower project in processes guided by Provincial People's Committees to:
 - a. prepare resettlement plans and compensation plans;²⁰
 - b. prepare environment management plans to mitigate adverse environment impacts during the operation stage of projects.
 - c. Prepare other such action plans as required by legislation to meet the environment and water resource protection obligations of hydropower production enterprises.
3. The discussions with people living in the project impact zone in item 2 above shall reflect benefit-sharing principles in Article 5 of this Decree.
4. In planning construction works related to development of hydropower projects, benefit sharing principles shall be reflected to maximize opportunities:
 - /1. for local employment in project or related construction works;
 - /2. for source goods and services locally in ways that contribute to the local economy;
 - /3. In training local people for labor and semi-skilled jobs available once the project is operational, including activities such as clearing and maintenance of transmission rights-of-way, stabilization works and monitoring of project impacts.

flexibility for future changes in operation for future generations to balance economic, social and environment priorities.

²⁰ Benefit sharing measures that fall outside compensation and resettlement provisions in Decree 197

5. Due consideration shall be given by People's Committees at all levels to create employment opportunities for adversely affected people, while avoiding adverse boom and bust cycles when the project construction is completed.

Article 11: Procedures to adopt on existing hydropower projects

1. Benefit sharing councils appointed to existing hydropower projects as set out in Articles 12 and 27 shall be responsible to:

/1. Arrange to review the existing EIA, or complete a supplemental rapid environmental assessment, if needed, to establish.

- a. The geographic extent of the project impact zone
- b. The communes, or parts of communes which reside in the project impact zone
- c. The numbers of households in each commune in the project impact zone
- d. The nature of the potentially adverse impacts on communities in each area.

/2. Arrange for a review of the status of electricity supply and electricity access to households in the project impact zone, in the manner specified in Article 9.

2. The benefit sharing council shall then proceed to prepare the Charter for the revenue-sharing fund in the manner prescribed in Chapter 5.

3. The cost of the reviews and supplemental studies noted in item 1 above, plus legitimate startup costs to put in place revenue-sharing arrangements shall be financed by an initial contribution to the project revenue-sharing fund from one or more sources:²¹

- /1. A reimbursable loan from the Province, reimbursable within a six-month time frame;
- /2. A reimbursable loan from project entity, reimbursable within a six-month time frame;
- /3. An initial allocation from a central reserve fund in a manner prescribed by the Electricity Regulatory Authority of Vietnam, as set out in Articles 12 and 25.

Article 11: Fundamentals of arrangements for benefit sharing during the operation phase of hydropower projects

Fundamental arrangements for benefit sharing include the establishment of revenue-sharing funds for hydropower projects and appointment of a benefit sharing council to manage the fund.

1. The Electricity Regulatory Authority of Vietnam (ERAV) shall establish a central reserve fund to facilitate the smooth startup and operation of revenue-sharing funds for all hydropower projects as provided in Article 25. The reserve fund may be drawn upon assist establishment of revenue sharing arrangements, before remittances to the project-specific funds are regularized.²²

2. Thereafter, the central reserve fund will be used to facilitate remittances into project-specific funds consistent with competitive generation market rules and provisions in this Decree.

²¹ Start-up financing is needed because the hydropower project must start generating revenue before funds can be remitted back to revenue-sharing funds. The procedures may take months and for efficiency reasons remittances to the fund may be semi-annual or annual. Otherwise ERAV can explore the mechanics of more frequent remittances such as on a monthly or bi-monthly basis.

²² The central reserve fund would be managed by ERAV and used for purposes consistent with the smooth introduction of revenue sharing when the competitive power market is introduced. Thereafter it may be maintained to deal with new projects only in a much scaled-down version.

3. Provincial level People's Committees, in collaboration with relevant ministries, ministerial level agencies and Government bodies shall have the responsibility to direct and organize the benefit sharing arrangements on hydropower projects operating within territory under their management, in the manner set out in this Decree.
4. Provincial level People's Committees shall appoint benefit-sharing Councils and complete administrative arrangements to establish revenue-sharing funds on new and existing hydropower projects.
5. All procedures relevant to the management and operation of revenue-sharing funds shall be set out in a Fund Charter, in the manner prescribed in Chapter 5.
6. All disbursements from the fund shall be grant based to ensure (i) a fair and efficient bottom-up process revenue-sharing (ii) activities supported by revenue sharing reflect beneficiary needs (iii) to help ensure community ownership of the fund (iv) the work of the benefit sharing council is streamlined, and (v) avoid creating a large institutional capacity for management of the fund.²³
7. All parties eligible to participate in revenue sharing shall have the right to submit applications in the manner prescribed in the Charter established for the fund.
8. Benefit sharing councils shall report to Provincial Level People's Committees annually on the status of revenue-sharing and needs relating to non-revenue forms of benefit sharing
9. Special consideration will be given to the evaluation of the impacts of benefit sharing on provincial poverty reduction targets in the project impact zone.
10. The delivery of benefits through state and provincial programs and mass organizations shall be monitored by the benefit sharing council on behalf of the Provincial People's Committee.
11. Adequate provisions shall be made for transparency and social accountability to safeguard against the abuse of power, or any form of corruption that would undermine the objectives of benefit sharing and confidence of the local people in benefit sharing.

Article 13: The role of river basin organizations in benefit sharing

1. The State encourages river basin organizations (RBOs) to offer expertise and advice to People's Committees and benefit sharing councils on issues that include:
 - /1. Reflecting benefit sharing, related ecosystem management concerns and payments for ecological services in river basin development and management plans that incorporate hydropower projects;
 - /2. Resolving questions of the geographic overlap of project impact zones for cascade hydropower projects in the same basin;
 - /3. Distinguishing between adverse effects of hydropower projects that are project-specific, and the cumulative impacts of all hydropower projects in the basin;
 - /4. Evaluating how other benefits associated with hydropower projects not cited in this Decree, like downstream flood protection and management aspects, are considered;

²³ This would mean, for example, if people want credit facilities then an appropriate mass organization like the farmers' union or women's' union would apply for the grant and administer the credit program. The same applies to payments for ecosystem services.

- /5. Dealing with special issues that may arise concerning multipurpose projects; and
 - /6. Dealing with special benefit sharing arrangements for hydropower projects on inter-provincial rivers, or projects involving inter-basin water transfers.
2. A representative of the RBO in the river basin the project is located shall be a member of the benefit sharing council, as provided in Article 27.

Chapter 3: Equitable sharing of electricity access and services

The State encourages steps to ensure the targeting of communities adversely affected by hydropower projects within Provincial and State rural electrification programs to improve equitable access to electricity for their daily activities and production needs.²⁴

Article 14: Costs of electrification of resettlement communities shall be included in capital budget of hydropower projects

1. Capital budgets for all public and private sector hydropower projects shall include:²⁵
 - /1. Electrification of all resettled households in areas officially designated for project resettlement, and
 - /2. Connection, refurbishment and strengthening of existing electrical supply in the resettlement host community, based on threshold guidelines issued by ERAV.²⁶

Article 15: Targeting communities living in the project impact zone with rural electrification funds

1. Within existing provincial and national programs for rural electrification, priority will be given to extend electricity supply lines or improve the reliability of existing supply to communities living in the project impact zone, provided that:
 - /1. The average poverty rate is below the provincial average poverty rates;
 - /2. Communities indicate a preference for electrification support.
2. Unless the benefit sharing council recommends otherwise, the following order of priority will be used to extend or improve electricity supply in the project impact zone:
 - /1. Households in the resettlement host community (not covered by Article 14, after applying the Electricity Regulatory Authority of Vietnam's guidelines noted;
 - /2. Communities living along the perimeter of the newly created reservoir;
 - /3. Communities living along the main stem of the river and tributaries in the upstream and downstream areas of the project impact zone;
 - /4. The remaining areas of the project impact zone.
3. For new hydropower projects, the assessment of the status of electricity supply in the project impact zone shall be prepared in accordance with Article 9. For existing projects, such assessments will be prepared in accordance with Article 11.
4. Benefit sharing council shall reflect assessments of rural electrification needs in the recommendations to Peoples Committees as part of their functions and duties described in Chapter 5.

²⁴ Consistent with Article 60 of the Electricity Law to facilitate people living in rural, ethnic minority areas, and areas with quite difficult socio-economic conditions to use electricity for their daily activities and production

²⁵ At present EVN has a policy to electrify resettled households, as shown in the rapid appraisals. This stipulation is provided to ensure IPPs adopt the same practices in the competitive generation market.

²⁶ The intention is to electrify also the resettlement host community. This may be practical when the host community is small. In situations where the host community is larger, provision needs to be made to cover these costs not from the project budget but by targeting rural electrification program budgets. ERAV needs to specify thresholds.

Article 16: Off-grid supply in areas uneconomical to connect to the grid

1. Assessments shall be made of the potential and indicative cost of providing households with electricity supply from small-scale renewable energy sources and on-spot sources for low-density, remote or scattered villages areas not economical to connect to the grid.
2. Such assessments shall be prepared in accordance with Article 9 in the case of new hydropower projects, and Article 11 in the case of existing hydropower projects.
3. Additional measures to boost investment in off-grid supply consistent with Article 61 of the Electricity Law 2004 will be considered for these areas, including:
 - /1. Targeting of people adversely affected by hydropower projects within provincial or national rural electrification targets for off-grid supply
 - /2. Promotion of investment in off-grid supply in discussions with donors about cooperation and support for new and renewable energy off-grid supply;
 - /3. Investment capital, loan interest and preferential tax support for individuals and organizations seeking to invest in alternative electrical supply in these locales;
 - /4. Inclusion of a budget for off-grid supply in the fund Charter subject to local preferences.
4. Benefit sharing councils will review assessments of off-grid supply and make recommendations to Peoples Committees as part of their normal functions and duties described in Chapter 5.

Article 17: Additional measures to enhance electricity access for the poorest households

1. Revenue-sharing grants that may be considered for the poorest households living in the project impact zone include:
 - /1. One-time support for wiring connection and other accessories costs;
 - /2. Technical advice on energy efficiency and safety of use;
 - /3. One-time support for purchase of energy efficient lighting devices.
 - /4. Cost-sharing of electricity use for a transitional period of up to five years, subject to limitations;²⁷
2. Such support shall be subject to local preferences. Cut-off levels for support to the poorest groups will be established based on recommendations of the benefit sharing council.

Article 18 Organization for implementation of equitable electricity access at state and provincial levels

1. The Ministry of Industry and Trade shall assume primary responsibility and coordinate with Provincial-level People's Committees on priorities for targeting adversely affected communities within existing rural electrification budgets.
2. The Ministry of Industry and Trade as part of its normal functions shall also ensure:
 - /1. Adequate evaluation of rural electrification investment in the project impact zone are incorporated in the main hydropower project feasibility and detailed design studies;

²⁷ This may be deleted and instead covered by the requirement for ERAV to recommend electricity tariffs in rural areas, including the question of whether communities adversely impacted by hydropower projects will be allowed some time-bounded reduction in tariffs – whether income tested or not.

- /2. Costs and impacts of these investments are clearly identified and advanced to competent authorities for decision;
 - /3. Evaluation by the Electricity Regulatory Authority of Vietnam of the scope for preferential consumer tariff structures for adversely affected communities and the time period they should apply.
 - /4. Consistency of these provisions with the Electricity Law and other applicable law.
3. Provincial-level People’s Committees shall take account of these factors in provincial budget processes for rural electrification and ensure steps to verify preferences of adversely affected people as regard to electrification and improve service levels through benefit Sharing councils.
 4. Project Management Boards for hydropower projects shall take account of the results of surveys of electricity access and levels of services during project preparation activities and reflect provisions for electrification of resettlement areas in project capital budgets.

Chapter 4: Entitlements to enhance resource access and livelihood opportunity

The State shall encourage the award of entitlements and rights to people adversely affected by hydropower projects (i) to enhance their access to natural resources to help offset effects of permanent loss, reduction or transformation of resource access they enjoyed before the project, and (ii) to enable people living in the project impact zone take advantage of new local development opportunities created by the project.

Article 19: Types of measures for enhancing resource access and livelihood opportunity

1. Provincial-level People's Committees have primary responsibility to ensure opportunities for extending non-monetary forms of benefit sharing are considered for hydropower projects in their jurisdiction.
2. Measures shall include but not be limited to extending enhanced entitlements, permissions or rights as necessary to:
 - /1. intensify or extend agro-forestry;
 - /2. improve forest access for gathering forest products and community managed forestry;
 - /3. establish revenue sharing arrangements between local communities and State Forest Enterprises, as embodied in applicable forest sector laws;²⁸
 - /4. establish reservoir fisheries programs and related rights such as patrolling and market access;
 - /5. establish aquaculture activities in areas where fish catch in the river is permanently lost or reduce;
 - /6. extend vocational training for job changes for income generation and income diversification;
 - /7. facilitate start-up of local enterprises and businesses based on eco-tourism and other opportunities created with the formation of reservoir and new wetland areas;
 - /8. approvals consistent with other laws to establish local community radio services for the project impact area to discuss common experiences with benefit sharing;²⁹
 - /9. defer or reduce locally set fees on enterprises to establish alternative forms of income generation;
 - /10. enhance local participation and capacity in ecosystem management;
 - /11. enable payments for ecological services; and
 - /12. undertake other activities that materially assist communities and households in the project impact zone to improve their health, culture, and quality of life.

Article 20: Procedures to identify local preferences for additional entitlements

For new hydropower projects, preference for additional entitlements, permissions or rights shall be explored in discussions with local communities during the EIA and resettlement and compensation processes.

²⁸ For example PMO Decision 187 (1999), On Renovation of the Organization and Management System of State Forest Enterprises, Article 3 calling for entitlements and measures to "...ensure a harmonious benefit-sharing relationship between laborers, the State and the State Forest Enterprises (SFEs) on one hand, and on the other, between SFEs and localities" Benefit sharing means revenue sharing in that case from the proceeds of timber and forest product sales sustainably harvested.

²⁹ Like in the Bumbuna project in Sierra Leone. Revenue sharing funds can pay for the community radio service that enabled people to exchange information and ideas on the benefit sharing and management of the fund.

1. For existing hydropower projects, local preference shall be explored in discussions with communities during the supplemental studies noted in Article 11.
2. During implementation of revenue sharing grants discussed in Chapter 5, the requirements for permits or other authorizations will be clearly indicated to the concerned local authorities by benefit sharing councils.
3. Special attention shall be given to ensure women and youth actively participate in training activities and decisions regarding local resource access, allocation and management activities.

Article 21: Provincial level support for granting additional entitlements to enhance resource access and livelihood opportunity

1. Provincial-level People's Committees shall have the responsibility to establish policies for granting new or additional entitlements and for ensuring that district and commune-level People's Committees:

- /1. expedite the award of entitlements, permits or approvals for activities funded by revenue sharing grants;
- /2. apply these policies on hydropower projects in their jurisdiction more generally.

2. Benefit sharing councils shall monitor progress extend entitlements, permissions or rights and report on the effectiveness of such measures in annual reports to the Peoples' Committees and reports to Residents, as described in Article 28.³⁰

³⁰ This includes reporting on significant features of the gap between the interests of the project affected communities and the kind and quality of support extended by local authorities.

Chapter 5: Revenue sharing

Section 1: Measures

Article 22: Types of measures supported by revenue sharing funds

1. Measures supported by revenue sharing funds for hydropower projects shall include, but not be limited to:

- /1. Grant contributions as incremental funding for local development assistance programs delivered through provincial or national target programs, such as:
 - a. Construction of local-scale infrastructure at village and commune levels (e.g. local roads, clinics, schools, irrigation systems, water supply and sanitation systems, market areas, community centers, etc.),
 - b. Construction of infrastructure at commune-cluster level;
 - c. Provision of agricultural / forestry extension services;
 - d. Support for headwater forest management with community forestry methods; and
 - e. Training of commune cadres in local infrastructure development or service provision.
- /2. Grant contributions to community-based activities funded in part by a contribution in kind from local communities; such as:
 - a. Other national or provincial programs that require local contribution of labor;
 - b. Youth and women's programs;
 - c. Community centers;
 - d. Community radio and media services;
 - e. Local development initiatives of mass organizations;
 - f. Cultural activities at the community level.
- /3. Grant contributions to operate loan and credit facilities including those of a revolving nature, such as:³¹
 - a. Micro-credit schemes;
 - b. Loan programs;
 - c. Entrepreneur schemes to diversify local income generation.
- /4. Grant contributions to investment in expanding access to electrical services, when there is sufficient demand from eligible parties, such as:
 - a. Support to the poorest groups in the project impact zone for one-time house electrical connection;
 - b. support for power safety awareness training and in the efficient use of electricity;
 - c. support for procurement of energy efficient lighting to help reduce electricity bills;
 - d. Support to advance use of isolated on-spot electrical generation in areas where it is uneconomical for grid-connected supply.

³¹ The grant to support credit facilities can be provided to a mass organization such as the local farmers Union or women's Union to run the credit program. The revolving funds are typically more complex to manage than simple grant awards but are common in many developing countries and can be managed with appropriate transparency and social accountability provisions. As mentioned in Article 12 grants have multiple advantages.

- /5. Grant contributions to other local investments people request, which Provincial People's Committee's deem appropriate for local socio-economic and cultural advancement, basing their decisions on advice of the benefit sharing council.
2. Measures supported by revenue sharing grants shall be consistent with State and provincial strategies to reduce poverty rates in the project impact zone.
3. Suitable targets to measure success in poverty reduction shall be set Provincial People's Committees, taking into account:
 - /1. poverty rates of communities in the area compared to national / provincial poverty rates
 - /2. poverty reduction targets for rural area
 - /3. recommendations of the benefit sharing councils and other concerned departments
4. All investments supported by revenue sharing shall be consistent with local socio-economic development plans, cultural development plans, and land use planning and plans already approved by competent authorities.

Section 2: Financing mechanisms for revenue sharing

Article 23: Mechanisms for payments into revenue-sharing funds

1. A fixed percentage of gross annual revenue generated by hydropower projects specified in Article 2 of this Decree shall be remitted to a central reserve fund administered by the Electricity Regulatory Authority of Vietnam.³²
2. Remittances shall be made to the central reserve fund at least on an annual basis, or a schedule specified by the Electricity Regulatory Authority of Vietnam in supplemental regulation.³³
3. Remittances from the central reserve fund will be paid directly into the project-specific revenue sharing account at least on an annual basis, or a schedule specified by the Electricity Regulatory Authority of Vietnam in supplemental regulation. All such payments shall be in Vietnamese currency.

Article 24: Formula for calculating payments into revenue-sharing funds

1. Remittances to project revenue-sharing fund shall be based on the previous years equivalent gross generation (GWh) from the project, according to the following formula:

³² Further discussions will be held with ERAV on remittance best suited to the competitive power market rules that come into the effect in 2009. These rules are currently under development. Two main options are:

Option 1: the Market Operator authorizes/instruct the single buyer to make payment directly into the project specific revenue sharing fund or central reserve account when market transactions are settled.

Option 2: Payments are imbedded in the power purchase agreements (PPA) and the single buyer advances the funds to hydropower entity, which then remits the money to the revenue-sharing fund.

There are variations. The main consideration is the transaction needs to ensure revenue sharing is captured in the bulk tariff. One advantage of remitting to the central reserve fund is the ability to arrange smooth start up.

³³ This could be semi-annual or event monthly. Depends on what is practical and feasible under the new competitive market system.

Hydropower plant annual output	X	Unit price	X	Fixed Percentage Rate	=	Annual contribution to the revenue-sharing fund
Gross (GWh)		(VND/KWh)		(%)		VND
In the previous year metered at the point of connection to the grid		Reflecting tariff structures recommended by ERAV		<i>(2 percent is recommended- similar to the water resource utilization fee)</i>		Transferred to the fund as part of market settlement process in the competitive market

Where:

- i. Metered energy (GWh) is determined from the metering data collected in the power market in accordance with that market's rules and codes;
- ii. The unit price shall be established annually by the Ministry of Industry and Trade in consultation with the Ministry of Natural Resources and the Environment and other concerned agencies based upon the recommendation of the Electricity Regulatory Authority of Viet Nam;³⁴
- iii. The percentage rate shall initially be 2%. This rate may be varied by MOIT from time-to-time, provided that any changes in the rate are reflected in the prices charged by the hydropower plants concerned and in retail tariffs. Any power purchase agreements entered into by the hydropower plants concerned shall make appropriate provision for such adjustments to prices
- iv. The remittance for revenue sharing will fluctuate slightly between wet and dry years.

Article 25: Establishment of the central reserve fund

1. The Electricity Regulatory Authority shall establish a central reserve fund to assist the smooth startup and operation of revenue-sharing funds on new and existing hydropower projects. The central reserve fund shall be established with a Charter that specifies its functions.
2. The functions of the central reserve fund shall include, but not be limited to:³⁵
 - /1. Providing startup funds to put benefit sharing arrangements in place in the first year new hydropower projects operate, before remittances to the project revenue-sharing fund are regularized;
 - /2. Providing startup funds to put benefit sharing arrangements in place on existing hydropower projects before remittances to the project revenue-sharing fund are regularized;
 - /3. Thereafter facilitating transfer of revenue into the project-specific revenue sharing funds in accordance with Article 24;

³⁴ The combined effects of the financial obligations of hydropower projects for benefit sharing, environment protection, and water resource protection on electricity tariffs is an important consideration. Based on experience in developing countries the combined impact should perhaps be no more than 10 percent of the bulk generation rate.

³⁵ The central reserve fund would be managed by the electricity regulator, and used for purposes consistent with the smooth introduction of revenue sharing initially when the competitive power market is introduced. Thereafter it may be maintained to deal with new projects only in a much scaled-down version.

- /4. Covering the management and administration costs of providing these facilities.
3. All transactions for injection of startup funds are recoverable against revenues due to be paid into project-specific funds, according to the formula in Article 24.
4. The Ministry of Industry and Trade and the Electricity Regulatory Authority of Vietnam shall have joint responsibility to ensure means of payment into the central reserve fund and project-specific revenue sharing funds are consistent with power market rules and other applicable law.

Article 26: Establishment of project-specific revenue sharing funds

1. Provincial-level Peoples' Committees of centrally governed provinces or municipalities shall have the responsibility to appoint benefit-sharing councils and complete administrative arrangements to establish revenue-sharing funds:

- /1. on new hydropower projects by the time of official commissioning of the project, and
- /2. on existing projects within three months of the effectiveness of this Decree.

2. Provincial-level Peoples' Committees shall subsequently instruct and guide the operation of the benefit sharing council in the award, supervision, monitoring and assessment of grants from the fund.

Article 27: Functions, duties and composition of the benefit sharing council

1. Functions of the benefit sharing council include all those activities for preparation of a fund charter and management of revenue sharing fund consistent with the provisions of this Decree.

2. Duties of the benefit sharing council shall include, but not be limited to the following:

- /1. Finalizing the fund Charter in consultation with the eligible parties reflecting the contents of the Charter identified in Article 28.
- /2. Recommending future updates to the fund Charter on a five-year cycle;
- /3. Identifying allocations between different categories of support for each different community group on an annual basis;
- /4. Operating the grant system including arranging technical support for applicants to prepare standardized and simplified grant application forms paid by the fund;
- /5. Administering the award of grants to successful applicants on the basis of the principles and applying agreed criteria for evaluation and selection of successful applicants set out in the fund Charter;
- /6. Facilitating the transfer of payments from the fund to national or provincial programs or mass organizations involved in delivery of benefit sharing measures;
- /7. Creating conditions for transparency and social accountability in all aspects of fund operation and for target beneficiaries to have full confidence in the process;
- /8. Advising People's Committees, departments and Ministries on non-monetary forms of benefit sharing as set out in Chapters 3 and 4 of this Decree;
- /9. Preparing or supervising the preparation of an annual report for people living in the project impact zone (Report to Citizens);
- /10. Ensuring mechanisms the give people an opportunity to exchange views and experiences and to build a culture of community ownership around benefit sharing programs associated

with the hydropower project they host, including establishment of community radio service.

- /11. Preparing or directing the preparation of annual reports on the operation of the fund for consideration by the Provincial-level Peoples Committee including recommendations for further improvement in the operation or effectiveness of the fund.
 - /12. Assuming responsibility to follow-up to recommendations for change or further improvement in the operation or effectiveness of the fund accepted by the Provincial-level Peoples Committee.
3. The benefit sharing council shall have a People's Committee leader as its chairman and the following members:
- /1. A finance agency's representative as vice-chairman;
 - /2. A representative of the Minority Department under the provincial Peoples Committee;
 - /3. An industry and a natural resources and environment agency's representative as members;
 - /4. A representative of the project management board of the hydropower project;
 - /5. A representative of each commune-level People's Committee in the project impact area where eligible parties live or work;
 - /6. One or two representatives of households from the eligible communes;
 - /7. A representative of the river basin organization or committee established in the basin the project is located;
 - /8. Representatives of provincial departments as deemed appropriate by the Provincial People's Committee chairman.
4. The Electricity Regulatory Authority of Vietnam and MoNRE representatives will be appointed to the benefit sharing council for projects on inter-provincial rivers and other projects where the Electricity Regulatory Authority of Vietnam and MoNRE wish to be directly represented on the council.
5. The fund Charter shall specify terms and conditions including length of service for individual positions on the benefit sharing council.
6. Members can be dismissed for abuse of power or abuse of funds.

Article 28: Preparation and contents of the fund Charter and annual reports

1. Basing themselves on local realities, benefit sharing councils shall prepare a provisional fund Charter to set out the principles and operation practices of the revenue-sharing fund, as well as other forms of benefit sharing
2. Provisional fund Charters will be prepared in open consultation with communities living in the project impact zone.
3. For existing hydropower projects, councils shall prepare or direct the reviews and assessments indicated in Article 11 before initiating consultations on the provisional fund Charter.
4. Fund Charters shall have sections that address the following topics:
 - /1. goals of revenue-sharing
 - /2. principles for operating the revenue-sharing fund

- /3. specification of the project impact zone for the purposes of defining eligible parties³⁶ based on the
 - /4. specification of eligible parties
 - /5. proportional allocations of available funds to different groups of eligible parties in the project impact zone³⁷
 - /6. grant application procedures and technical advice to be given to eligible parties in preparing grant applications
 - /7. criteria for selecting and awarding grants
 - /8. authorities to form working groups for any aspect of administration of the grant program
 - /9. transparency, monitoring and social accountability and anti-corruption procedures
 - /10. membership of the benefit sharing council
 - /11. Information sharing and communication with residents
 - /12. other provisions that emerge in discussions with eligible parties.
5. The annual report to the Provincial-level Peoples Committee shall include but not be limited to:
- /1. statistics, monitoring and evaluation of the previous year's operation of the fund;
 - /2. recommendations to adjust the allocation of available grant funds to different category of grants, based on demand;
 - /3. an assessment of the contribution of the benefit sharing activities to (i) poverty reduction and (ii) local development in the project impact zone;
 - /4. a listing of all grants awarded and outstanding;
 - /5. a listing of grants awarded that have future implications for provincial budgets, as agreed to with concerned departments;
 - /6. the results of a survey of local communities attitudes toward the operation and management of the fund and opportunities for improvement.
 - /7. A description of the steps taken and avoid abuse of power and anti-corruption
 - /8. Other sections and normally required by applicable law
6. The annual report to the Citizens shall be in the form and have the content as set out in the fund Charter.

Section 3: Principles and procedures for allocating revenue sharing grants

Article 29: Determination of eligible parties to apply for revenue sharing grants

1. The determination eligible parties shall be based two main factors (i) the geographic extent of the project impact zone as set out in the fund Charter and (2) the status of the person or legal entity.

³⁶ Based on the project impact zone as defined in the EIA, and the compensation and resettlement plans, with any modifications recommended by the benefit sharing council after consultations. Normally this will include a listing of the communes or parts of communes deemed eligible, parties living therein.

³⁷ Reflecting Article 30 where the proportional of revenue-sharing fund's to be allocated to the different groups are established, such as between upstream and downstream groups, the resettlement community, communes along the perimeter of the reservoir, etc.

2. The persons or legal entities eligible to apply for revenue sharing grants shall include all households, community-based organizations, voluntary organizations, unions and mass organizations acting on behalf of different segments of the community, and family-scale local enterprises permanently living or located in communes in the project impact zone.
3. Persons or legal entities living or located in the project impact zone excluded from participating in revenue sharing shall include persons not citizens of Viet Nam, foreign-owned enterprises or large-scale enterprises as defined in fund Charters.³⁸
4. This geographic extent of the project impact zone and the communes thereby encompassed shall include consideration of:
 - /1. Communes that border upstream stretches of the main river above the reservoir;³⁹
 - /2. Communes that border of the reservoir and live in the immediate watershed of the reservoir;
 - /3. Communes where the main project facilities are located, including the dam powerhouse, switchyard and staff housing and office facilities;
 - /4. The resettlement community including the host community;
 - /5. Communes bordering the river downstream of the dam in the dewatered section between the dam and powerhouse;
 - /6. Communes immediately downstream of the powerhouse.
5. Benefit sharing councils shall clarify all eligible communes and types of parties in the provisional fund Charter, based on discussion with local communities.
6. Benefit sharing councils shall seek approval of the designation of eligible parties as part of the Provincial People's Committee approval of the provisional fund Charter.
7. Benefit sharing councils shall seek approval from the Chairman of the Provincial People's Committee before any changes in eligible parties, as reflected in the fund Charter, or any rules for designation of eligible parties embodied in the fund Charter.

Article 30: Principles for allocating revenue sharing funds among communes in different areas of the project impact zone.

1. The proportional allocation of the funds to enable grants to eligible parties living in different communes shall be clearly set out in the fund Charter.
2. The fixed percentage allocation of can be altered only once every five years after public consultation the recommendation of the benefit sharing council, subject to approval of People's Committee Chairman.
3. In any event, the collective allocation to grants that exclusively support displaced households and resettlement host communities shall not normally exceed 30 percent of total revenue sharing funds available each year, subject to the following:

³⁸ The intention is that small enterprises would be eligible, but larger enterprises would not.

³⁹ The principal is the allocation percentage to the different affected groups or communes (e.g. the resettlement community, upstream or downstream communities) will be fixed, but within that, annual allocations for the different grant categories can be adjusted on an annual basis by the benefit sharing council in consultation with the eligible people in each area an a no-objection from the chairman of the PPC. You could delete the no-objection requirement if the province feels it is not necessary.

- /1. The Ministry of Industry and Trade may consider increasing the percentage above on the request of the Provincial Peoples' Committee concerned;
 - /2. Normally such alterations would only be considered in hydropower projects where an unusually large number of people are resettled;
 - /3. This will be measured by the ratio of the people resettled per GWh or MW installed capacity compared to averages for grid-connected hydropower projects in Viet Nam;
 - /4. The Electricity Regulatory Authority of Vietnam will advise the Ministry of Industry and Trade on these ratios.
4. If all revenue-sharing funds allocated to a particular area (or commune) are not disbursed in a particular year, these funds will be carried over to the next year and reserved for use by eligible parties in that area. Such carryovers shall not be factored into the annual allocation of fresh funds coming into the revenue fund.

Article 31: Administration of grants from the revenue sharing fund

1. Administration of grants will be handled by the benefit sharing council under the procedures set out in the fund Charter and any relevant guidelines issued by the Provincial-Level Peoples Committee or the Ministry of Industry and Trade concerning the sources of funds and financing mechanism.
2. The fund administration and management approach includes the following elements:
 - /1. The amount allocated for different grant categories in Article 22 will be decided on an annual basis by the benefit sharing council in consultation with eligible people in each commune;
 - /2. Before this allocation becomes effective, a no-objection will be issued by Provincial-level Peoples Committee Chairman;⁴⁰
 - /3. All grant awards will be made on the basis of applications submitted by eligible parties up to the ceiling set for each grant category on an annual basis;
 - /4. If any one grant category is under subscribed, in a particular area, the benefit sharing council will make a determination on increasing the ceiling of another grant category for that same area, and make grant awards accordingly;
 - /5. Announcement of the call for grant applications will be made in the manner set out in the fund Charter. At least 3 months notice will be given to eligible parties for the preparation and submission of grant applications.
 - /6. Technical support will be extended to applicants requesting assistance in completing simplified a grant application forms;
 - /7. The performance results for each grant awarded will be assessed with the detail of the assessment set to reflect the size and grant.
 - /8. Cost of audit and evaluation of individual grants will be build into each grant.
 - /9. Transparency and social accountability will be a center feature of all transaction even the evaluation and award of grants to avoid abuse of power and corruption.
3. All eligible parties shall have the right to submit their proposals for grants using application forms and the manner prescribed in regulations.
4. Training of different mass organizations and commune cadres to provide technical support to eligible parties to prepare grant applications will be arranged as needed by the benefit sharing council

⁴⁰ Within the annual allocation to eligible parties in the different areas (or communes) of the project impact zone

7. Evaluation and selection of the successful applications will be made by the benefit sharing council on the basis of framework criteria in Article 33.

7. Other activities beneficial to benefit sharing and of common interest to eligible parties could be funded directly by grants. Such activities may include a grant to establish and operate a community radio service or a regular community newsletter to exchange views on benefit sharing

8. Any disputes or and appeals in the administration of funds will be handled in the manner prescribed by law and within the normal authority of the Provincial-level Peoples Committee.

Article 32: Fund administration costs and anti-corruption measures

1. The revenue-sharing fund will have a line item for administration, not to exceed 15 percent of the total amount paid into the fund each year. This fund would cover costs including:

- /1. All costs of providing technical support, as well as monitoring, audit and impact evaluation of grants awarded;
- /2. Information and outreach relating to management of the fund including community information on grant the application and awards;
- /3. Cost of the benefit sharing council as prescribed in applicable regulations.

2. The Provincial Peoples Committee and the Ministry of Industry and Trade could change the 15% ceiling in item 1 above by mutual agreement, in circumstances where the ceiling is inadequate.

3. All expenditures for administration will be indicated in the annual report to the provincial level peoples committee and the report to citizens. All expenditures for administration will be subject to audit according to applicable law.

4. Consideration will be made to have an integrity pact where members of the benefit sharing council and keep parties involved in successful grants would agree to avoid practices or behaviors that could lead to corruption, or perception of corruption, in the operation and management of the fund and spending of grants.⁴¹

Article 33: Criteria for determining successful grant applications

1. Criteria for evaluation of grant applications and award of grants shall be developed by the benefit sharing council based on consultation with eligible parties and principles in the fund Charter.

2. The criteria framework shall in any event reflect the following:

- /1. The assessed contribution of measures proposed in the grant application to advancing provincial poverty reduction targets in the project impact zone;
- /2. Ceilings for the amount of the grant for different categories of support;
- /3. Previous award of grants the same applicants and performance on each grant;
- /4. Fairness and equity in the award of grants;
- /5. Adequate consideration of grant applications from use and women's groups;

⁴¹ An Integrity Pact is a simple procedure to enhance social accountability. It is an agreement that all of the members of the benefit sharing council and all successful grant applicants would sign. It sets out the behaviors and practices that all parties will avoid that could lead to abuse or corruption that would otherwise undermine the objectives of benefit sharing and people's confidence.

- /6. Local capacity to successfully implement the measures proposed in the grant application.
- 3. Support for capacity building can be incorporated into grants in certain situations, however capacity building for households would normally be captured in grant requests for extension services delivered through existing provincial departments or mass organizations.
- 4. Each grant application shall be scored against the criteria established in the fund Charter. The aggregate results of the scoring against criteria shall serve as basis for the award of grants.
- 5. Based on consultation with the eligible parties, the benefit sharing council would decide what information on the grant evaluation is made public (1) if only the total score for each successful or unsuccessful application is published, or (2) if scores against each criteria are also published, or made available only to the applicant.

Article 34: Projects on inter-provincial rivers or affecting more than one Province

- 1. Where the impact zones of hydropower projects fall entirely within one Province, the Provincial Peoples Committee will have overall responsibility for revenue sharing arrangements.
- 2. Where the geographic extent of the project impact zone covers more than one province, funds shall be allocated between affected communes in each province in proportion to the total number of people in the affected communes, observing Item 3, below.
- 3. In cases where people with land recovered by a hydropower project in one province are resettled in another province under Decree 197, or any future decree of similar purpose, the revenue sharing allocation to each displaced community group, as stipulated in Article 30 shall be shared in proportion to the number of people relocated to the official resettlement areas in each province:
 - /1. If a resettled location is outside the river basin and project impact area of the hydropower project, that particular resettled group shall receive support for a period of ten years from the start of commercial operation of the hydropower project;
 - /2. If the resettlement location is within the river basin and project impact area that group will participate in the benefit sharing on an ongoing basis, subject to any restrictions provided by regulations;
 - /3. Any person or household who receives compensation for lost land or property under Decree 197 and voluntarily moves outside the project impact area and does not resettle in an official resettlement area shall not be entitled to participate in revenue sharing programs.⁴²
- 4. The revenue-sharing fund shall be established in the province where the dam facilities and hydropower facilities are located.
- 5. In cases where the dam is located on a river forming the boundary between two provinces the province where the power station is located will be responsible to establish the revenue-sharing fund with procedures that cover both provinces.
- 6. The provincial-level Peoples Committee in the second province will nevertheless have the option of establishing its own procedures separate revenue-sharing council to award grants to eligible parties in communes under their jurisdiction.

⁴² Unless they move back to the project impact area. This goes to the fundamental difference between compensation and benefit sharing. Benefit sharing is reserved for people living in the project impact zone and comes on top of any compensation for land or property recovered by the state.

7. The Ministry of Industry and Trade shall arbitrate on behalf of government on any dispute arising between two or more provinces on the allocation of the revenue sharing funds, based on the recommendations the Electricity Regulatory Authority of Viet Nam.

Article 35: Delivery mechanisms for measures supported by revenue-sharing funds

1. The organizing and entities involved in delivering the measures stipulated in successful grant applications shall include:

- /1. local non-government organizations, mass organizations, government departments, agencies and funds and local enterprises;
- /2. other non-government organizations as may be recommended by the benefit sharing council and the endorsed on the no-objection basis by the chairman of the Provincial- level Peoples' Committee.

2. The delivery mechanisms for successful grants will be in accordance to preferences of the successful grant applicants, wherever possible.

3. The benefit sharing council shall be responsible to ensure coordination among the different mass organizations, departments and provincial level service organizations and provincial and national program authorities for delivery of the programs.

4. Ultimate authority for approval of the delivery mechanisms for investments supported by the revenue-sharing fund rests with the Provincial-level People's Committee.

Section 4: Other Considerations

Article 36: Harmonizing with planning for local infrastructure investment and rural development extension services

1. Provincial-level People's Committees shall be responsible to put arrangements in place to ensure that benefit sharing measures are consisted with local socio-economic development policies and plans.

2. Benefit sharing councils shall ensure any entitlements or revenue sharing grants that embody (i) multi-year commitments for the revenue-sharing fund, or (ii) longer term implications for provincial budgets and support services are clearly identified and cited in annual reports.

3. Where a long-term commitment for provincial budget support is implied by a revenue-sharing grant, the benefit sharing council shall ensure the concerned provincial department is informed in advance and gives its consent before the grant application is awarded.⁴³

4. Provincial-level People's Committees shall ensure poverty reduction targets are reflected in benefit sharing arrangements and are incorporated in the evaluation of the development effectiveness of revenue sharing grants.

Article 37: Harmonization of benefit sharing funds with project-specific funds for water resources and environment protection

1. The State encourages the harmonization, and where practical, merging of project-specific for benefit sharing funds with similar funds to meet the financial obligations of hydropower projects for environment or water resource protection.

⁴³ Grants for infrastructure may embody longer-term commitments from provincial budgets and operations of line departments such as to provide teachers for local schools or medical staff for local health post built with revenue-sharing funds.

2. In particular, the State will encourage consideration and operation of single project funds with:⁴⁴
 - /1. different financing windows for benefit sharing, environment protection and water resource protection;
 - /2. a clear separation of the accounts for each financing window and clear separation of administrative costs;
 - /3. common arrangements to apply benefit-sharing principles in the operation of the environment and water resource protection windows.
3. The State seeks to encourage synergy in the sustainable management of hydropower assets by linking these provisions in an efficient and common sense manner.

Chapter 6: General Implementation Provisions

Article 38: Implementation roles of ministries and organizations at the state level

Ministries, ministerial-level agencies, agencies attached to the Government shall have the following responsibilities within their respective functions and tasks.

1. The Ministry of Industry and Trade will be responsible for, or assigning responsibility to the Electricity Regulatory Authority of Vietnam for:
 - /1. Coordinating with Provincial People's Committees, the Ministry of Planning and Investment, the Ministry of Finance and concerned ministries and branches on the priorities and measures to target communities adversely affected by hydropower projects within existing state and provincial rural electrification budgets.
 - /2. Ensuring adequate evaluation of needs for rural electrification investment in the impact zone of the hydropower projects are incorporated in the feasibility and detailed design studies, in a manner consistent with Chapters 2 and 3 of this Decree.
 - /3. Ensuring the costs and impacts of such investments in improving electricity access in the project impact zone are advanced to competent authorities for decision in a timely manner.
 - /4. Ensuring that revenue sharing arrangements for hydropower projects are compatible with power market reforms being introduced and reflect the principles, rules and regulations for operation of the competitive power market in applicable regulation.
 - /5. Establishing and operating a central reserve account to facilitate the smooth startup and operation of project-specific revenue-sharing funds, in accordance with provisions in this Decree.
 - /6. Supporting the establishment and operation of the project-specific revenue sharing funds and advising Provincial-level People's Committees on these matters through DOIs or ERAV;
 - /7. Handling and resolving problem arising with financing mechanisms for revenue sharing;
 - /8. Ensuring electricity tariff structures recommended adequately reflect revenue-sharing arrangements stipulated elsewhere in this decree, and for evaluating the impact of revenue sharing on retail tariffs.
 - /9. Working closely with the Ministry of Natural Resources and Environment on the harmonization of funds for revenue sharing, environment protection and water resource

⁴⁴ This would follow procedures set out for the establishment of environment protection funds in the law on environment protection and subsequent sub-laws.

protection in conjunction with the concerned agencies and Provincial-level Peoples' Committees.

- /10. Enlisting the support from international donors to continuously assess and improve policies and implementation procedures for benefit sharing, based on evolving regional and international experience;
 - /11. Gather experience of other regulators and utilities in Asia and elsewhere in normal technical exchanges to stay current with international experience on benefit sharing mechanisms to advance sustainable management of hydropower assets and increase attractiveness to potential donors and investors in hydropower projects.
 - /12. Undertaking an annual review of progress in implementing benefit-sharing mechanisms on new and existing hydropower projects on a country-wide basis, including assessment of the impact of benefit sharing measures on key monitoring indicators.
 - /13. Exploring how benefit-sharing principles can be extended to other types of power sector infrastructure including other generation types and major transmission facilities that have adverse effects on local communities hosting such projects.
2. The Ministry of Natural Resources and Environment shall:
- /1. Offer guidance on linking provisions in strategic environment assessments, river basin plans and EIAs to benefit sharing assessments as provided in this Decree;
 - /2. Work with other State Environment Agencies as necessary to ensure that EIAs for all hydropower projects provides a clear indication of (i) the geographic extent of the project impact zone (ii) the communes, or parts of communes which reside in the project impact zone (iii) the numbers of households in each commune in the project impact zone, and (iv) the nature of the potentially adverse impacts on communities in each area.
 - /3. Offer advice on linking benefit sharing to environment and water resource protection obligations of hydropower projects including the financing mechanisms, the harmonization and simplification of project funds and the implementation of complementary measures;
 - /4. Seek additional opportunities to integrate benefit sharing principles in policies and activities for involving local communities in collective and joint local action on environment and water resource protection obligations of hydropower projects;
 - /5. Facilitate and encourage the involvement of river basin organizations in benefit sharing and providing advice on more complex situations as noted in Article 13;
 - /6. Support improvement of institutional and professional capability for integrating benefit sharing assessments in strategic and project level environment assessments and river basin planning work.
3. The Ministry of Planning and Investment (MPI) shall have responsibility to:
- /1. Advise on improvements in the implementation of benefit sharing measures and consistency with laws concerning construction and investment.
 - /2. Work with other Ministries and departments to establish priorities to target existing rural electrification funds to communities adversely affected by hydropower projects.
 - /3. Advise on ways to reflect benefit-sharing principles in the construction phase of hydropower projects such as maximizing local employment and local economic returns consistent with applicable law.
4. The Ministry of Finance (MOF) shall have responsibility for offering guidance and instruction on

the audit of all financial transactions related to the revenue sharing fund and award, monitoring and audit of grants from the fund. The MOF Finance shall also:

- /1. Support discussions on the targeting of existing rural electrification budgets as determined in consultation with the concerned state agencies and Provincial Peoples Committee's.
 - /2. Guide DOFs advise the Provincial level People's Committees on procedures for budget transfers for the effective operation of revenue-sharing funds and payments to entities involved in the delivery of measures;
 - /3. Guide DOFs on ensuring accounting procedures are followed in all aspects of the establishment and operation of revenue-sharing funds;
 - /4. Support or take other steps as necessary to ensure the success of revenue sharing according to the objectives and principles set out in this Decree including transparency and anti-corruption provisions.
5. The Provincial Ethnic Department shall have responsibility to:
- /1. Ensure that benefit sharing policies and implementation of measures are consistent with national support programs for Ethnic communities and communities in difficult or extremely difficult socio-economic conditions;
 - /2. advise on all three forms of benefit sharing and the transfer of experiences among ethnic communities in different provinces;
 - /3. ensuring that ethnic communities interests are adequately represented by benefit sharing councils; and
 - /4. assisting in ensuring the smooth and effective coordination of measures delivered through national programs for ethnic groups including Programs 135 and 133.

Article 39: Responsibilities of People's Committees at all levels

1. Provincial-level People's Committees shall have the responsibilities to:
 - /1. Direct, organize, propagate and mobilize all organizations concerning the successful introduction of benefit sharing mechanisms for hydropower projects in their jurisdiction;
 - /2. Appoint and guide the benefit sharing councils for hydropower projects and oversee the award and use of revenue sharing funds in their respective jurisdictions;
 - /3. Direct the provincial services, departments, branches and district-level and commune People's Committees on extending timely support to the benefit sharing council on all aspects of the council's mandate;
 - /4. Organize and direct the basic surveys, inventory and assessment of electrification and electricity access the impact zones of hydropower projects in their respective localities under the guidance of the Ministry of Industry and Trade and the concerned ministries and branches;
 - /5. Instruct provincial organizations in setting targets for poverty alleviation in the project impact zone that will form an integral part of the criteria for (i) deciding the level of funds to allocate to different grant categories (ii) evaluating grant applications and (iii) monitoring the development effectiveness of benefit sharing mechanisms, and (iv) fine tuning and adjusting benefit sharing activities;
 - /6. Take steps as necessary to set priorities to fund improvements in electricity access and levels of service within existing provincial budget allocations for rural electrification;
 - /7. Ensure that entitlements to enhance access to resources for adversely affected communities are given due consideration on the recommendation of the benefit sharing council and the

advice of provincial-level services, departments and branches;

- /8. Take steps as necessary to consider retail power tariffs for rural, mountainous and island activities in relation to people adversely affected by hydropower projects.
 - /9. Establish a policy on support for entitlements to improve resource access for people adversely affected by hydropower projects and ensure that district and commune-level People's Committees and relevant departments are informed of these policies;
 - /10. Provide the timely and necessary support for the establishment of revenue-sharing funds and for implementation of measures financed by revenue sharing grants;
 - /11. Take final decision and arbitrate in the dispute over the eligibility of different groups to participate in benefit sharing;
 - /12. Review the annual reports submitted by the benefit sharing councils to identify additional direction or need for correction of deficiencies in the efficient and affected delivery of benefit sharing in their jurisdiction;
 - /13. Advise the provincial assembly on any implication of revenue-sharing grants investments on the state budget or a future commitments of the state budget and seek their approval where necessary for such grants;
 - /14. Ensure impartiality and equity in revenue-sharing arrangements prescribed in this Decree, according to their competence and with regard to ensuring adequate provisions for social accountability involving the active participation of beneficiaries and monitoring procedures are introduced;
 - /15. Direct the concerned agencies to settle citizens' complaints or denunciations related to revenue sharing in a timely manner to maintain confidence in benefit sharing and according to prescribed laws;
 - /16. Direct the examination and handling of violations in the revenue sharing domain as it impacts on the objectives and effectiveness policy set forth in this Decree;
 - /17. Ensure a consistent approach to benefit sharing on hydropower projects operating in their jurisdiction; and
 - /18. Ensure that good practice lessons from other provinces are reflected in ongoing efforts to improve the effectiveness of benefit sharing measures in their jurisdiction.
2. District-level People's Committees shall have responsibilities to:
- /1. To direct, organize, propagate and mobilize all organizations and individuals concerning benefit sharing and relevant decisions of competent Provincial and State bodies;
 - /2. To support collaborative processes led by benefit sharing council to draw up, and organize the implementation of revenue-sharing fund Charter;
 - /3. To coordinate with the provincial services, departments and branches, organizations and investors in executing beneficiary defined investments funded by revenue-sharing;
 - /4. To guarantee impartiality and equity in revenue-sharing arrangements according to their competence, in particular with regard to ensuring that adequate provisions for social accountability involving the active participation of beneficiaries and monitoring procedures are introduced.
3. Commune-level People's Committees shall have the responsibilities to:

- /1. To direct, organize, propagate and mobilize individuals concerning benefit sharing and relevant decisions of competent Provincial and State bodies;
- /2. To organize information on revenue-sharing policies and procedures for hydropower projects and communicate this to all eligible parties in their commune;
- /3. To coordinate with the benefit sharing councils to encourage quality in the applications for revenue-sharing grants and in arranging the delivery of measures supported by successful applications;
- /4. To ensure that the views and interests of eligible parties are accurately reflected in information provided to the benefit sharing council;
- /5. To bring to the attention of the revenue sharing council any issues or concerns impacting on eligible parties in their respective jurisdiction;
- /6. To join in, and create conditions for the successful realization of the local development aims as set out in this Decree.

Article 40: Responsibilities of provincial-level services, departments and branches

1. Finance Services shall be responsible for:
 - /1. Providing expertise and advice to benefit sharing councils on the establishment and financial aspects of the operation of revenue sharing funds;
 - /2. Inspecting the payment of grants and expenses for the organization of revenue sharing in their localities
 - /3. Advise and support the audit of the expenditure of funds as applicable.
2. The Planning and Investment Services shall have the responsibility to guide and inspect the formulation and execution of investment projects supported with benefit sharing funds.
3. The Natural Resources and Environment Services shall have the responsibilities:
 - /1. Guide the implementation of measures that involve local management of ecosystem services;
 - /2. To help ensure practical measures for reflecting benefit sharing principles in this decree are reflected in environment protection activities
4. *Note the important roles of other provincial level departments and agencies such as DARDs will be incorporated in the guidelines during the pilot phase.*

Article 41: Hydropower investors shall have responsibility as follows:

1. Electricity of Vietnam (EVN) shall:
 - /1. Establish internal rules and practices to incorporate benefit-sharing assessments in project preparation and detailed design work and submit these to Ministry of Industry and Trade for approval.
 - /2. Conform to any requirements for facilitating transfer of funds in accordance with this Decree and rules of market operation established by Ministry of Industry and Trade and competent authorities;
 - /3. Organize training to improve staff capability in newly established companies under EVN to reflect benefit sharing arrangements in hydropower project planning and operation activities as set out in this Decree;
 - /4. Support the effective operation of the revenue sharing funds and the local development

initiatives supported by the fund;

- /5. Offering expertise, ideas, insight and other constructive suggestions on benefit sharing measures that not only contribute to boosting local development, but also contribute to:
 - a. Linking benefit sharing mechanisms to the long-term sustainable operation of the reservoir;
 - b. extending live storage capacity of reservoirs and maintaining revenue flow from hydropower projects;
 - c. linking the management of ecosystem services to the operation of the reservoir and release patterns from the powerhouse;
 - d. linking the operation of the reservoir to ecosystem services management and beneficial aspects of downstream flood protection.
2. Project Management Boards for the implementation phase of hydropower projects shall:
 - /1. ensure the preparations for benefit sharing specified in chapter 2 for the implementation phase of hydropower projects are undertaken;
 - /2. take account of the results of surveys of electricity access and levels of services during project preparation activities;
 - /3. reflect provisions for electrification of resettlement areas in project capital budgets.
3. Independent power producers (IPPs) shall:
 - /1. Undertake any and all measures as required under this Decree that impact on their hydropower development and operation activities;
 - /2. Organize training for their staff to meet requirements under this Decree.
 - /3. Adopt a corporate philosophy where local communities hosting their project are seen as long-term local partners in sustainable management of the hydropower asset and reflect this philosophy in dealings, public interactions and public relations with the host community.

Article 42: Implementation effect

This Decision shall come into effect 15 days after the public announcement.

Article 43: Implementation responsibilities

The Minister of Ministry of Industry and Trade, other Ministers, Directors of the Ministerial offices, Directors of the Government bodies, Chairman of the provinces People Committees under the Central, Electricity of Vietnam and the related agencies are responsible to implement this Decision

Annex 2:

Draft outline of an Inter-ministry Circular

MINISTRY OF INDUSTRY AND TRADE
AND
MINISTRY OF NATURAL RESOURCES
AND ENVIRONMENT PROTECTION

SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness

OR
A GOVERNMENT CIRCULAR
No. _____

Re: CIRCULAR GUIDING IMPLEMENTATION OF (PMO OR GOVERNMENT) DECREE ON BENEFIT SHARING WITH LOCAL COMMUNITIES ADVERSELY AFFECTED BY HYDROPOWER PROJECTS

Hanoi 200_

To: Ministries, Ministerial Equivalent Bodies and Government Bodies
People's Committees of Provinces and Cities under Central Authority
State Corporations engaged in hydropower development.

The Ministries of Industry and Trade and Natural Resources and Environment in collaboration hereby provide guidelines for concerned organizations to implement Decree No. __ dated __ on establishing benefit sharing arrangements with local communities adversely affected by hydropower projects.

The Decree establishes a sector policy framework for benefit sharing to advance sustainable development of the power sector as provided in the Electricity Act (2004) and to balance economic, social and environmental dimensions in hydropower investment projects.

On the basis of these guidelines, Ministries, localities and power entities shall direct their staff to implement these guidelines when they engage in activities concerning the development and management of hydropower projects.

Any concerns about the contents of guidelines should be addressed to the Electricity Regulatory of Vietnam for advice and to the Ministry of Industry and Trade for its consideration and amendment in the interest of ongoing improvement of the regulations.

MINISTRY OF INDUSTRY AND TRADE
OR
A GOVERNMENT CIRCULAR

MINISTRY OF NATURAL RESOURCES AND
ENVIRONMENT PROTECTION

Note: See Interim Report-2 for the Outline

Appendix B: Work Plan for the Pilot Project

Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects in Viet Nam

Asian Development Bank TA-4689 (VIE)

Pilot Project Work Plan

Field test of national guidelines for benefit sharing
A'Vuong Hydropower project in Quang Nam Province
Viet Nam

Appendix B to the Final TA Report

Prepared for the

ASIAN DEVELOPMENT BANK

And the

Electricity Regulatory Authority of Viet Nam, Ministry of Industry and Trade

GOVERNMENT OF VIET NAM

**Prepared by the TA Consultants
Lawrence J.M. Haas, UK
And the Institute for Energy Studies (IES), Hanoi**

DECEMBER 2007

PREFACE

This document outlines the general approach and work plan to pilot test benefit sharing mechanisms for local communities adversely affected by hydropower projects in Viet Nam. The 210 MW A’Vuong hydropower project located in the central highlands of Quang Nam Province will “host” the field test of the guidelines.

Globally there is growing awareness of the key role that benefit sharing mechanisms, in particular revenue sharing, can play in promoting sustainable hydropower development. Benefit sharing is a practical policy tool that governments can deploy to better balance the economic, social and environment aspects of infrastructure service provision – by providing opportunity and empowerment for local action on the ground.

A 2-stage process is proposed to provide flexibility in seeking financing partners for the pilot and to reflect the needs for legislation and capacity building.

The first stage of the pilot supports field-testing guidelines for the introduction of benefit sharing mechanisms that were prepared in a collaborative process led by the Electricity Regulatory Authority of Viet Nam (ERAV) in 2006-2007. This work was supported by technical assistance from the Asian Development Bank under ADB TA-4689 (VIE). The guidelines represent a first draft of the national-level legal instruments. Ideally the sub-laws would be introduced in the 2009-2010 timeframe to coincide with the first stage of the competitive electricity generation market in Viet Nam being undertaken as part of the wider power sector reform process.

It is proposed that Stage 1 of the pilot would start in early 2008. Stage 2 of the pilot provides for more in-depth testing of the benefit sharing mechanisms, in parallel with preparation of the capacity building tools and program needed to scale-up benefit sharing mechanisms nationally to all existing and new hydropower projects, after legislation is in place. It is proposed that Stage 2 of the pilot would start in 2009 and overlap with Stage 1 activities.

This work plan was prepared as an Appendix to the main TA Final Report, but in stand-alone form to make it convenient for discussion with donors and strategic partners.

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Annex 1: Stage 1 Budget – Detailed

SUMMARY

In 2006 to 2007 draft guidelines to implement benefit-sharing mechanisms on hydropower projects suited to the Vietnamese situation were developed in a collaborative process led by the new Electricity Regulatory Authority of Viet Nam (ERAV).

The guidelines were prepared in the form of a draft decree-law, following the direction set by an inter-agency Steering Committee. They incorporate three main forms of benefit sharing on hydropower projects found in international practice, which are supported by Viet Nam's own development policy framework, namely:

- (i) Equitable access to electricity services;
- (ii) Enhanced entitlements for natural resource access to offset resource access lost or transformed due to the hydropower project operation; and
- (iii) Direct revenue sharing through a grant application system to support beneficiary defined local development initiatives.

The guidelines propose a bottom-up-process to decide how revenue sharing funds will be invested to support poverty reduction, local community development, and cultural activities. A transparent grant application procedure managed by a benefit sharing council with local representation is the mechanism to achieve this.¹ Measures eligible for revenue sharing grants are decided by the council, applying transparent criteria set out in a fund charter.²

Local communities can also be empowered to take advantage of local entrepreneurial and income raising opportunities created by the hydropower project locating in their area (either through successful grant applications or applying for enhanced entitlements consistent with existing laws, but not utilized to their full potential).

The guidelines take a comprehensive approach to introduce benefit-sharing principles over all stages of the project cycle for hydropower development. For instance, based on international experience, steps to explicitly include thinking about benefit sharing in the up-front strategic planning studies that feed government decisions on which hydropower sites to develop are specified. This guidance continues through project preparation, design and construction stages. Groundwork for benefit sharing is, for example, factored into feasibility studies, the EIA process and resettlement planning activities so that benefit sharing becomes part of the culture of hydropower development.

As discussed in the TA reports, early consideration of benefit sharing in project planning and preparation process can reveal numerous ways to improve the overall development

¹ The eligible measures, the definition of eligible parties, the formula to allocate funds to different areas of the project impact zone (as defined by the EIA and reflected in the Fund Charter and the grant decision criteria are all pre-established in a Charter for the revenue sharing fund. These funds are project-specific.

² Measures supported are set out in Articles in the guidelines. They typically range from micro-credit facilities implemented by existing mass organizations (e.g. women's, youth or farmers unions) to funding increments to existing targeted programs designed to improve village-scale infrastructure and provide extension services to payment for ecological services that support local livelihood and welfare improvement opportunities.

effectiveness of hydropower projects and build features into the physical design and parameters for operating hydropower facilities in a least-cost way.³

This work is part of Viet Nam's effort to promote sustainable development of the power sector. The guidelines are consistent with power market reforms introduced by the Electricity Act (2004) and with highly progressive legislation introduced for water resource and environment protection since 2004, which apply to hydropower resource development.

The 210 MW A'Vuong hydropower project in the Vu Gia-Thu Bon river basin in the central highlands of Quang Nam Province was selected to field test the guidelines. This followed a program of field survey and consultation with local communities living in the areas around the project, now in final stages of construction. In September 2007 a provincial-level workshop confirmed that the Provincial People's Committee (PPC) of Quang Nam Province strongly endorses the concept and principles of benefit sharing and extends unreserved support to be the host Province for the pilot.⁴

What are the objectives?

The three main objectives of the BSM pilot project are:

1. To field test and modify the draft guidelines and provide recommendations on further development of legal instruments suited to Vietnamese conditions;
2. To develop capacity building tools to scale-up the introduction of benefit sharing mechanisms on hydropower projects in Viet Nam in a systematic and consistent manner, once the legal framework is in place; and
3. To contribute to the sustainability of the A'Vuong hydropower project by enhancing the social and environmental components and thereby improve the livelihood opportunities for the most marginalized groups.

These objectives reflect the need for practical tools to introduce benefit-sharing mechanisms according to the Vietnamese situation and needs.

What are the key design considerations?

Considerations that shaped the scope and design of the pilot project were:

- i). Feedback from the rapid appraisals conducted on three hydropower projects: the Song-Bung 4, A'Vuong and Song Hinh hydropower projects). These projects are at different stage of development (i.e. advanced planning and detailed design, implementation and operation);

³ Like incorporating bottom flow outlets, variable-level intake, fish by-passes and fish-friendly turbines in the design and equipment specifications; or considering rural electrification investments during the feasibility or detailed design stage; or incorporating environmental flow assessments in the design of the reservoir operating strategy and optimising how the project generation outputs and flood-management rules.

⁴ Minutes of the Provincial-level workshops and meetings, the field consultations and the three national workshops attended are available in the Draft Final TA Report in Volumes 2 and 3.

-
- ii). Feedback from people living in the impact zone of the A'Vuong hydropower project and from officials of Quang Nam Province, including their views on the first draft of the guidelines and preferences on what to include in the pilot project;⁵
 - iii). The nature of activities needed to extrapolate the results of the field test performed on the A'Vuong projects to all existing and new hydropower projects in Viet Nam;
 - iv). The legislative timetable for introducing the first stages of power market reform in Viet Nam (by 2009-2010), which the pilot project results need to be fed into; and
 - v). The source of finance and budget level for the pilot including the timeframe typically required for raising financing.

The legal instruments for revenue sharing mechanisms in particular, would ideally be introduced at the same time as the new rules for the competitive electricity generation markets come into effect. That means digested results from the test and revision of the guidelines are needed by mid-2009 to inform the legislative process in a timely way.

General approach

In view of these considerations a 2-level budget is proposed:

- (1) **Stage 1 budget:** Which is a fast-track budget to provide the minimum activity on a least-cost basis over a 14-month timeframe, primarily using Vietnamese professional capacities to:
 - /1. Establish a benefit sharing council and a temporary revenue sharing account;
 - /2. Prepare a model fund Charter and other key instruments like the application forms to implement revenue sharing grants according to the guidelines, introducing modifications as appropriate;⁶
 - /3. Assess and recommend measures for equitable sharing of electricity access and enhanced entitlements for natural resource access - which test the provisions in the guidelines and also respond to the views of the A'Vuong community when they reviewed the draft guidelines;
 - /4. Provide at least one-cycle of grant application and award using a nominal budget in Stage 1 to test the delivery and monitoring mechanisms for measures people prefer, as set out in the guidelines, and
 - /5. Prepare an article-by-article review of the guidelines, make amendments based on the pilot results and provide recommendations on finalizing the legal instruments to introduce benefit-sharing mechanisms nationally.
- (2) **Stage 2 budget:** A larger budget building on Stage 1 activities to:
 - /1. Field test a wider range of grant awards from the pilot revenue sharing account, in perhaps two or more cycles and extend the pilot project timeframe from 14 to 24 months, or slightly more;

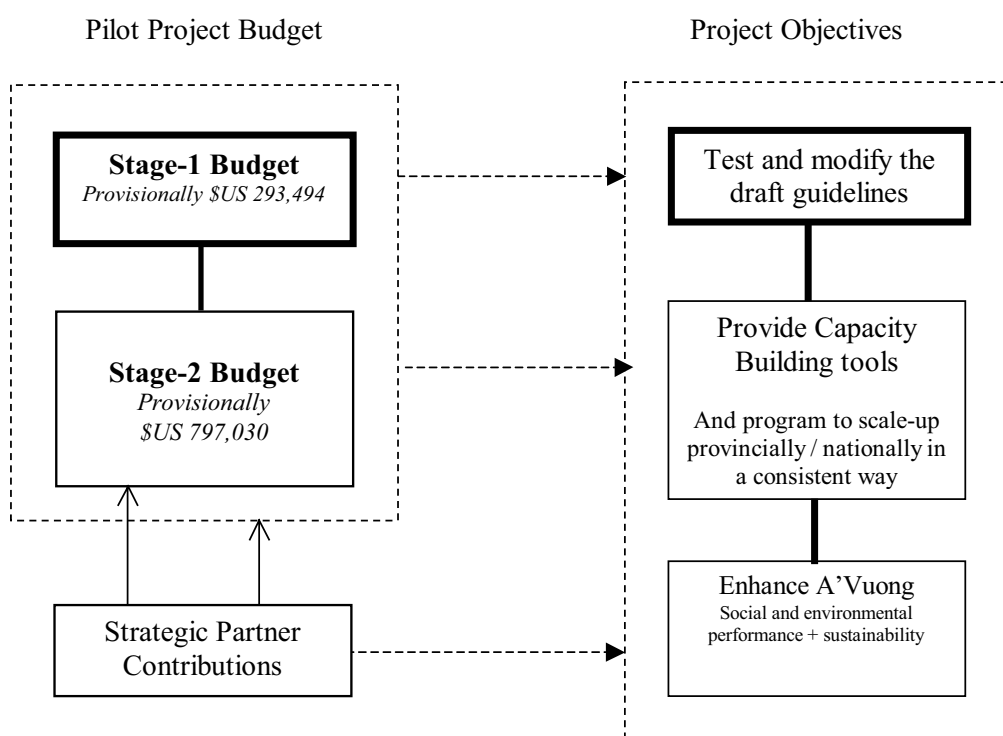
⁵ This includes people living in the upstream and downstream zones of the project impact area and not just focussing narrowly on the resettled communities and host resettlement community.

⁶ Other instruments include a model grant application form and community newsletters that would be appropriate to share with residents at each important stage of the process.

- /2. Assess in more detail the development effectiveness of benefit sharing measures adopted by participants and make the linkages to poverty reduction targets and recommend practical monitoring tools;
- /3. Develop a more comprehensive set of capacity building tools based on the pilot, as well as relevant international experience to facilitate rapid and smooth startup of benefit sharing on other hydropower projects in Viet Nam;⁷
- /4. Enable ERAV to draw upon regional and international expertise at a more optimal level to prepare the legislation and capacity building tools and formulate a scaling-up program; and
- /5. Concretely enhance the environment and management components of the A'Vuong project with a larger allocation to revenue sharing grants.

The 2-level budget allows flexibility as it decouples the capacity building work from the legislative agenda and timetable. Figure A1 below illustrates the approach.

Figure A1: General Approach



Activity framework

The pilot project is organized around seven activity categories. They provide a framework to practically test how Quang Nam Province would operationalize the guidelines (and recommend improvements) and to maximize the knowledge sharing, collaboration and consensus building aspects. These activities include:

⁷ Including operation manuals and training manuals that can be used on other projects in Viet Nam once the legislation is introduced.

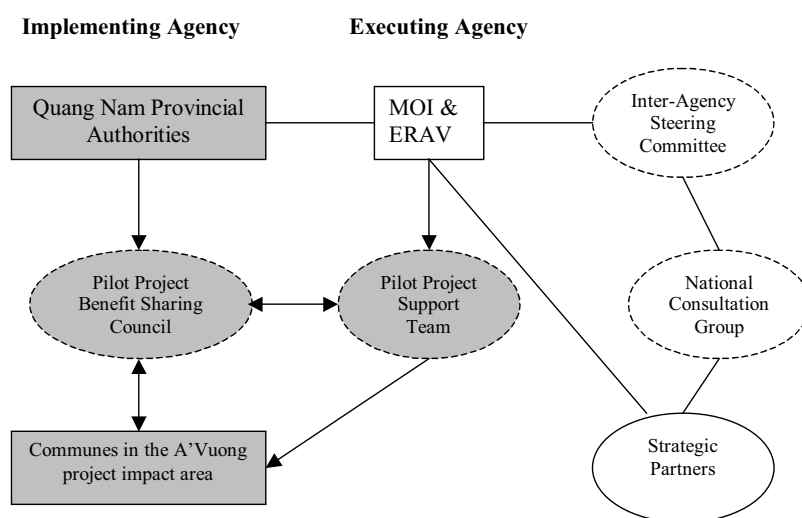
1. Peoples Committees work
2. Benefit sharing council work
3. Small grant program – to distribute revenue sharing grants
4. Knowledge sharing & capacity building
5. Project team support, training and reports
6. Monitoring, audit, evaluation & social accountability
7. Steering committee and national workshops

Sub-activities identified in each area will be refined in the Pilot Inception Report, once the Stage 1 funding levels are confirmed. Preparation of the Inception Report will provide a basis for further discussion between Quang Nam Province, ERAV and the donor partners on emerging priorities for the work plan.

Implementation Arrangements

Figure A2 illustrates the coordination structure proposed to implement the pilot. The benefit sharing council is appointed by and would report directly to the Provincial People's Committee, as provided in the guidelines.

Figure A2: Pilot project coordination structure



ERAV as the Executing Agency would maintain overall responsibility for the pilot. ERAV operates under the jurisdiction of the Ministry of Industry and Trade (MOIT), which is responsible for power sector matters on behalf of the government. ERAV itself will have the lead responsible for translating the pilot results into draft legal instruments that the Ministry would propose and assembling the capacity building tools. ERAV would chair the same Inter-Agency Steering Committee established for the initial TA.

The local support team members will play a key role in implementing the pilot activities, providing on the ground training support and coordination. They will also function as the Secretariat for the benefit sharing council. The local support team would have primary responsibility for preparing the TA reports and would be hired by and report to ERAV. In

addition working groups would be established for each chapter of the guidelines. Donors would provide the regional and international advisory inputs indicated in the Stage 1 and 2 budgets. Donors and Strategic Partners may have a role on Steering Committee, or alternatively as a sub-committee, or play a prominent role on the national consultation group.

The national consultation group established for ADB TA-4689 (VIE) would be maintained for the pilot test. There was general agreement on the value of this provided not only for advice on the implementation of the pilot but also to increase awareness and build knowledge and networks required for the full rollout of the national program, when the legislation is in place. This group currently has open membership and includes interested NGOs working in Viet Nam and in Quang Nam Province in the power, rural development and environment sectors, and especially on programs targeted to the poor and ethnic minorities.

There is special interest in the use of revenue-sharing funds as a vehicle for payment for ecological services, particularly for the management of ecosystem services adversely transformed by hydropower operations and those ecosystem services that contribute to sustainable management of hydropower assets, like erosion control.⁸

Budget levels

The provisional estimate of the Stage 1 budget for the pilot is \$US 293,494 equivalent, with the bulk of the expenditure in local currency (VND). Table A1 shows the activity breakdown cost, the local and foreign currency components and the disbursement schedule for Stage 1. Table A2 illustrates the breakdown by expenditure category.

Table A1

Stage 1 Budget: Total + Disbursement Schedule

Activity	Local Currency Component		Foreign Currency Component	Disbursement \$US Equivalent		
	VND (000's)	\$US EQ	\$US	Year 1	Year 2	Total
1. PEOPLES COMMITTEES WORK	232,000	\$14,061	0	14,061	\$0	\$14,061
2. BENEFIT SHARING COUNCIL WORK	420,000	\$25,455	0	25,455	\$0	\$25,455
3. REVENUE-SHARING GRANTS	1,000,000	\$60,606	0	60,606	\$0	\$60,606
4. KNOWLEDGE SHARING & CAPACITY BUILDING	473,000	\$28,667	0	28,667	\$0	\$28,667
5. PROJECT TEAM SUPPORT, TRAINING AND REPORTS	859,100	\$52,067	67,900	119,967	\$0	\$119,967
6. MONITORING, AUDIT, EVALUATION & SOCIAL ACCOUNTABILITY	36,600	\$2,218	0	2,218	\$0	\$2,218
7. STEERING COMMITTEE AND NATIONAL WORKSHOPS	471,000	\$28,545	0	28,545	\$0	\$28,545
Stage 1 Activity Total	3,491,700	\$211,618	\$67,900	\$279,518	\$0	\$279,518
Contingency (5% in Activities)						\$13,976
Total Projected Stage 1 Budget						\$293,494

Exchange Rate VND to \$US

16,500

⁸ The completion report for ADB TA-4689 (VIE) includes the list of Vietnamese-based organizations that attended the three national consultation workshops to discuss in sequence (1) the policy review (2) the draft guidelines and (3) the pilot project work plan.

Table A2

Stage 1 Budget: Expenditure Categories

USD EQUIVALENT

Activity / Expenditure Category	Consultant Services (Fees)	Equipment Procurement	Awareness Training / Capacity Building / Other	Allowances	Travel and Subsistence (All)	Grant Awards	Total
1. PEOPLES COMMITTEES WORK	0	0	1,818	9,200	3,042	0	\$14,061
2. BENEFIT SHARING COUNCIL WORK	0	0	0	13,091	12,364	0	\$25,455
3. REVENUE-SHARING GRANTS	0	0	0	0	0	60,606	\$60,606
4. KNOWLEDGE SHARING & CAPACITY BUILDING	10,909	0	8,061	0	9,697	0	\$28,667
5. PROJECT TEAM SUPPORT, TRAINING AND REPORTS	73,620	9,206	0	0	35,686	0	\$119,967
6. MONITORING, AUDIT, EVALUATION & SOCIAL ACCOUNTABILITY	1,455	0	0	545	218	0	\$2,218
7. STEERING COMMITTEE AND NATIONAL WORKSHOPS	0	0	8,727	4,485	15,333	0	\$28,545
	\$85,983	\$9,206	\$18,606	\$27,321	\$76,341	\$60,606	\$279,518
Stage 1 - Activity Total							\$279,518
Physical Contingency							\$13,976
Total Projected Stage 1 Budget							\$293,494

The provisional estimate of the Stage 2 Budget is \$US 797,030. Similar information on the Stage 2 budget is shown in Tables A3 and A4 below.

Table A3

Stage 2 Budget: Total

Disbursement Schedule

Activity	Local Currency Component		Foreign Currency Component		Disbursement \$US Equivalent			
	VND (000's)	\$US EQ	VND (000's)	\$US	Year 1	Year 2	Year 3	Total
1. PEOPLES COMMITTEES WORK	232,000	\$14,061		\$0	\$0	\$14,061	\$0	\$14,061
2. BENEFIT SHARING COUNCIL WORK	420,000	\$25,455		\$0	\$0	\$25,455	\$0	\$25,455
3. REVENUE-SHARING GRANTS	3,500,000	\$212,121		\$0	\$0	\$212,121	\$0	\$212,121
4. KNOWLEDGE SHARING & CAPACITY BUILDING	2,056,600	\$124,642		\$81,300	\$0	\$205,942	\$0	\$205,942
5. PROJECT TEAM SUPPORT, TRAINING AND REPORTS	1,171,100	\$70,976		\$117,100	\$0	\$188,076	\$0	\$188,076
6. MONITORING, AUDIT, EVALUATION & SOCIAL ACCOUNTABILITY	207,800	\$12,594		\$54,100	\$0	\$66,694	\$0	\$66,694
7. STEERING COMMITTEE AND NATIONAL WORKSHOPS	771,000	\$46,727		\$0	\$0	\$46,727	\$0	\$46,727
Stage 2 Activity Total	8,358,500	\$506,576		\$252,500	\$0	\$759,076	\$0	\$759,076
Contingency								\$37,954
Total Projected Stage 2 Budget								\$797,030

Exchange Rate VND to \$US 16,500

Table A4

Stage 2 Budget: Expenditure Categories

USD EQUIVALENT

Activity / Expenditure Category	Consultant Services (Fees)	Equipment Procurement	Awareness Training / Capacity Building / Other	Allowances	Travel and Subsistence (All)	Grant Awards	Total
1. PEOPLES COMMITTEES WORK	0	0	1,818	9,200	3,042	0	\$14,061
2. BENEFIT SHARING COUNCIL WORK	0	0	0	13,091	12,364	0	\$25,455
3. REVENUE-SHARING GRANTS	0	0	0	0	0	212,121	\$212,121
4. KNOWLEDGE SHARING & CAPACITY BUILDING	75,621	0	96,242	0	34,079	0	\$205,942
5. PROJECT TEAM SUPPORT, TRAINING AND REPORTS	135,636	12,018	5,721	0	34,701	0	\$188,076
6. MONITORING, AUDIT, EVALUATION & SOCIAL ACCOUNTABILITY	41,325	0	0	545	24,823	0	\$66,694
7. STEERING COMMITTEE AND NATIONAL WORKSHOPS	0	0	20,330	10,887	15,510	0	\$46,727
	\$252,582	\$12,018	\$124,112	\$33,723	\$124,519	\$212,121	\$759,076
INCREMENTAL Activity Total							\$759,076
Contingency							\$37,954
Total Projected Stage 2 Budget							\$797,030

One point of reference on these numbers is the A'Vuong hydropower project, once it is operational, would generate about \$US 850,000 equivalent in revenue sharing funds a year. This assumes the facility has an average annual production of 938 GWh/yr, as indicated in the feasibility study and that 2% of gross revenue is applied to revenue sharing.⁹

The guidelines also provide that 15% of the annual revenue-sharing contributions would be allocated for administration, audit and management purposes for the revenue sharing fund. The balance would go to small grants to support measures on the ground. This would mean that roughly \$US 700,000 - \$US 720,000 would be available for revenue-sharing grants annually - which compares to the \$US 270,000 equivalent identified for pilot testing the delivery mechanisms, or slightly over one-third the annual amount anticipated.

Financing plan for the pilot

Table A5 shows the total combined budget for Stages 1 and 2 of the pilot, and the potential split between counterpart and donor grant contributions. A key assumption is the counterpart contribution would be 20% to 30% of the total projected costs.¹⁰

The financing plan thus assumes approaches will be made to donors for the equivalent of approximately \$232,888 for the Stage 1 budget.

Table A5

⁹ A critical question is the financing formula for revenue sharing as discussed in Interim Report 2 and the national workshops. The \$850,000 assumes the fixed 2% of gross revenue as a working assumption in the guidelines and applying the 2006 tariff rates. At the first provincial workshop to discuss the benefit-sharing concept, some Quang Nam Province officials suggested that 5% might be more appropriate. The pilot needs to inform that key policy discussion. India's new hydropower policy recently proposed allocating the equivalent of 2% of project revenue to a local area development fund in all Indian States - with 1% coming from the federal level and 1% coming from the States current allocation of 10% of the project revenue. The Draft Final Report provides further examples of policies different countries have adopted.

¹⁰ Based on traditional approaches to splitting the cost of development projects between donors and the government budget.

Pilot Project Budget	Total (\$US)	Counterpart (\$US)	%	Donor Grant (\$US)	%
Part A Fast Track - For Legislation	\$293,494	\$60,606	20.6%	\$232,888	79.4%
Part B Enhancement +Capacity Building	\$797,030	\$212,121	26.6%	\$584,908	73.4%
	\$1,090,524	\$272,727	25.0%	\$817,796	75.0%

Notes: (1) Include of Contingency of 5%
(2) Exchange rater VND to \$US 16,500

ERAV through MOIT would propose that the Government would consider a contribution of approximately \$60,000 equivalent (in local currency), either from government budget sources or arranging alternative financing from strategic partners, possibly on a cost-recovery basis.¹¹ It is further proposed the government contribution would cover the revenue sharing grants to pilot test the benefit sharing mechanisms. This is reflected in the budget for the small grants shown in Activity 3 in Table A1.

The Stage 2 budget would extend the pilot test and provide for the essential capacity building elements discussed previously. It would be wholly complementary with Stage 1 activities and fund additional cycles of grant awards. A key assumption is at least one year is needed to secure commitments from international partners for the funding levels involved.

Strategic Partner contributions could potentially be of three kinds (i) direct contributions to the pilot budget (ii) specific contributions to the pilot project using funding outside of the budget, or (iii) building additional measures into field projects they are supporting already in the A'Vuong area, which will complement the objectives of the pilot – and can be assessed alongside other elements of the test of the guidelines or preparation of capacity building tools. Quang Nam Province clearly would have to be amenable to such arrangements.

To date the national stakeholder workshops for the TA confirm interest among international NGOs working in Vietnam to collaborate in fund-raising for the pilot. Otherwise, there is strong interest in becoming strategic partners offering technical advice on the use of revenue sharing funds in community-driven development approaches and other new advances in sustainable development like payment for ecological services – recognizing that a bottom up process is used to decide funding priorities through the grant application and award system.

The fact that communities will organize to apply for a grant is one of the guarantees that the process will be a bottom-up development process. This also sets the stage for specific provisions for transparency, social accountability and prevention of the abuse of power.

¹¹ During the TA a number of different alternatives for financing the pilot project were discussed. Possible contributions from other sources may include the Province, possibly EVN, interested donors and other strategic partners, including international NGOs and civil society. This can be done on a cost-recovery basis. Money can be reimbursed from the revenue sharing allocation that A'Vuong will receive once benefit-sharing legislation is in place. Alternatively, other hydropower projects could share the reimbursement costs. That would be justified because the pilot is in everyone's mutual interest – i.e. it informs and enhances the legislation to enable all provinces and affected communities to benefit.

During discussions about the pilot project all stakeholder interests agreed that transparent decision-making was essential.

Activity Schedule For the Pilot

Figure A3 illustrates the schedule for the Stage-1 and Stage 2 activities.

The up-front assumption is decisions regarding the Stage 1 financing and hiring of the local support team would take 3 months from the completion of this TA at the end of 2007. After that, Stage 1 is planned for a 14-month timeframe.

If donor financing for Stage 2 can be secured more quickly than one year, some Phase 2 activities could be advanced into 2008. Otherwise the Stage 2 budget would extend the BSM pilot project to 24-months, or more, as shown.

1. INTRODUCTION

1. The guidelines developed in ADB TA-4689 (VIE) are prepared in the form of a draft decree-law entitled, “Benefit sharing with communities adversely affected by hydropower projects in Viet Nam”. Pilot testing the guidelines is the next step in the process to establish consensus on the legal instruments needed to introduce mechanisms for benefit sharing on new and existing projects.

1.1 POLICY SETTING FOR INTRODUCING BENEFIT SHARING

2. As discussed in the TA Inception Report, Viet Nam has over 30 large hydropower projects in operation. There are also many small hydropower projects that would participate in benefit sharing, recognizing that small hydropower is defined as projects up to 30 MW in Viet Nam. The country’s hydropower potential is estimated to be about 20,600 MW. About 20% (4,200 MW) has been developed. Hydropower today accounts for close to 40% of the total installed capacity of the interconnected power system.

3. Electricity demand in Viet Nam has been growing at a rate of 13-15% per annum from a small base for the past several years. The country has over 80 million people. According to most forecasts, power demand will continue to grow at a steady pace in years to come due to rising domestic demand and accelerating industrial and export growth – even as demand management moderates the growth rate.

4. Current projections suggest that Viet Nam will add about 13,000 MW of new hydropower to the national grid system up to 2020.¹² Except for low levels of electrification in some of the remote, highland areas where many hydropower sites are located, overall electrification service ratios in Viet Nam are relatively high, as compared to the rest of the Mekong region. Government aims “to step up a program on electricity supply for rural and mountainous areas, targeting 90% and 100% of rural households supplied with electricity by 2010 and 2020, respectively”.¹³ In total, upwards of 60 potential new hydropower sites have been identified at various stages of study. Based on the national hydropower strategy, it is estimated that Vietnam needs to mobilize from \$1.5 billion to \$2 billion per year to finance new hydropower development in the balance of this decade, and beyond.¹⁴

Power sector reform context

5. Viet Nam has initiated a far-reaching reform of the power sector, reflected in the Electricity Law (2004) and other secondary legislation issued since 2004. The laws define the framework for three progressive stages of power industry restructuring, tariff reform and establishment of a competitive power market over a 20-year timeframe, namely:

Phase 1	(2005-2014)	Establishing a competitive generation market in stages
Phase 2	(2015-2022)	Establishing a competitive wholesale market in stages
Phase 3	(from 2022)	Establishing a competitive retail market

6. The market rules for competitive generation due to be introduced in 2009-10 will define the payment system for single buyers contracting supply from hydropower generators (in power purchase agreements) and a smaller portion of sales on spot markets. As mentioned, ideally the financing arrangements for revenue sharing would be captured in the rules introduced at that time.

7. Viet Nam’s broader power sector policy is based on principles of transparency, competition and sustainability. It aims to facilitate public and private sector investment in the sector, while

¹² The National Hydropower Plan (NHP) and Master Plan

¹³ In order of 33% as shown in the rapid appraisals due to the dispersed low-density settlement patterns

¹⁴ World Bank, Second Transmission and Distribution Project, PAD, 2005

ensuring the legitimate rights of electricity consumers and investors are safeguarded. In future, the state monopoly will be limited primarily to 3 aspects: (i) bulk transmission; (ii) national load dispatch, and (iii) strategically important large multi-purpose hydropower projects. Power distribution and non-strategic power generation will be gradually opened to ownership by private and public sector enterprises.

8. The restructuring of the electricity sector reflects the wider economic restructuring where market mechanisms are expected to play a much more prominent role in the management of the nation's economic affairs and drive to modernize the rural economy. Sole reliance on state budgets is not seen as feasible in a period of modernization and rapid industrialization.¹⁵ Revenue sharing is a market mechanism wholly consistent with the modernized resource management.

9. The Electricity Regulatory Authority of Viet Nam (ERAV) became functional in 2006. In the new institutional setup for the power sector ERAV has primary responsibility to advise government on the rules and mechanisms to establish competitive power markets and electricity tariff structures.¹⁶

Sustainable hydropower development

10. Sustainable development of the power sector is a key theme in the Electricity Law (2004). Sustainable development is legally defined in the Environment Law (2005), as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs, on the basis of a close and harmonized combination of economic growth, assurance of social advancement and environmental protection.¹⁷

11. As explained in Interim Report-1, primary legislation for environment and water resource protection in Viet Nam has been considerably strengthened in the past few years. Benefit sharing mechanisms not only compliment these new laws, but will also provide a practical way to bring them into practice. Many crosscutting resource, biodiversity and ecosystem management issues are linked to the impacts of hydropower projects that influence livelihoods and the welfare of rural people "hosting" the hydropower projects in their locality. Moreover, mitigation activities and other steps to manage the residual impacts frequently need local action.

12. Interim Reports 1 and 2 show how BSM directly complements Viet Nam's key social policies that give priority to development of the national minority groups and people living in areas of difficult or extremely difficult socio-economic conditions. People living in these locations often represent a high proportion of the population adversely affected by hydropower projects in Viet Nam (e.g. upwards of 60 to 70 percent people in the upstream catchment areas, in the immediate project area and traditional resource users downstream of facilities). Benefit sharing helps improve infrastructure and services targeted to the poor and ethnic minorities.

Stakeholder Interests

13. International experience shows that local benefit sharing is positive from all perspectives.

- Project-affected people and traditional resource users can become partners in the hydropower projects they effectively "host" in their local community and first among beneficiaries.
- From the government perspective, benefit sharing is a practical policy tool to close the growing income gap between rural communities adversely affected by hydropower projects and urban

¹⁵ As set out in the economic system Chapter in the 1992 Constitution, natural resource management is subject to socialist market mechanisms to invest in "stable and long lasting resource use".

¹⁶ Including the framework of rules spot market transactions and power purchase agreements with single buyers

¹⁷ Definition from Article 3 of the Law on Environmental Protection 52/2005/QH11, 2005

areas; and to better balance social, economic and environmental factors in the planning, design, implementation and operation of hydropower projects.

- From the hydropower operator perspective, benefit sharing increases capacity to work effectively with local communities in areas ranging from cooperation in land management measures to improve the operational life and performance of the reservoir, to cooperation with implementing environment mitigation measures prescribed by law. Revenue sharing can also provide the financial incentive for local actions that contribute to sustainable management of the watershed and headwater forests, and thereby help maintain performance levels and revenue flows from hydropower assets in the long term;
- From the perspective of potential investors, the presence of arrangements for long-term benefit sharing is an indicator that locally affected communities are likely to support the project – all things considered. As a consequence, the investor’s risk exposure is reduced and investors are more inclined to become financing partners.

14. The full policy rationale for benefit sharing is summarized in Appendix C of Volume 2

1.2 POLICY-ORIENTATION OF THE GUIDELINES

15. Three articles from the guidelines that sum-up the wider policy background for introducing mechanisms for benefit sharing are cited as follows.

Article 1: Scope of the regulation

1. *This Decree provides for equitable sharing of benefits arising from sustainable development of the nation’s hydropower resources.*
2. *This Decree establishes a long-term revenue sharing arrangement between the main consumers of electricity services in towns, cities and industry and the local communities hosting hydropower projects who are adversely affected by projects in their locality.*

Article 5: General principles of benefit sharing

1. *The establishment and application of benefit sharing mechanisms on hydropower projects shall be based on the following principles.*
 - *Ensuring people who permanently give up land or natural resource access for national investments in hydropower are first among the beneficiaries of hydropower projects;*
 - *Ensuring communities hosting hydropower projects in their locality become long-term partners in the sustainable management of the hydropower assets;*
 - *Ensuring local communities have access to financial support to take advantage of the new entrepreneurial opportunities created by the hydropower project and reservoir;*
 - *Ensuring financing mechanisms for payment of ecological services are available;*
 - *Ensuring a long-term view is taken on benefit sharing, recognizing that hydropower projects are long-life infrastructure that operate for many human generations and that priorities for balancing economic, social and environmental dimensions will change over time;*

-
- *Ensuring investments supported by revenue-sharing funds directly link to poverty alleviation objectives and targets and meet the evolving socio-economic and socio-cultural development needs of communities hosting hydropower projects;*¹⁸
 - *Ensuring investments made with revenue sharing funds reflect beneficiary preferences and are awarded on a grant-application basis using a bottom-up process;*
 - *Ensuring preparations for long-term benefit sharing start in early stages of planning and project design to help ensure (i) least-cost approaches to benefit sharing, and (ii) identify opportunities to built-in physical flexibility into hydropower projects to adjust to the priorities future generations living in the basin have for the operation of facilities;*
 - *Ensuring People’s Committees adopt clear policies to consider additional entitlements for adversely affected communities to enhance their natural resource access and take advantage of development opportunities created by the project; and*
 - *Ensuring mechanisms for revenue sharing are consistent with the competitive power market rules and electricity tariff reforms embodied in the Electricity Act 2004.*

Article 6: Forms of benefit sharing encouraged on hydropower projects

1. *As part of a comprehensive approach to sustainable hydropower development, the State shall encourage and create enabling conditions for three general forms of benefit sharing; namely:*

- i. ***Equitably sharing of electricity services:*** *where communities adversely affected by hydropower projects are among the first to receive the benefits of electricity services from the project or reliability of supply, subject to local preference and power safety limitations.*
- ii. ***Entitlements to enhance resource access:*** *where communities adversely affected by hydropower projects receive entitlements to enhance their access to natural resources (i) to offset the permanent loss or reduction of resource access from before the project, and (ii) to pursue new development opportunities created by the project.*
- iii. ***Revenue sharing:*** *where communities living in the project impact zone that permanently host the project are entitled to a share of the direct monetary benefits of hydropower generation, according to a formula and approach defined in regulations.*

2. *These mutually reinforcing forms of benefit sharing shall be a basis for optimizing the contribution of long-term benefit sharing to poverty reduction and local development for communities living in the project impact zone, as well as advancing the environment and social dimensions of sustainable hydropower development.”*

1.3 GENERAL METHODOLOGY

16. The guidelines propose that Provincial-level People's Committees (PPCs) will have primary authority over benefit sharing arrangements for projects in their respective jurisdictions, within the framework of national regulations.¹⁹ This includes responsibility for creating revenue sharing funds to receive remittances from power sales and systematic consideration of measures for equitable access to electricity services in respect to tariff policy and rural electrification investments under provincial jurisdiction. ERAV, on behalf of MOIT, has multiple responsibilities: e.g. to set the legal framework in place; to regulate the flow of remittances into project revenue-sharing funds; and to ensure a smooth roll-out of benefit sharing mechanisms across the country, once the legislation is in place.

¹⁸ Or a poverty reduction target established by Provincial People's Committees in conjunction with national bodies like the Ethnic Minorities Committee and the affected communities.

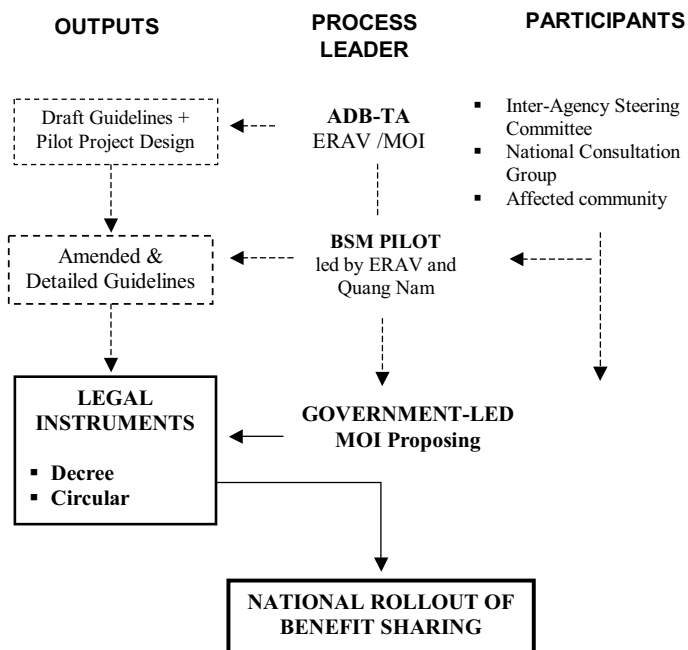
¹⁹ This is consistent with the approach taken in the Law of Environment Protection (2005) where provinces retain authority for establishing environment protection funds for production enterprises.

17. The pilot project largely focuses on testing and elaborating the mechanisms under the control of the Province. This is because other questions about the financing formulae for revenue sharing (i.e. as a percentage of gross generation) and the mechanisms to channel remittances into revenue-sharing funds under the new power market rules can be resolved separately. What is most important is to better understand how benefit-sharing mechanisms fit into the existing rural development framework and ground test the fund management arrangements including the procedures for the delivery of benefits and the associated accountability, transparency and monitoring aspects.

How does the BSM Pilot fit in the overall process to develop the legislation?

18. Figure 1 below illustrates how the Pilot fits into the overall process of developing necessary legal instruments for benefit sharing. In this figure the “process leader” refers to the ministry or agency leading the process at each stage. This process is set in the larger context of power market and power sector reform led by MOIT with ERAV providing support.

Figure 1: Overall process to develop the legislation and implement BSM



Five phases in the BSM Pilot

19. Table 1 illustrates 5 phases to launch and implement the pilot. The detailed implementation activities are presented in Section 3.

Table 1: Five phases of the Pilot	
Phase	Main Activity / Outcome
❑ Pre-Project phase	<ul style="list-style-type: none"> ▪ Initiate dialogue with strategic partners and donors ▪ Obtain approval for the Stage 1 budget ▪ Appoint the benefit sharing council ▪ Identify and hire the local support team
❑ Inception phase	<ul style="list-style-type: none"> ▪ Update the work plan based on available funds ▪ Agree on the priorities and schedule ▪ Conduct orientation training of key participants
❑ Preparing the Fund Charter	<ul style="list-style-type: none"> ▪ Prepare a draft Charter for the fund ▪ Solicit participants view on the Charter ▪ Seek provincial approval of the Charter ▪ Conduct on-job training
❑ Testing delivery mechanisms	<ol style="list-style-type: none"> 1. Electricity Access <ul style="list-style-type: none"> ▪ Evaluate and prepare recommendations to submit to the Province for consideration as per the guidelines 2. Resources Access Entitlements <ul style="list-style-type: none"> ▪ Evaluate and prepare recommendations to submit to the Province for consideration as per guidelines 3. Revenue Sharing <ul style="list-style-type: none"> ▪ Support the preparation of grant applications ▪ Evaluate and award grants ▪ Pilot Test the delivery mechanisms (one cycle) ▪ Evaluate the results
❑ Evaluation and Reporting	<ul style="list-style-type: none"> ▪ Prepare an Article-by-Article review of the guidelines plus the supporting Circular ▪ Review proposed amendments with stakeholders ▪ Prepare the final report and recommendations

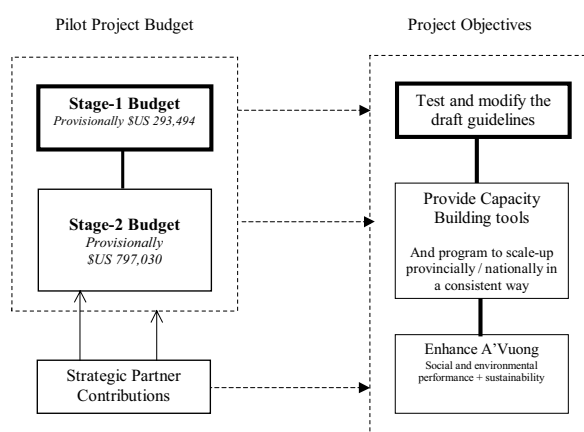
20. As illustrated in Figure 2, the 2-stage budget is proposed to address the three primary objectives of the pilot project.

Stage 1

As noted, Stage 1 is to provide the minimum activity on a least-cost basis primarily using Vietnamese professional capacities to put the guidelines into practice in the following manner:

- /1. Establishing a benefit sharing council and a temporary revenue sharing account;
- /2. Preparing a model fund Charter and other key instruments like the grant application forms to implement revenue sharing

Figure 2: Budget and Objectives



grants according to the guidelines, introducing modifications as appropriate;²⁰

- /3. Assessing and recommending measures for equitable sharing of electricity access and enhanced entitlements for natural resource access - which test the provisions in the guidelines and also responds to the views of the A'Vuong community when they review the draft guidelines;
- /4. Providing at least one-cycle of grant application and award using a nominal budget in Stage 1 to test the delivery and monitoring mechanisms for measures, as set out in the guidelines, and
- /5. Preparing an article-by-article review of the guidelines, make amendments based on the pilot and provide recommendation on finalizing the legal instruments to introduce benefit-sharing mechanisms nationally.

21. The guidelines have a chapter structure that is typical for a PMO or Government Decree.

- Chapter 1. General provisions
- Chapter 2. Process to introduce benefit-sharing mechanisms on hydropower projects
- Chapter 3. Equitable sharing of electricity access and services
- Chapter 4. Entitlements for enhancing resource access
- Chapter 5. Revenue sharing
- Chapter 6. General implementation provisions

22. This chapter structure will make it easier to transform the guidelines into a proposed decree after the pilot testing is completed. It is propose that a working group will be established for each Chapter, formed under the benefit sharing council or in the manner considered most appropriate by ERAV and the Province. The scope of work to field test the Articles in each Chapter is illustrated as follows.

Chapter 1: General Provisions

- The 6 Articles in Chapter 1 are not specifically implemented, rather they help to guide the pilot work and inform people of the objectives. These Articles need to be updated and revised based on digesting the views, lessons and experience of the pilot.

Articles in Chapter 1 include:

- | |
|---|
| Article 1: Scope of regulation |
| Article 2: Subject of application |
| Article 3: Definition of key terms |
| Article 4: Objectives of benefit sharing |
| Article 5: General principles of benefit sharing |
| Article 6: Forms of benefit sharing encouraged on hydropower projects |

- The support team will prepare suggested revisions to these Articles as part of the final pilot report, but they will also be reflected in the Fund Charter up-front.
- The views of the People's Committees at the three levels (provincial, district and commune), the beneficiaries and the National

Consultation Group would be sought and reflected, particularly their views on Articles 4 to 6.

- Consensus on the definitions in Article 3 is particularly important like the definition of adversely affected people and the project impact zone. The guidelines propose that all communes within the project impact zone as defined by the EIA is the starting point for establishing “eligible parties”. The definitions provided help to establish what groups of people are legally eligible to participate in benefit sharing programs.

²⁰ Other instruments include a model grant application form and community newsletters that would be appropriate to share with residents at each important stage of the process.

- It is important to note that during the TA work many different views were expressed on this particular question. Thus the pilot project needs to support consensus-reaching on any amendments proposed to the definitions in the guidelines that currently reflect best international practice and also recommendations such as provided by the World Commission on Dams and the guidelines provided by the Asian Development Bank and other development agencies such as the World Bank in their environmental and social safeguard policies.²¹
- Most important the views of local communities living in different areas of the project impact zones need to be reflected (see the results of the field surveys in Volume 3 of the TA Report).

Chapter 2: Process to introduce benefit sharing on hydropower projects

- The review of Articles in Chapter 2 needs input from ERAV and a process of further consultation with hydropower entities, especially EVN and representatives of independent power producers.
- This can be done using the working group for this chapter. The support team would reflect the outcome of those discussions in the modifications proposed to these Articles in the project report.
- Article 10 needs to be tested directly on A’Vuong (and implemented as far as possible) using the sector expert advisers that are provided in the pilot project budget.
- Views of the Vu Gia-Thu Bon basin river basin committee and MoNRE should be sought for amendments to Article 13, and also the related Section 5 Articles that discuss linkages to river basin organizations.

The Articles in Chapter 2 include:

- Article 7: Steps to factor benefit sharing into all stages of the project cycle
- Article 8: Procedures to adopt during strategic planning stages
- Article 9: Procedures to adopt during project planning and feasibility stages
- Article 10: Procedures to adopt during detailed project design and implementation stages
- Article 11: Procedures to adopt on existing hydropower projects
- Article 12: Fundamentals of arrangements for benefit sharing during operation phases
- Article 13: The role of river basin organizations in benefit sharing

Chapter 3: Equitable Sharing Of Electricity Access And Services

- The possibility of targeting people adversely affected by the A’Vuong project within the existing rural electrification program budgets for the province will be reviewed.
- Communities living in the A’Vuong project area expressed strong views on electricity access when interviewed. (See Appendix N in Volume 3). The field report indicated local communities want to see provisions in the guidelines reflected in the pilot project, including Article 17.
- Under the Stage-1 budget, a review will be made of the status of electricity supply to households located in the project impact zone. The benefit sharing council will subsequently

The Articles in Chapter 3 include:

- Article 14: Costs for electrification of resettlement communities in project capital budgets
- Article 15: Targeting communities living in the project impact zone with rural electrification funds
- Article 16: Off-grid supply in areas uneconomical to connect to the grid
- Article 17: Additional measures to enhance electricity access for the poorest households
- Article 18: Organization for implementation of equitable electricity access at state and provincial levels

²¹ The different points of view are set out in the minutes of the SC meetings and in the Interim TA Reports

make a recommendation to provincial authorities, responsible for setting priorities for rural electrification, which includes DOIT.

- Otherwise, the views of DOIT and EVN will be solicited on this Chapter.

Chapter 4 Entitlements For Enhancing Resource Access

All Articles in this Chapter will be considered and tested for relevance on the A’Vuong pilot project. The measures are either low cost i.e. they involve approvals or permissions), which fall

Articles in Chapter 3 include:

- Article 19: Types of measures for enhancing resource access and livelihood opportunity
- Article 20: Procedures to identify local preferences for additional entitlements
- Article 21: Provincial level support to granting entitlements to enhance resource access and livelihood opportunity

within the authority of People's Committee's at various levels. Resource access measures like forest access and permits for aquaculture were important to people interviewed in the rapid appraisals.

- The benefit sharing council will be asked to review requests received by participants.
- The process to assess local

interest in entitlements will include focus groups and other surveys of the beneficiaries, starting with the rapid appraisal and the field assessments undertaken during the TA.

- Time is allotted in the budgets for support team members and expert advisers for analysis, survey, or field study if needed to evaluate the benefit-cost and other implications of awarding additional resource access entitlements.
- What is important is (i) to systematically reconfirm the local interest in entitlements and document the procedure for evaluating that interest (ii) to assess the value that entitlements can potentially have in terms of empowering people for local action and livelihood improvement, and (iii) look at how the interests can be met through permissions within the authority of People's Committees at various levels.
- Apart from the benefit sharing council passing these results to the appropriate provincial authorities with recommendations for follow-up action, the results would also be set out as model procedures in the Circular.

Chapter 5 Revenue sharing

Testing and revising the Articles that deal with revenue sharing mechanisms is the largest single aspect of the pilot project. The five sections in Chapter 5 are discussed below.

Section 1: Measures

- Article 22 identifies the types of measures that could be supported by revenue-sharing grants.

Articles in Chapter 5-1 include:

- Article 22: Types of measures supported by revenue sharing

The various categories of eligible expenditures set out in the guidelines will be discussed with the benefit sharing council and target beneficiary groups, and recommendations for modification

of the list prepared as part of the pilot project recommendations.

- The list of eligible expenditures for the pilot itself will be finalized keeping in mind the available budget. Therefore for the Stage 1 budget (which is provisionally \$60,000 VND equivalent) the measures supported will be narrower than the guidelines would permit.

- Further measures can be financed from the Stage-2 budget, the level of which will depend on the donor grant contribution and alternative sources as discussed in the financing plan (\$240,000 equivalent is proposed in the Stage 2 budget.)

Section 2: Financing mechanisms for revenue sharing

- These articles refer to the mechanisms to calculate and remit money to the revenue-sharing fund for hydropower projects.

Articles in Chapter 5-2 include:

- Article 23: Establishment of a central reserve fund by the electricity regulator (ERAV)
- Article 24: Establishment of project-specific revenue sharing funds
- Article 25: Mechanisms for payments into revenue sharing funds
- Article 25: Financing formula for calculating payments into revenue sharing funds

- For the pilot project a revenue-sharing account would be established to test the administration procedures for control and disbursement of funds.
- The specifics of the other articles need to be decided by ERAV in consultation with

Steering Committee members and MOIT. These mechanisms need to be consistent with the power market rules currently under development. The concerned departments within ERAV like the tariff department must be consulted in this assessment.

- It is also proposed that ERAV will use its power market consultants (separately from the pilot project budget) to play a central role in assessing the combined impact on electricity tariffs of (i) revenue-sharing (ii) water resource utilization fees (iii) environment protection obligations, which may be incorporated in the new environment Tax Law expected in 2008.

Section 3: Benefit sharing councils and fund Charters

The key aspect is to test arrangements for the establishment and functioning of the benefit sharing council.

- Article 27 specifies the composition of the council, but leaves flexibility for the provinces to add people as needed.

Articles in Chapter 5-3 include:

- Article 26: Functions and duties of the benefit sharing councils
- Article 27: Composition of benefit sharing councils
- Article 28: Preparation and contents of the fund Charter and annual reports

- The composition for the pilot project will be adjusted according to provincial views of the representation required for the A'Vuong Project
- ERAV may also make proposals for the composition

of the council to reflect the pilot project needs.

- The support team will provide training for the council members on their functions and duties (Article 26) with the initial aim of preparing the draft charter (Article 28).
- As required by the guidelines, the Charter will be developed in a collaborative manner with the affected communities and advance to the Provincial Vice Chairman for approval, as provided in Article 28.

Section 4: Principles and Procedures of Fund Administration

These Articles will test the operation and administrative procedures for the Fund.

- An initial consideration (Article 30) is to establish consensus on the formula to allocate available funds for grant applications in different areas of the project impact zone.²² The formula (e.g. a formula based on the number of households or people in communes in the project impact zone) will be tested.
- The procedure for award of grants and the application of criteria set out in the Charter will test the criteria set out in the Charter.
- Alternative delivery mechanism will then be tested for successful grant applications.
- Here the guidelines provide that revenue sharing grants can be awarded to mass organizations to deliver measures to groups of people, or can be channeled through existing targeted programs as budget increments to these programs.
- There can be micro credit facilities and ideally a micro-credit arrangement would be tested in the pilot. For example, a group of people such as a farming group in a particular commune that wants to establish a micro-credit facility can approach the farmers Union, or another appropriate mass organization to apply for a grant on their behalf. The mass organization receiving the grant (if the application is successful) would use the grant to capitalize a micro credit facility. The mass organization would then be responsible for operating the micro facility and reporting to the benefit sharing council on the effective use of the grant (including administration, evaluation and audit responsibilities). These costs would be incorporated in the grant.
- That way an overly complex benefit sharing council is avoided and local capacity is strengthened.
- The pilot test needs to identify standard procedures for monitoring and evaluation of the grants.

Articles in Chapter 5-4 include:	
Article 29:	Determination of parties eligible to apply for revenue sharing grants
Article 30:	Principles for allocating revenue sharing among communes in the project impact zone
Article 31:	Principles for administration of grants
Article 32:	Fund administration costs and anti-corruption measures
Article 33:	Criteria for determining successful grant applications
Article 34:	Delivery mechanisms for measures supported by revenue-sharing funds

Section 5: Other Considerations

Some Articles in this section are not relevant to the A’Vuong situation.

- For these provisions it is recommended that a working group drawing representatives of DONRE, DARD, DOIT as appropriate and the River basin committee be formed to comment on each of these provisions.

Articles in Chapter 5-4 include:	
Article 36:	Projects on inter-provincial rivers or affecting more than one Province
Article 37:	Harmonizing with planning for local infrastructure investment and rural development extension services
Article 38:	Harmonization of benefit sharing funds with project-specific funds for water resources and environment protection

- The project support team would function as the Secretariat to record discussions and reflect those in the recommendations contained in the final pilot project report.
- Additionally, these provisions would be reviewed in sessions

²² (E.g. including the upstream areas, the communities that border the new reservoir, the resettlement communities and host communities, people living in the area immediately around the major project facilities and the communes that are downstream of the project facilities both in the dewatering zone below the dam and further beyond the powerhouse).

with the benefit sharing council to ensure views from the commune and district level representatives are reflected.

- An important aspect for the benefit sharing council to consider Article 47, concerning harmonization of the investments supported by benefit sharing with planning for local infrastructure investment and rural development extension services.

Chapter 6 General implementation provisions

- These articles will be discussed with the concerned organization, toward the end of Stage 1 work. The project support team will carry out structured interviews with the organizations indicated.

Articles in Chapter 5-4 include:

- Article 39: Implementation roles of ministries and organizations at the state level
- Article 40: Responsibilities of People’s Committees at all levels
- Article 41: Responsibilities of provincial-level services, departments and branches
- Article 42: Responsibilities of hydropower entities

- The benefit sharing council will consider the feedback on each of the Articles, and focus especially on Articles 40 and 41, which concern the implementation responsibilities of Peoples’ Committees at all levels.

- ERAV with DOIT would be consulted in the review of Articles 39 and 42, with the support team providing secretarial support to reflect the outcome of discussions in the final pilot project report
- In addition to organizing the review of the Articles in this Section the support team will reflect the findings in the Circular.

Stage 2 Activities

23. The Stage-2 budget provides for more in-depth testing of the delivery mechanisms and the preparation of capacity building tools. As noted:

Stage 2 budget: A larger budget building on Stage 1 activities to:

- /1. Field test a wider range of grant awards from the revenue sharing account, in perhaps two or more cycles and extend the pilot project timeframe from 14 to 24 months, or slightly more;
- /2. Assess in more detail the development effectiveness of benefit sharing measures adopted by participants in the pilot project and the linkages to poverty reduction targets;
- /3. Develop a more comprehensive set of capacity building tools based on the pilot, as well as relevant international experience, to facilitate rapid and smooth startup of benefit sharing on other hydropower projects in Viet Nam;²³
- /4. Enable ERAV to draw on regional and international expertise in preparing the legislation and capacity building tools and a scaling-up program; and
- /5. Concretely enhance the environment and management components of the A’Vuong project with a larger allocation to revenue sharing grants.

²³ Including operation manuals and training manuals that can be used on other projects in Viet Nam once the legislation is introduced.

24. The Stage 2 budget provides for a higher level of assistance from regional and international advisers who have expertise with benefit sharing mechanisms and also with the various world development program activities that are part of the delivery mechanisms.

1.4 EXPECTED OUTPUTS

25. The following are the list of expected outputs from the pilot project. The list will be adjusted and finalized in the inception stage report.

1. Inception stage report
2. A model charter for a Fund and grant application forms
3. Modified Guidelines: Article-by-Article and a full draft of the Circular
4. Capacity building and training tools
5. The final report and recommendations

26. These outputs are designed to enable preparation of the formal decree and supporting circular to feed the formal government process.

2. ADVANCE PREPARATION STEPS

27. Several up-front arrangements are needed to ensure the successful implementation of the pilot project. Among these are:

- i. Contacting donors (for Stages 1 and 2 grant financing)
- ii. Finalizing Stage 1 financing arrangements
- iii. Confirming governance arrangements for the pilot
- iv. Appointing the benefit sharing council
- v. Arranging the project support team
- vi. Confirming arrangements with the strategic partners

2.1 CONTACTING DONORS (FOR STAGE 1 AND 2 GRANT FINANCING)

28. Approaches to the donors are required initially for the Stage 1 budget of \$US 233,000. Ideally those funds would be available by the second quarter of 2008. A second approach is required, for the larger amount for Stage 2 financing. Ideally that would be available in the first quarter of 2009. ADB and ERAV will coordinate the initial discussions on the sources of finance.

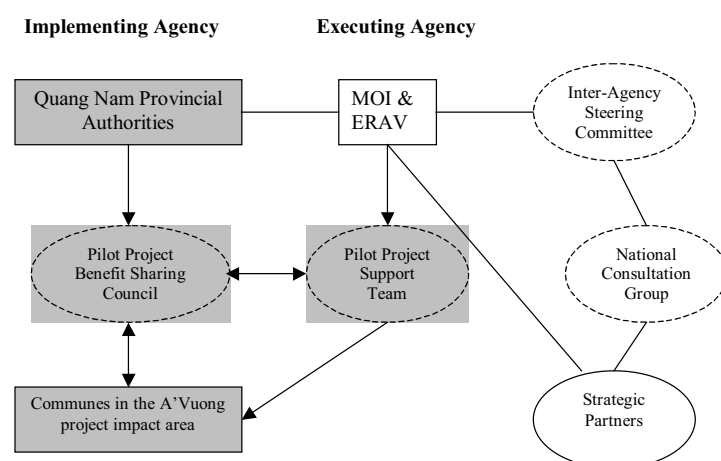
2.2 FINALIZING STAGE 1 FINANCING ARRANGEMENTS

29. In parallel with discussions with donor partners, ERAV will seek government approval of a counterpart budget. Typically the formal submission will be made once donor contributions are identified.

2.3 CONFIRMING THE GOVERNANCE ARRANGEMENTS

30. Governance arrangements for the pilot project are proposed as illustrated in Figure 3 from the summary. ERAV will confirm the governance arrangements with Quang Nam Province when the donor grant financing and government counterpart budget are put in place.

Figure 3: Governance / Institutional Arrangements



31. The main governance responsibilities are illustrated in Table 2.

Quang Nam Province	ERAV on behalf of MOIT	Inter-Agency Steering Committee
<ul style="list-style-type: none"> ▪ Overall responsibility for implementing the test of benefit sharing mechanisms on the A’Vuong project ▪ Appointment of the pilot project benefit sharing council ▪ Providing provincial views of how the pilot project results can be translated to national legal instruments ▪ Responsibility to decide on measures to improve electricity access and entitlements for enhancing resource access, as identified by the benefit sharing council ▪ responsibility for the enhancement to the environment and social components of A’Vuong 	<ul style="list-style-type: none"> ▪ Overall responsibility for the setup and design of the pilot project ▪ Contracting and supervision of the local project support team ▪ Guidance/supervision of the international consults ▪ Coordination with the Steering Committee, national consultation group and strategic partners ▪ Decisions on translation of the pilot project results into legal instruments (a decree and circular) 	<ul style="list-style-type: none"> ▪ Advising on the pilot project implementation, in particular aspects that involve other ministries and agencies under their jurisdiction ▪ Advising on the update of the guidelines ▪ Advising on the translation of guidelines into formally legal instruments that involve other ministries and agencies under their jurisdiction

32. Other organizational arrangements for the pilot include:

- **Benefit sharing council**²⁴ - would be responsible for implementation of the pilot project using procedures, or modifying procedures (as needed) that are set out in the guidelines. The council reports to the Quang Nam PPC.
- **Support Team** - providing technical support to the benefit sharing council, providing training for project participants like the commune level coaches, performing backstopping activities and assuming lead responsibility for the preparation of the project reports and outputs.
- **National consultation Group** - this is a continuance of the national consultation group for the TA which enables national bodies including civil society and international NGOs to provide value-added comment and contributions to work in progress.
- **Strategic Partners** - includes EVN, donors, international NGOs and other private-sector groups interested in supporting the pilot project and its objectives in promoting sustainable hydropower development through direct or indirect financial and technical contributions to the pilot project.

²⁴ For the pilot project, the benefit sharing council might be called the benefit sharing committee.

33. Once the funding is secured and before commencement of the pilot project ERAV and Quang Nam province would confirm the governance arrangements. Likely this needs to be reflected in the proposal to government for the counterpart funds.

2.4 APPOINTING THE BENEFIT SHARING COUNCIL

34. Quang Nam will appoint the benefit sharing council for the pilot. This council should have the same authorities as provided by the guidelines.

35. The starting point for deciding the composition will be Article 27 stipulating the functions, duties and composition of the benefit sharing council, as noted below:

1. The benefit sharing council shall have a People's Committee leader as its chairman and the following members:

- /1. A finance agency's representative as vice-chairman;*
- /2. A representative of the ethnic minorities commission;*
- /3. An industry and a natural resources and environment agency's representative as members;*
- /4. A representative of the project management board of the hydropower project;*
- /5. A representative of each commune-level People's Committee in the project impact area where eligible parties live or work;*
- /6. One or two representatives of households from the eligible communes;*
- /7. A representative of the river basin organization or committee established in the basin the project is located;*
- /8. Representatives of provincial departments as deemed appropriate by the Provincial People's Committee chairman.*

2. ERAV and MoNRE representatives will be appointed to the benefit sharing council for projects on inter-provincial rivers and other projects where ERAV and MoNRE wish to be directly represented on the council."

2.5 ARRANGING THE SUPPORT TEAM

36. ERAV would identify and hire a local support team for the main TA work. This may be a university group or local consultant. The budget provides for the following local support team members:

1. A senior support team coordinator
2. A training coordinator
3. An accountant / monitor

Provision is also made for hiring the following human resources for the Stage 1 and Stage 2 work.

Expert Roster or Panel

A local expert roster will be formed with advisers in the following fields:

-
1. Environment Expert
 2. Social Expert
 3. Forestry Expert
 4. Fisheries Expert
 5. Power Systems Expert
 6. Renewable Energy Expert
 7. Communications Expert

These experts could either be provincially based, based in Hanoi or national. Their main task will be to provide specialist expertise in support of assessments needed to implement the benefit-sharing program. This will include for example, the assessments needed for Chapter 2 and 3 assessments and recommendations concerning electricity access and enhancing resource access entitlements, where some analysis of the current situation is required by an independent expert.

A budget of approximately 2 weeks inclusive of travel is provided for each advisory position. The support team with approval from ERAV (and as set out in the inception report) would adjust the allocation between the different advisers on the basis of needs.

Commune Coaches

Hiring of locally based coaches for each commune participating in the pilot project. These coaches have specific roles to assist beneficiaries (i) in the preparation of grant applications (ii) advising as required on the implementation of measures supported by the grant (iii) participating in and facilitating the evaluation of the effectiveness of the grants (iv) providing other support team members with feedback on the potential modifications to the existing guidelines and specifically the information required for the Circular. The commune coaches would receive training for all their support activities.

International Experts

In Stage 1 arrangements to engage an international expert experienced with benefit sharing in the power sector and a regional expert with a specialty in rural development are needed, consistent with provisions of Donors or ADB TA arrangements.

The international expert on benefit sharing would primarily support ERAV. This expert would function mainly on the design and framework of the pilot project, linkage to the power sector reforms and the program for capacity building tools to support the national rollout program. The rural development expert would primarily work with the support team and benefit sharing council on the implementation aspects of the benefit sharing mechanisms.

Stage 2 provides for extension of the services for the two experts in Stage 1. In addition to the two positions identified above, provision is made for additional expertise to assist with development of the capacity building tools and specifically a monitoring and evaluation expert and a governance expert to help introduce the transparency and ethical corruption provisions using techniques that are currently available today.

37. Other steps that need to be taken to put in place the institutional arrangements for the pilot project include reconstitution of the National consultation group, possibly to include additional representatives from Quang Nam province.

2.6 COORDINATING WITH STRATEGIC PARTNERS

38. Discussions need to take place with potential strategic partners concerning possible modes for strategic partners to participate in the pilot project. ERAV will coordinate the initial discussions with strategic partners with advice from the ADB. The Provincial People's committee representatives may also participate in these discussions, and in particular, extend an invitation to those donors and international NGOs already working in Quang Nam Province and the A'Vuong project area

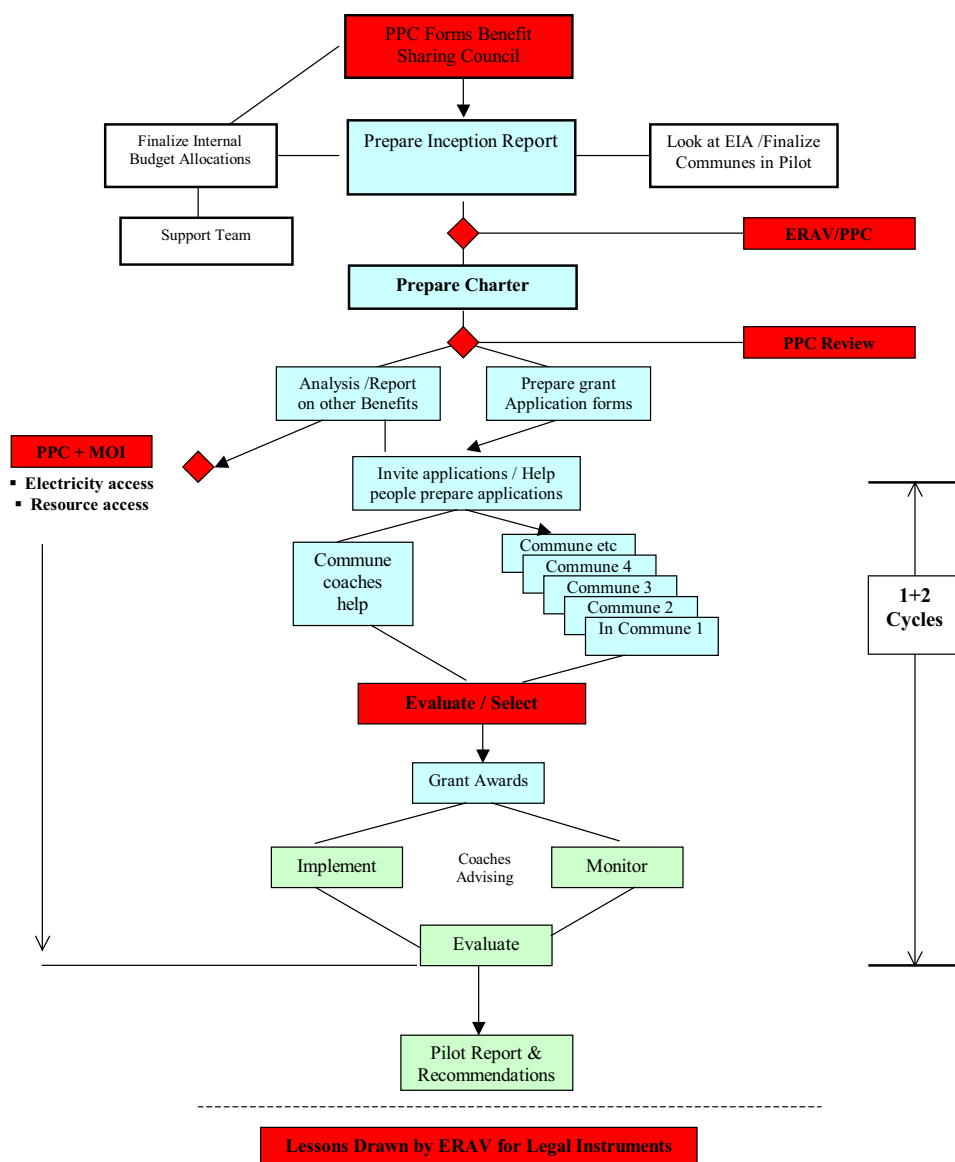
39. Formal approaches to the national committees of international NGOs operating in Viet Nam may be considered, not only for fundraising but also to increase awareness of the pilot project activity and its objectives. Additional strategic partners will be needed when the national program is rolled out. There is considerable scope for potentially involving NGOs supporting rural development initiatives in different provinces where hydropower projects are located.

3. IMPLEMENTATION

1.1 PROJECT FRAMEWORK

40. Figure 4 provides a schematic illustration of the major steps in the pilot project, which was presented to the TA Steering Committee and the 3rd National Consultation workshop. The decision milestones are indicated in the shaded boxes.

Figure 4: Schematic Framework

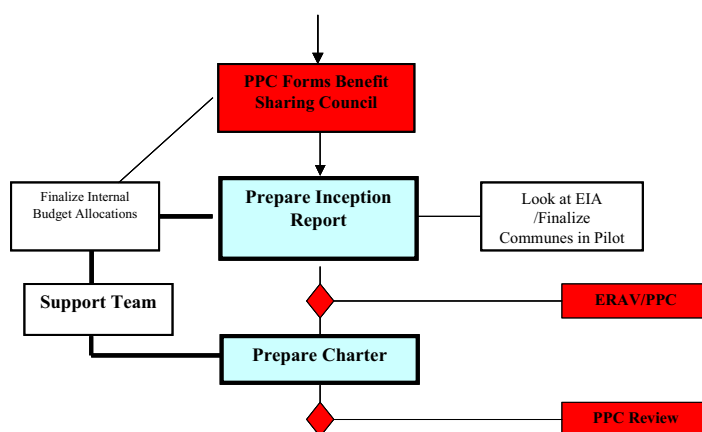


1.2 INCEPTION REPORT

41. Once the support team is in place, the coordinator of the local support team will prepare the inception report. This report will take into account the available budget, the activity framework and tasks set out in this work plan (including other supporting material with ERAV, like the detailed budget spreadsheets). The benefit sharing council will ensure there is adequate and full consultation in the local communities in preparing the inception report.

42. Based on the discussions and the subsequent workshop with the national consultation group the inception report will be submitted to ERAV and the Steering Committee for final consideration in consultation with Quang Nam Province. Figure 5 illustrates the inception stage activities, where the shaded triangle indicates ERAV/PPC consideration of the inception report.

Figure 5: Inception Stage



1.3 ACTIVITIES AND TASKS

43. The pilot project is organized around seven primary activities that provide a practical basis to test the guidelines in the way that provincial authorities would operationalize them and maximize knowledge sharing and consensus building. These seven activities include:

1. People's Committees work
2. Benefit sharing council work
3. Grant program
4. Knowledge sharing & capacity building
5. Project team support, training and reports
6. Monitoring, audit, evaluation & social accountability
7. Steering committee and national workshop logistics

44. Stage 1 activities are illustrated as follows.

Activity 1: Peoples Committee's work

45. This activity includes coordination actions taken by People's Committees at the provincial, district and commune levels to implement the benefit sharing mechanisms on a pilot basis. The sub-activities or tasks and the schedule are illustrated in the following graphic.

		Month into Project																							
		M1	M2	M3	M4	M5	M6	M7	M8	M8	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24
1. PEOPLES COMMITTEES WORK		inc >																							
	1.1 Meetings, Direction and Supervision																								
	Provincial-Level																								
	District Level Commune-Level																								
1.2 Awareness and Procedures Training	Provincial-Level																								
	District Level																								
	Commune-Level																								
1.3 Knowledge Sharing	Information dissemination																								
	Stakeholder Dialogue and Exchanges																								

46. In task 1.1 Peoples Committees at each level would be responsible for decisions and actions cited in the guidelines that are relevant to them – as set out in Article 40: Responsibilities of People’s Committees at all levels. For example, the PPC would initially appoint the benefit sharing council and establish a revenue-sharing account for the project. The next major step for the PPC would be to consider the draft charter for the Fund submitted by the benefit sharing council.

47. Associated with those responsibilities, are decisions, such as: confirmation of the communes eligible to participate in the pilot project; agreement on the definitions of eligible parties; and, agreement on procedures for evaluating, awarding and monitoring the implementation of measures reported by revenue-sharing funds. The provincial-level People's Committees views on these issues will be vital to revisions to the guidelines.

48. Representatives of the District and Commune Peoples Committees appointed to the benefit sharing council would be responsible for:

- Representing the district and communes interests in the deliberations of council
- Ensuring information is available to people in their respective commune
- Ensuring the necessary coordination at the district or commune level to implement the benefit sharing measures

49. To coordinate these actions, the project support team will be responsible to put in place a tracking system to identify and inform Peoples Committees of what is expected of them in terms of decisions, information dissemination and consideration of proposals as well as their coordination of the concerned provincial departments who may be involved in the delivery of benefits.

50. In Stage 2 resources are provided to support information dissemination and stakeholder dialogue exchanges in the A’Vuong area. Budget is also provided for the Quang Nam Province to host other Provinces that have hydropower projects in a workshop to share their experience with the pilot (the budget provision is in activity 3). This provincial workshop will provide an important input to development of the capacity building tools to rollout program and nationally.

Activity 2: Benefit sharing council work

51. The benefit sharing council has responsibility for undertaking all the duties that are set out in the guidelines. The support team will act as the Secretariat for the benefit sharing council to provide drafts of the materials for discussion in sessions held by the council.

	Month into Project																							
	M1	M2	M3	M4	M5	M6	M7	M8	M8	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24
2. BENEFIT SHARING COUNCIL WORK															inc >									
2.1 Duties in Guidelines																								
2.2 On-Job Training of Council Members																								
Applying the Guidelines																								
Fund Charter content and preparation																								
Grant Application, evaluation and award																								
Implementation and M&E																								
Guideline and Charter Revisions																								
Training Needs of Others																								

52. The work of the council is designed around seminars, briefings and on-job training. The support team will act as the Secretariat for the council to provide drafts of materials for discussion in sessions held by the council. And as previously mentioned, under the benefit sharing council working groups may be established for each of the six chapters in the guidelines.

Activity 3: Grant program

53. The following graphic illustrates the time frame anticipated for the award of the small grants. As noted it is anticipated that \$60,000 equivalent (minimally) would be available for grant awards in Stage 1. Only one cycle would be feasible. It is expected that invitation of grant applications would start in month five and awards would start in month seven. The evaluations would be completed in months 12 and 13 and feed into the final report in month 14.

	Month into Project																							
	M1	M2	M3	M4	M5	M6	M7	M8	M8	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24
3. GRANT PROGRAM																								
3.1 Grants to Eligible Parties in Communes																								
Cycle 1 (steps of application, award, implementation and evaluation)																								
Cycle 2																								
Cycle 3																								

54. As the accompanying figures show there will be continuous evaluation and monitoring as the grants are implemented and the results will feedback into the review of the guidelines (Articles).

55. Figure 6 illustrates the involvement of the commune coaches assisting communities in preparing the grant applications. Figure 7 illustrates the assistance coaches give during the implementation of the grants.

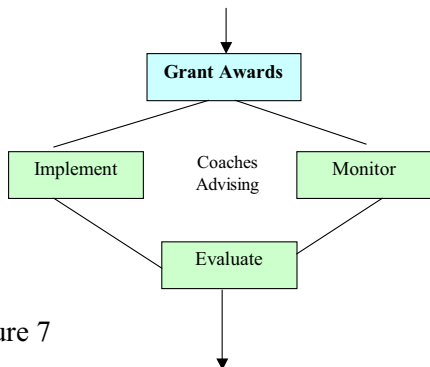


Figure 7

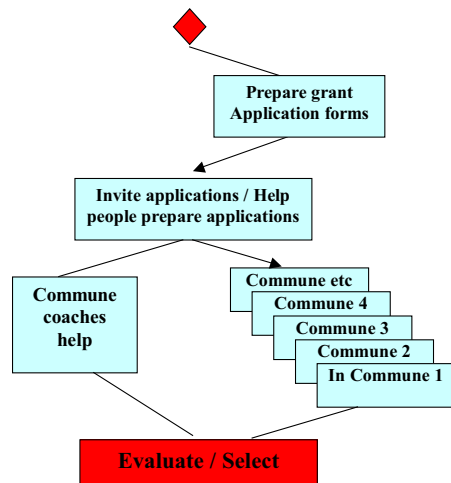
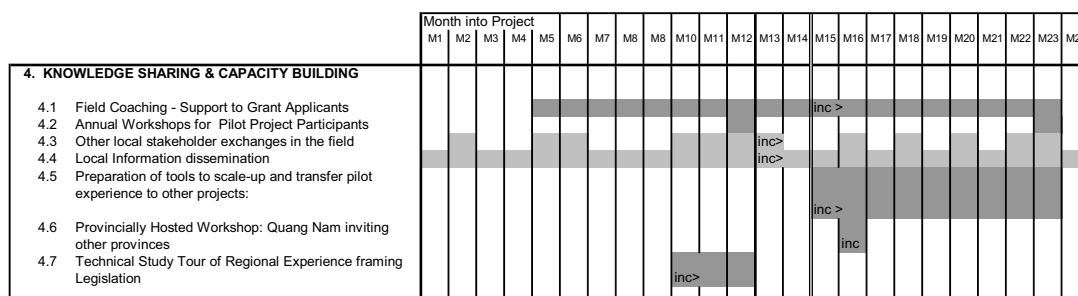


Figure 6

Activity 4: Knowledge sharing & capacity building

56. In Stage 1 this activity area provides the information dissemination, seminars and workshops needed to ensure the experiences with benefit sharing mechanisms are exchanged among the participants through the project area. This will help to maximize shared learning. Task 4.2 for example includes a workshop for representatives from different areas of the A'Vuong project participating in the pilot project.



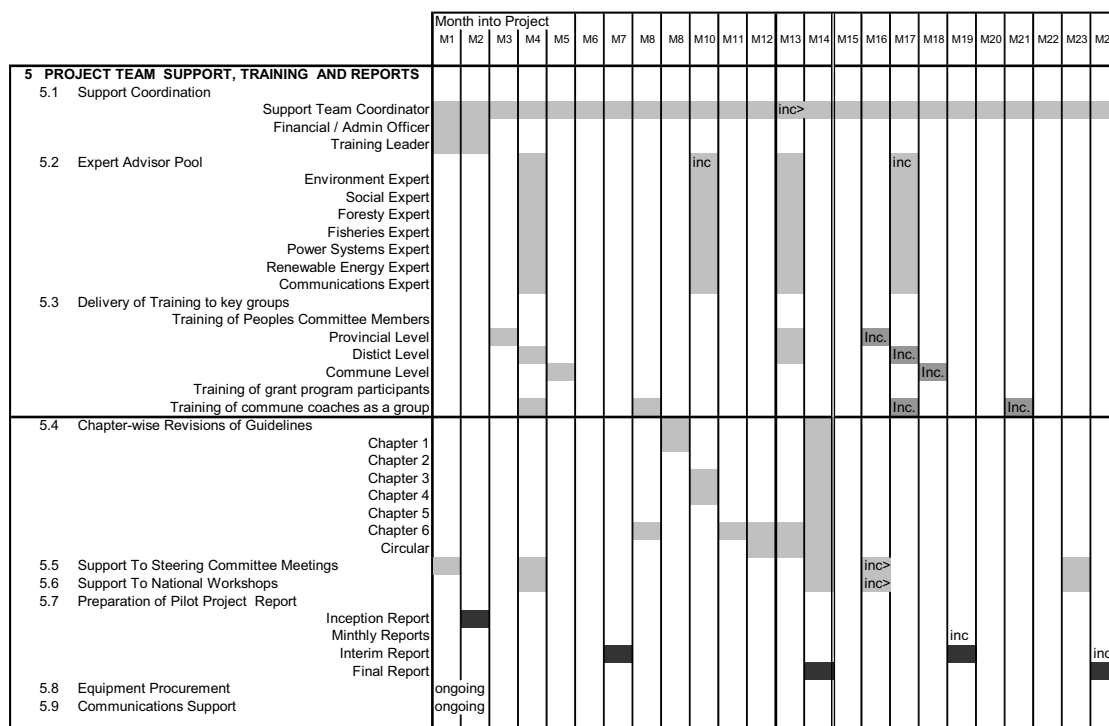
57. In Stage 2 additional resources are provided for workshops and seminars around (i) preparation of the capacity building tools (i) the provincially hosted workshop (as mentioned previously) that will be led by the Quang Nam Province and (iii) to provide for a tactical study tour of regional experience with benefit sharing legislation and implementation in neighboring countries and the region. Funds are also provided to enable a mature benefit-sharing program, such as the Columbia basin trust in Western Canada to host a visit and share their experiences. Details of the Columbia basin trust and others are provided in the resource materials with ERAV and noted in Appendix 3.

58. One example of a regional technical exchange that would be highly relevant is to share experiences with India. Recently as part of its new hydropower development policy India announced plans to establish a benefit sharing policy for hydropower projects in all States.²⁵ The approach reportedly is to establish a local area development fund for adversely affected communities. This fund will receive the equivalent of 2% of project revenues. A multi-stakeholder committee headed by a government official and comprise of local community representatives will manage the fund. The exchange of views on the approach India is taking, for example, would be one of the regional study tours arranged.

Activity 5: Project team support, training and reports

59. The tasks for the local support team are illustrated in the accompanying figure, which shows the schedule for both stages of the pilot. The support team coordinator activities (5.1) will be for the full duration of the pilot project. The local expert advisers (task 5.2) will be deployed for specific tasks. The schedule for the deployment of the local expert advisers will be specified in the inception report.

²⁵ Times of India, October, 2007

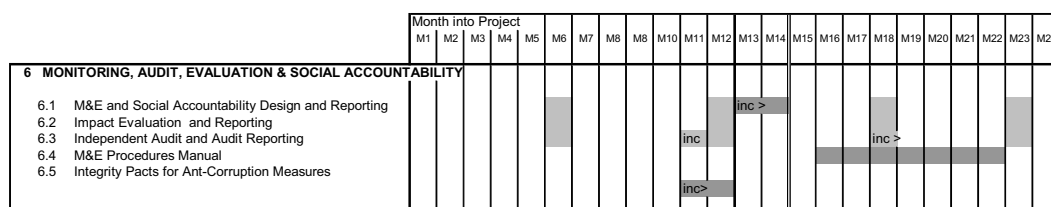


60. The chapter-wise revisions of the guidelines (task 5.4) would take place in stages starting in months 7 and will be completed by month 14. In addition to the monthly reports, Task 5.7 shows the timing of the various project reports including the inception report, interim and final reports.

Activity 6: Monitoring, audit, evaluation & social accountability

61. The project support team is responsible to oversee the monitoring and evaluation reports in Stage 1. The international expert for road development will provide guidance in Stage 1. In stage 2 provision is made for international M&E experts to enhance the support for the M&E functions.

62. In Stage 1, task 6.1 is a report on the design of the monitoring and evaluation arrangements for the implementation of the revenue-sharing grants. Task 6.2 will evaluate the effectiveness of the delivery arrangements. Task 6.3 will provide an audit of the expenditures on revenue sharing grants and make recommendations regarding standardized audits that can be reflected in the circular.

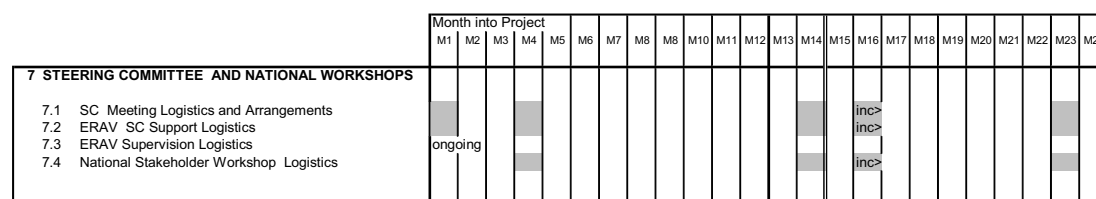


63. In Stage 2 the M&E activities will be repeated for subsequent cycles of the grant awards. In addition there will be substantial work in preparing procedures manuals and also preparing anticorruption measures to build into the benefit sharing mechanisms and specifically in the management of the revenue-sharing fund. The international experts will lead these tasks and resources

are provided for additional local experts who would be trained to provide advice also for other projects in future.

Activity 7: Steering committee and national workshop logistics

64. The final activity area consists of support for the Steering Committee (task 7.1) and the National workshop group (task 7.4). In addition tasks 7.2 and 7.3 provide for ERAV to form the steering committee and overall supervision of the pilot project, respectively.



65. As indicated in the graphic, the Steering Committees will meet at critical decision milestones in the project. In addition, provision is made for Steering Committee members to be available to sit with the benefit sharing council, as required, for critical meetings and for critical working group discussions.

66. Two national workshops proposed for stage 1, the first to comment on the draft Inception Report and the second to comment on the draft report when the revisions to the guidelines and the circular are provided. Two additional national consultation workshops will provide feedback on the enhanced capacity building tools and steps to rollout the national program. These are particularly important to maximize interest and collaboration for work in the different provinces.

1.4 MONITORING FRAMEWORK

67. The monitoring framework has two levels (1) for monitoring the overall pilot project itself and (2) for monitoring the implementation of the revenue-sharing grants.

Project monitoring framework

68. The monitoring framework for the pilot project will support the evaluation of the expenditure of donor grant funds and the counterpart budget. The approach is illustrated in Table 3.

Benefit sharing mechanism monitoring

The monitoring and evaluation framework for implementation of the benefit sharing mechanisms will be set out in the M&E designed for the project undertaken in activity three discussed previously. The fundamentals include:

- Collaborative development of a fund Charter that sets out all decision criteria transparently
- Auditing of the revenue-sharing account
- Adoption of social accountability procedures with transparent procedures to publish all grant applications and awards
- Monitoring procedures with progress reporting on implementation of grants
- Budget tracking procedures

Table 3: project monitoring and evaluation framework			
Design summary	Performance Targets /Indicators	Information sources/ Reporting milestones	Assumptions and risks
Impact <ul style="list-style-type: none"> Benefit sharing mechanisms on hydropower projects in Vietnam 	<ul style="list-style-type: none"> Effective engagement of local communities Benefit sharing extended to all adversely affected groups 	<ul style="list-style-type: none"> Progress reports Field data on participation levels 	Assumptions <ul style="list-style-type: none"> Government to provide resources for counterpart budget Provincial partners to implement pilot project
Outcome <ul style="list-style-type: none"> Field-tested guidelines as basis for legislation Capacity building tools for national program rollout 	<ul style="list-style-type: none"> ERAV and Quang Nam province agree on results Steering committee endorsement of results Assessment of degree of consensus achieved 	<ul style="list-style-type: none"> Steering committee and national workshops Assessment of degree of consensus 	Assumptions <ul style="list-style-type: none"> Effective cooperation of stakeholders Risk <ul style="list-style-type: none"> Controversy over how revenue-sharing funds are allocated Inability of government to follow through with legislation
Outputs <ul style="list-style-type: none"> Field-tested guidelines as basis for legislation Capacity building tools for national program rollout 	<ul style="list-style-type: none"> Stage 1 report in 14 months Stage 2 report in 24 months 	<ul style="list-style-type: none"> Project reports Recommendations to government 	Assumptions <ul style="list-style-type: none"> Good performance of benefit sharing council Good performance of support team Adequate political leadership and direction of pilot
Activities and milestones <p>Stage 1:</p> <ul style="list-style-type: none"> Establish a benefit sharing council and revenue sharing account; Prepare a model fund Charter and key instruments to implement revenue sharing introducing modifications as appropriate; Assessed measures for equitable sharing of electricity access and enhanced entitlements for natural resource access Grant application and award to test the delivery and monitoring mechanisms Article-by-article review of the guidelines and recommendations to finalizing the legal instruments to introduce benefit-sharing mechanisms nationally. <p>Stage 2:</p> <ul style="list-style-type: none"> More in-depth test of benefit sharing mechanisms for a wider range of measures Preparation of capacity building tools to scale up program nationally 			Inputs <p>Stage 1:</p> <p>Donor Grant: \$US 233,888 Counterpart: \$US 60, 606</p> <p>Stage 2</p> <p>Donor grant: \$US 584,908 Counterpart: \$US 212,121</p>

1.5 REPORTING

69. The two key aspects of reporting are: (i) the benefit sharing council will report to Quang Nam provincial authorities and (ii) the project support team will report to ERAV. The project reports are identified in section 1.4.

4. BUDGET AND FINANCING PLAN

4.1 2-LEVEL BUDGET FOR THE PILOT

70. The budgets for the pilot project are calculated based on the estimated time, unit rates transportation costs, allowances, and the fees associated with each task in the seven activity areas. These provisional cost estimates will be reviewed in detail during inception stage and reflect actual costs for securing services. The summary tables on the budget provisions are as follows.

Stage 1 Budget

71. Table 3 shows the budget breakdown for the 7 activities. The largest local expenditure item is the Small Grant Budget. The contingency of 5% of the activity cost is incorporated in the final budget of \$US 293,494. The activity breakdown of the costs, the local and foreign currency components and disbursement schedule for the Stage 1 Budget is shown in Table 4. Table 5 provides the expenditure categories for Stage 1.

Table 4

Stage 1 Budget: Total + Disbursement Schedule

Activity	Local Currency Component		Foreign Currency Component	Disbursement \$US Equivalent		
	VND (000's)	\$US EQ	\$US	Year 1	Year 2	Total
1. PEOPLES COMMITTEES WORK	232,000	\$14,061	0	14,061	\$0	\$14,061
2. BENEFIT SHARING COUNCIL WORK	420,000	\$25,455	0	25,455	\$0	\$25,455
3. REVENUE-SHARING GRANTS	1,000,000	\$60,606	0	60,606	\$0	\$60,606
4. KNOWLEDGE SHARING & CAPACITY BUILDING	473,000	\$28,667	0	28,667	\$0	\$28,667
5. PROJECT TEAM SUPPORT, TRAINING AND REPORTS	859,100	\$52,067	67,900	119,967	\$0	\$119,967
6. MONITORING, AUDIT, EVALUATION & SOCIAL ACCOUNTABILITY	36,600	\$2,218	0	2,218	\$0	\$2,218
7. STEERING COMMITTEE AND NATIONAL WORKSHOPS	471,000	\$28,545	0	28,545	\$0	\$28,545
Stage 1 Activity Total	3,491,700	\$211,618	\$67,900	\$279,518	\$0	\$279,518
Contingency (5% in Activities)						\$13,976
Total Projected Stage 1 Budget						\$293,494

Exchange Rate VND to \$US

16,500

Table 5

Stage 1 Budget: Expenditure Categories

USD EQUIVALENT

Activity / Expenditure Category	Consultant Services (Fees)	Equipment Procurement	Awareness Training / Capacity Building / Other	Allowances	Travel and Subsistence (All)	Grant Awards	Total
1. PEOPLES COMMITTEES WORK	0	0	1,818	9,200	3,042	0	\$14,061
2. BENEFIT SHARING COUNCIL WORK	0	0	0	13,091	12,364	0	\$25,455
3. REVENUE-SHARING GRANTS	0	0	0	0	0	60,606	\$60,606
4. KNOWLEDGE SHARING & CAPACITY BUILDING	10,909	0	8,061	0	9,697	0	\$28,667
5. PROJECT TEAM SUPPORT, TRAINING AND REPORTS	73,620	9,206	0	0	35,686	0	\$119,967
6. MONITORING, AUDIT, EVALUATION & SOCIAL ACCOUNTABILITY	1,455	0	0	545	218	0	\$2,218
7. STEERING COMMITTEE AND NATIONAL WORKSHOPS	0	0	8,727	4,485	15,333	0	\$28,545
	\$85,983	\$9,206	\$18,606	\$27,321	\$76,341	\$60,606	\$279,518
Stage 1 - Activity Total							\$279,518
Physical Contingency							\$13,976
Total Projected Stage 1 Budget							\$293,494

The provisional estimate of the Stage 2 Budget is \$US 797,030. Similar information on the Stage 2 budget is shown in Tables 6 and 7.

Table 6**Stage 2 Budget: Total****Disbursement Schedule**

Activity	Local Currency Component		Foreign Currency Component		Disbursement \$US Equivalent			
	VND (000's)	\$US EQ	VND (000's)	\$US	Year 1	Year 2	Year 3	Total
1. PEOPLES COMMITTEES WORK	232,000	\$14,061	\$0	\$0	\$0	\$14,061	\$0	\$14,061
2. BENEFIT SHARING COUNCIL WORK	420,000	\$25,455	\$0	\$0	\$0	\$25,455	\$0	\$25,455
3. REVENUE-SHARING GRANTS	3,500,000	\$212,121	\$0	\$0	\$0	\$212,121	\$0	\$212,121
4. KNOWLEDGE SHARING & CAPACITY BUILDING	2,056,600	\$124,642	\$81,300	\$0	\$0	\$205,942	\$0	\$205,942
5. PROJECT TEAM SUPPORT, TRAINING AND REPORTS	1,171,100	\$70,976	\$117,100	\$0	\$0	\$188,076	\$0	\$188,076
6. MONITORING, AUDIT, EVALUATION & SOCIAL ACCOUNTABILITY	207,800	\$12,594	\$54,100	\$0	\$0	\$66,694	\$0	\$66,694
7. STEERING COMMITTEE AND NATIONAL WORKSHOPS	771,000	\$46,727	\$0	\$0	\$0	\$46,727	\$0	\$46,727
Stage 2 Activity Total	8,358,500	\$506,576	\$252,500	\$0	\$0	\$759,076	\$0	\$759,076
Contingency								\$37,954
Total Projected Stage 2 Budget								\$797,030

Exchange Rate VND to \$US 16,500**Table 7****Stage 2 Budget: Expenditure Categories****USD EQUIVALENT**

Activity / Expenditure Category	Consultant Services (Fees)	Equipment Procurement	Awareness Training / Capacity Building / Other	Allowances	Travel and Subsistence (All)	Grant Awards	Total
1. PEOPLES COMMITTEES WORK	0	0	1,818	9,200	3,042	0	\$14,061
2. BENEFIT SHARING COUNCIL WORK	0	0	0	13,091	12,364	0	\$25,455
3. REVENUE-SHARING GRANTS	0	0	0	0	0	212,121	\$212,121
4. KNOWLEDGE SHARING & CAPACITY BUILDING	75,621	0	96,242	0	34,079	0	\$205,942
5. PROJECT TEAM SUPPORT, TRAINING AND REPORTS	135,636	12,018	5,721	0	34,701	0	\$188,076
6. MONITORING, AUDIT, EVALUATION & SOCIAL ACCOUNTABILITY	41,325	0	0	545	24,823	0	\$66,694
7. STEERING COMMITTEE AND NATIONAL WORKSHOPS	0	0	20,330	10,887	15,510	0	\$46,727
	\$252,582	\$12,018	\$124,112	\$33,723	\$124,519	\$212,121	\$759,076
INCREMENTAL Activity Total							\$759,076
Contingency							\$37,954
Total Projected Stage 2 Budget							\$797,030

4.2 FINANCING PLAN FOR THE PILOT

72. Table 8 shows the total combined budget for Stages 1 and 2 of the pilot, and the potential split between counterpart and donor grant contributions. The potential counterpart contribution is assumed to be 20% to 30% of the total projected costs.²⁶ The assumption here is based on 25% over stages one and two combined.

73. The financing plan thus assumes that initial approaches will be made to donors for the Stage 1 budget for the equivalent of approximately \$232,888. The government would be approached to contribute approximately \$US 60,606 in VND.

²⁶ Based on traditional approaches to splitting the cost of development projects between donors and the government budget

Table 7

Pilot Project Budget	Total (\$US)	Counterpart (\$US)	%	Donor Grant (\$US)	%
Part A Fast Track - For Legislation	\$293,494	\$60,606	20.6%	\$232,888	79.4%
Part B Enhancement +Capacity Building	\$797,030	\$212,121	26.6%	\$584,908	73.4%
	\$1,090,524	\$272,727	25.0%	\$817,796	75.0%

Notes: (1) Include of Contingency of 5%
(2) Exchange rater VND to \$US 16,500

The Stage 2 budget would extend the pilot testing activities and provide for the essential capacity building elements as discussed previously. It would be wholly complementary with Stage 1 activities and essentially fund additional cycles. It assumes at least one year is needed to secure commitments from international partners for the funds involved.

Counterpart Contribution

74. ERAV through MOIT would propose the Government consider a contribution of approximately \$60,606 equivalent (in local currency) either from government budget sources or arranging alternative financing from other strategic partners, possibly on a cost-recovery basis.

75. Further it is proposed that the government contribution would cover the revenue sharing grants awarded to affected communities and would be used for grants to pilot test the benefit sharing mechanisms. This is reflected in the revenue sharing grant budget shown in Activity 3 in Table 4. It recognizes feedback from donors approached to date to support the Stage 1 budget.²⁷

Strategic Partner Contributions

76. Strategic Partner contributions could potentially be of three kinds (i) direct contributions to the pilot budget (ii) specific contributions to the pilot project using funding outside of the budget, or (iii) building additional measures into field projects in the A[^]Vuong area that donors already support, which will complement the objectives of the pilot and can be assessed alongside other elements of the test of the guidelines or preparation of capacity building tools.

77. To date the national stakeholder workshops for the TA confirm there is interest among international NGOs working in Vietnam to collaborate in fund-raising for the pilot. Otherwise there is interest in becoming strategic partners offering technical advice on use of revenue sharing funds such as payment for ecological services – recognizing that a bottom up process is used to decide funding priorities.

²⁷ Donors suggested a welcome approach would be for the government to finance the small grants.

Annexure:

Annex 1a: Stage 1 Budget– Line Items

(The detailed cost build up is available from ERAV)

**Benefit Sharing Mechanisms for People Adversely Affected by
Power Generation Projects in Viet Nam**

Asian Development Bank TA-4689 (VIE)

Final Report

Volume 2

Appendices on the Interim Reports and Workshops

Prepared for the Electricity Regulatory Authority of Vietnam Implementing
Agency for TA-4689 (VIE)

Prepared in cooperation with:
TA Working Group Members in ERAV

By:
Dr. Dang Vu Tung, Viet Nam
Lawrence J.M. Haas, UK

And
The Institute for Energy Studies, IES

December 2007

SUMMARY

This is the 2nd Volume of the Final Report for ADB TA-4689 (VIE) that supports the development of benefit sharing mechanisms on hydropower projects in Viet Nam as part of the government effort to advance sustainable development of the power sector.

This Volume contains the following:

[Appendix C:](#) The Rationale for Benefit Sharing: Section 1 from the TA Inception Report

[Appendix D:](#) Summary Section from the Policy Review – Interim Report 1

[Appendix E:](#) SWOT Analysis of Viet Nam’s Policy Environment

[Appendix F:](#) National Workshop Minutes and Overhead Presentations

[Appendix G:](#) Quang Nam Provincial Workshop Minutes discussing the draft Guidelines and Pilot Project

[Appendix H:](#) Stakeholder Analysis and Consultation Plan

[Appendix I:](#) Terms of Reference for the TA Steering Committee

**CONTENTS OF THE FINAL TA REPORT
ROAD MAP TO VOLUMES 1 TO 3**

Volume 1: Main Report

Describes the TA Process, consultation arrangements, the main outputs and provides recommendations on the way forward.

Appendix A: The Draft Guidelines on Benefit Sharing (in the form of a draft Decree)

Appendix B: Work Plan to Pilot Test the Guidelines on the A'Vuong Hydropower Project

Volume 2: Appendix of TA Reports and Workshops

A compilation of selected sections from the TA reports (i.e. the Inception Report and two Interim Reports), minutes and presentations from the TA Workshops

Appendix C: The Rationale for Benefit Sharing: from the TA Inception Report

Appendix D: Summary Section from the Policy Review – from Interim Report 1

Appendix E: SWOT Analysis of Viet Nam's Policy Environment - from Interim Report 1

Appendix F: Three National Workshop Minutes and Overhead Presentations

Appendix G: Quang Nam Province Workshop Minutes on Guidelines and the Pilot Project

Appendix H: Stakeholder Analysis and Consultation Plan

Appendix I: Terms of Reference for the TA Steering Committee

Volume 3: Appendix of Rapid Appraisals and Field Consultations

Compiles field reports describing socio-economic baseline conditions on hydropower projects, local views on the draft guidelines and preferences for the pilot project design. Based on a mix of desk study, structured interviews, surveys and focus group sessions.

Appendix J: Rapid Appraisal Report on the Song-Bung 4 Project – TA Component 2

Appendix K: Rapid Appraisal Report on the Song Hinh Project. – TA Component 2

Appendix L: Rapid Appraisal Report on the A'Vuong Project – TO Component 2

Appendix M: Generalized findings across the 3 rapid appraisals

Appendix N: Field Report on the A'Vuong Hydropower Project - Input to Pilot Work Plan

Abbreviations and Acronyms

ADB	Asian Development Bank
BSM / ESM	Benefit sharing mechanisms / environment (ecological) services mechanisms
CDD	Community driven development approaches
CPRGS	Comprehensive Poverty Reduction and Growth Strategy for Viet Nam
CSPU	ADB's Country Strategy and Program Update
CSO / NGO	Civil society (and social organizations) and non-government organizations
ERAV	Electricity Regulatory Authority of Viet Nam
ERPA	Emission Reduction Purchase Agreements
EVN	Electricity Authority of Viet Nam
IHA	International Hydropower Association
IWRM	Integrated Water Resource Management
MARD	Ministry of Agriculture and Rural Development
MoC	Ministry of Construction
MoF	Ministry of Finance
MoFI	Ministry of Fisheries
MoH	Ministry of Health
MOIT	Ministry of Industry and Trade (formerly MOI when the TA started)
MoNRE	Ministry of Natural Resources and Environment
MoST	Ministry of Science and Technology
MoT	Ministry of Transportation
MPI	Ministry of Planning and Investment
NEA	National Environmental Agency (under MONRE)
NWRC	National Water Resources Council (under MARD)
NWRS	National Water Resources Strategy
PECC	Power Engineering and Consulting Company (under EVN, PECC1 - PECC4)
PC	Power Company (9 PCs in Viet Nam)
PTC	Power Transmission Company (under EVN, 4 PTCs)
PPC	Provincial People's Committee
RBO	River Basin Organization
SC	Interagency Steering Committee for the TA
TA	Technical Assistance
TA-WG	Technical Assistance Working Group within ERAV
WCD	World Commission on Dams

Appendix C: The Rationale for Benefit Sharing

Section 1 from the TA Inception Report in September 2006

1. Benefit sharing has become a prominent theme in international thinking about ways to sustainably develop and manage hydropower projects, and equally important, to improve equity when allocating the benefits and costs within society. Today the principles and practices around benefit sharing in the power sector and regulatory reform for hydropower development in particular are at the convergence of a number of broader trends in sustainable development. These include:

- The introduction of IWRM principles, not only as a long-term goal but as a practical way to sustainably manage water resources and protect the environment in a river basin context;
- Increased awareness of the need to protect and manage aquatic ecosystem functions and services that many rural populations rely upon for daily livelihood, health and welfare needs;
- Ensuring poverty alleviation is an explicit focus in infrastructure projects, especially projects that impact disproportionately on poor rural communities;
- Capturing synergies between land management, income generation and measures to extend the operating lives of reservoirs with erosion and sediment control in catchments; and
- Greater reliance on community managed approaches that underpin many poverty alleviation and local resource management strategies and programs.

2. In practical terms, the explicit provision of benefit sharing arrangements that are perceived as fair, and developed in a collaborative way, can turn potential conflict into consensus on hydropower projects. This reduces the risks for all concerned, while creating significant long-term development opportunities for those households and communities most adversely affected by the project.

3. Experience shows that local benefit sharing is positive from all stakeholder perspectives. It allows project-affected people and traditional resource users to become partners in the hydropower project that they effectively “host” in their local community, or in their wider river basin community; and most important, to be among the first beneficiaries. From the government perspective, benefit sharing is a practical policy tool to achieve greater social inclusiveness and to balance social, economic and environmental factors in the planning, design, implementation and operation of projects. From the hydropower operator perspective, benefit sharing increases capacity to work effectively with local communities. Good community relations are important for a number of reasons, ranging from cooperation in land management measures that improve the operational life and performance of the reservoir, to cooperation with implementing environment mitigation measures as prescribed by law. From the perspective of potential investors, either from the public or private sectors, the presence of an explicit policy framework and practical provisions for benefit sharing is an indicator that locally affected communities are likely to support the project – all things considered. As a consequence, the investor’s risk exposure is reduced and investors are more inclined to become financing partners.

4. All these factors are important in Viet Nam’s power development. From the financing perspective alone, it is estimated that Viet Nam needs to mobilize \$1.5 billion to \$2 billion per year in new financing for its generation expansion program during the balance of this decade.¹

5. Benefit sharing essentially helps to internalize the costs of the ongoing social and environment components of hydropower projects in the electricity tariff. In this way the main consumers of electricity services in towns, cities and in industry more equitably share the benefits of hydropower development with the project-affected communities (as well as the full costs and risks). People that are most adversely affected typically reside in rural and remote areas. They often have marginal access to government services, or they rely on recession agriculture and other ecosystem-related livelihood activities downstream of the dam that are sensitive to hydropower operations. The majority of these people are among the poorest and most vulnerable groups in Vietnamese society.

2.1 THE RATIONALE FOR BENEFIT SHARING

6. There are numerous examples in developed and developing countries alike where local communities who give up their land entitlements or natural resource access for a hydropower project are provided with a monetary share of project revenues. Some groups may also receive non-monetary benefits, such as exclusive rights for reservoir fishing. The notion of benefit sharing goes beyond one-time compensation and other short-term resettlement measures to recognize that local populations can claim entitlement to part ownership of the economic rent generated by the hydropower facility.ⁱⁱ These arrangements either implicitly or explicitly treat the local communities as “equity partners” in the hydropower project. And more generally, as people with a stake not only in the project’s successful operation, but also its successful integration into their community life as conditions evolve over time.

7. A variety of financing mechanisms are now employed in different countries to channel monetary benefits to local benefit-sharing measures. These include for example:

- i) The redistribution of a small part of hydropower revenues to the affected communities or basin authorities in the form of royalties linked to power generation, water utilization or other resource use fees;
- ii) Part or full ownership of the project by the host community (direct equity sharing), for which their return on equity is used to finance the delivery of benefits programs;
- iii) Annual revenue transfers (from general taxes) to the affected municipalities, watershed management agencies and conservation authorities in the basin of the dam;
- iv) Levying property taxes on the land used for power facilities and reservoirs by local authorities, a measure that reduces local taxes and/or raises funds for development investment in the affected community areas;
- v) Direct long-term contracts between the project owner and the affected communities;
- vi) Granting preferential electricity rates and fees for other water-related services to local companies and project-affected populations; and more recently,
- vii) Use of carbon financing from emission purchase reduction agreements (ERPAs) under the Clean Development Mechanism (CDM) of the Kyoto Protocol, for eligible projects.ⁱⁱⁱ

8. Funds generated from one or more sources are typically earmarked for delivery to project affected groups through mechanisms suited to needs in the particular basin. The delivery mechanisms range from targeted increments in the funding of existing development initiatives of line ministries, or national programs, to establishment of permanent community-managed funds or Trusts. These mechanisms are sustainably financed from the sources noted previously. The measures supported are adapted to changing preferences as the development needs of beneficiaries evolve over time.

9. There are three main arguments for sharing a portion of the monetary benefits of hydropower generation with people displaced by the construction of the facility and its operation, and with people residing in the basin who are less directly impacted.^{iv}

- First, hydropower projects may generate a significant economic rent, which can be shared with project-affected populations (see the brief discussion of economic rent in Section 2.3);
- Secondly, there are several ethical reasons for redistributing part of the monetary benefits to project-affected populations - the main one being that local populations who forgo water resource or land access should receive part of the monetary benefits that accrue to people and enterprises outside the affected area, who benefit directly from power services;
- Thirdly, recognizing the nature and scale of the investments in hydropower (which typically draw on the resources of the consumers and the taxpayers - irrespective of the financing method), the national investment in hydropower should be conceived as part of the strategy to foster local and regional development, apart from direct provision of water and energy services.

Considerable international support exists for local benefit sharing

10. Today most multilateral and bilateral donors that support hydropower projects also actively support national efforts to introduce benefit-sharing arrangements. This TA is an example of the ADB involvement in such initiatives. The World Bank also helps to introduce benefit sharing in the hydropower projects it supports following its major re-engagement in water infrastructure development and management as set out in its Water Resource Sector Strategy (2003).^v

11. The growing emphasis on benefit sharing is in part prompted by the World Commission on Dams final report, “Dams and Development: A New Framework for Decision Making (2000)”. This was the outcome of a multi-regional collaborative process in which the Government of Viet Nam was a significant national partner.^{vi} On the benefit sharing aspect, the WCD stressed the need to evaluate how dams affect livelihoods and existing rights and entitlements (for land and resource access of all types) and particularly, to ensure the impacts on communities upstream and downstream are considered, not just the displaced people. It proposed a “Rights and Risk” approach to assess the degree to which different groups are impacted and face impoverishment risks. Two of the WCD’s seven strategic priorities addressed the need, firstly, to recognize entitlements and share benefits, and secondly, to recognize the value of ecosystems services in sustaining rural livelihoods during planning and decision-making about the management of all types of dams and reservoirs.

12. Benefit sharing is also an important element in integrated water resource management (IWRM), a framework that Viet Nam adopted in its Water Law (1998). To illustrate, the theme “water resources management and benefit sharing” was as one of five main thematic sessions for the 3rd World Water Forum (3rd WWF) and Ministerial Conference held in Japan in 2003.^{vii} This global Forum noted that explicit provisions for benefit sharing need to be introduced at a number of levels, from sharing between countries on international rivers to sharing between upstream and downstream users, and sharing between urban and rural centers. The Ministerial Statement at the 3rd WWF also stressed the need to adjust electricity and water tariff policies to account for a fair distribution of benefits.

13. Industry associations and agencies like the International Energy Agency (IEA) actively promote benefit sharing on hydropower projects.^{viii} The International Hydropower Association (IHA), for example, in its Hydropower Sustainability Guidelines and Compliance Protocol in 2004 calls for more attention to benefit sharing with local communities, both to improve the social sustainability of hydropower projects and to mobilize international financing support for projects.^{ix} Figure 1 is an extract from the IHA Protocol approved by its members in 81 countries. It has a scoring system to evaluate sustainability “credentials” of projects. As illustrated in Figure 1, hydropower projects that have provisions to share benefits with affected local communities as well as the basin community receive high scores; whereas, projects with no explicit benefit sharing provisions receive a “0” score.

Figure 1: International Hydropower Association (IHA) Sustainability Protocol for Hydropower Projects: Provisions for the distribution and sustainability of economic benefits

C2 Aspect: Distribution and sustainability of economic benefits.	
Auditing and monitoring show the distribution and sustainability of economic benefits to the affected local community and broader region.	
Sustainability Scoring	
5 = Highest	Auditing and monitoring program indicate positive and sustained economic benefits shared across the affected local community and broader region.
3 = Medium	Positive and sustained economic benefits to the local community only.
1 = Low	Limited benefits to the local community.
0 = Zero	No auditing/monitoring program, or benefits solely distributed to shareholders and direct participants.

Numerous country examples exist for Viet Nam to draw experience

14. Over the last 2-3 decades many countries with hydropower resources have introduced policies to share the monetary benefits of hydropower development with local communities. Typically the national legislation sets out the basic principle for revenue sharing, with formulae to calculate the amounts and the percentage allocation to different groups. In some countries the levels of benefit sharing are negotiated. But often the specific uses of funds and delivery mechanisms are not specified in legislation. They are developed for each project situation, consistent with the national framework and detailed regulations – which may be defined at national, provincial, sector or basin levels.

15. Contrary to the misconception that only rich countries can afford to introduce benefit sharing measures, experience over the last decade shows that societies with low national incomes or a large disparity in income between urban and rural areas, often gain the most. A number of developing countries have also pioneered new approaches to sustainably finance benefit sharing from power revenues.^x For instance, starting in the 1980’s at the Danjiangkou dam in **China**, a portion of the revenue from hydropower generation was placed in a “remaining problems fund”. These funds were made available to help households and communities that had been resettled around the reservoir margin to fund income-generating enterprises that re-established livelihoods. The fund was not only used to finance resettlement costs and livelihood restoration for people impacted by the new construction activities, but also to rectify problems associated with previous resettlement.

16. **India** is among the most recent countries to adopt benefit sharing in the power sector. India has announced its new hydropower policy in 2008 will incorporate provisions for 2% of revenue from hydropower projects to be allocated to local area development funds or Trusts.¹

17. The media articles in November 2007, cite Power Ministry officials as proposing to raise the quantum of free power allocated to Indian States from hydro from 12% to 13%, with the additional 1% to be exclusively earmarked for local area development. The States are also asked to contribute 1% of their existing 12% “free power allocation” to the same local area development fund, thus completing the 2%. The media reports the Power Ministry has proposed the local area development fund would be

¹ <http://timesofindia.indiatimes.com/articleshow/2026969.cms> The provisions have already been incorporated in the MoUs with Arunachal Pradesh government signed by NTPC, National Hydroelectric Power Corp and North Eastern Electric Power Company for nine projects aggregating 15,000 MW.

in the form of an annuity for the life of the project. A Standing Committee headed by an officer of the State government would operate the fund and it would have male and female representatives from the project affected people along with one executive from project developer. The stated purpose of the measures is to recognize the irreversible long-term impacts of hydropower projects on local communities. As reported the official position is ... “The local area development would provide for welfare schemes meant for the project affected people to help ensure that project affected achieve a higher living standard. Toward this end there is need for infusion of a regular stream of revenue aimed at providing income generation and welfare schemes. This local area fund will be critical for creating additional infrastructure and common facilities on a sustained and continued basis.”²

18. In **Brazil**, rather than taxing revenue on the sale of energy, the national Constitution (1988) taxes the water used to generate electricity. This is part of a general resource use tax that applies to other resources as well, including petroleum and mineral resources. Under a Constitutional provision, forty-five percent (45%) of income generated from the water-use tax annually goes to municipalities losing land to reservoir inundation (proportioned based on the area affected); forty-five percent (45%) goes to the state or provincial authorities where the project is located; and ten percent (10%) goes to the federal government to finance regulatory functions (i.e. 8% to the Federal Electricity Regulatory Agency (ANEEL) and 2% to the Ministry of Science and Technology).^{xi}

19. Several countries also specify that payments for managing ecological functions and the environment services transformed by hydropower project must be provided through hydropower revenues. This is on top of support for social development needs of the communities that host the project. For example, in **Columbia**, legislation stipulates that 3% of revenues from hydropower projects must be transferred annually to the watershed agency of the dam to fund watershed management activities working with basin communities.^{xii} The funds must be used to protect the environment in the watershed upstream of the dam and in downstream areas influenced by flow changes. A further 1.5% of project revenues must be transferred to the municipalities that border the reservoir, and 1.5% to the municipalities in the watershed upstream of the dam. These funds are allocated to finance infrastructure projects identified in municipal development plans.

20. In **Sierra Leone** West Africa, the Bumbuna Trust will be established for the 50 MW Bumbuna hydropower project due to be commissioned in late 2009. The Trust will have a multi-stakeholder board and operate different grant-financing windows for benefit sharing and to sustainably finance the environment and social management components of the project during its operation, thereby relieving government of the financial burden.^{xiii}

21. The benefit-sharing window will support applications for community-managed projects implemented with social accountability approaches (e.g. for village micro-infrastructure such as local roads, schools, health posts, market areas, etc., and for grants to youth groups for social activities, training and trade skills development). Other financing windows will support: the Bumbuna Watershed Management Agency (BWMA) to deliver land and soil management, agro forestry, and agriculture transformation programs in the catchment, which have combined aims to modernize agriculture practices, raise farm incomes, and provide erosion and sediment management to minimize reservoir sedimentation; fisheries programs for communities in the reservoir and downstream of the dam; and a conservation offset, the Bumbuna Conservation Authority (BCA) to support a community-managed protected wildlife area in the catchment for biodiversity conservation. A fifth grant window will fund rural electrification in the towns immediately around the project. Over time additional grant windows would be considered, such as for small-scale renewable options for off-grid areas and revolving rural micro-credit schemes. Core financing for the Bumbuna Trust is a combination of project revenue (provisionally 0.5 cents US/kwh) and revenue from an emission reduction purchase agreement or ERPA, where Sierra Leone will sell credits for certified emission reductions (VERs or CERs) arising from displacement of oil-based thermal generation.^{xiv}

² Times of India Report, “States with hydel projects to get more free power,” Nov 2007

22. There are examples in Asia, close to Viet Nam. In **Nepal**, the Local Self-Governance Act (1999) provided that 10% of direct monetary benefits from all development projects, including hydropower are to be allocated at local levels. The electricity regulation authority of Nepal initially collected royalties directly from hydropower producers, based on a royalty or resource use tax formula defined in the Electricity Act.^{xv} This portion of the tax received locally was considered to be, "compensation for the harm inflicted by hydropower projects on the people and natural resources of the District".^{xvi} In 2004, the formula was altered such that 50 percent of the royalty (or tax) levied on generation is now to be distributed in equal proportion to the District where the project is located and the directly affected villages. Village Committee structures decide how the money is to be used. The Government initiated a dialogue process with the National Association of Villages and the District Development Committees (DDC) to make provisions for transparency and social accountability in the use of these funds.

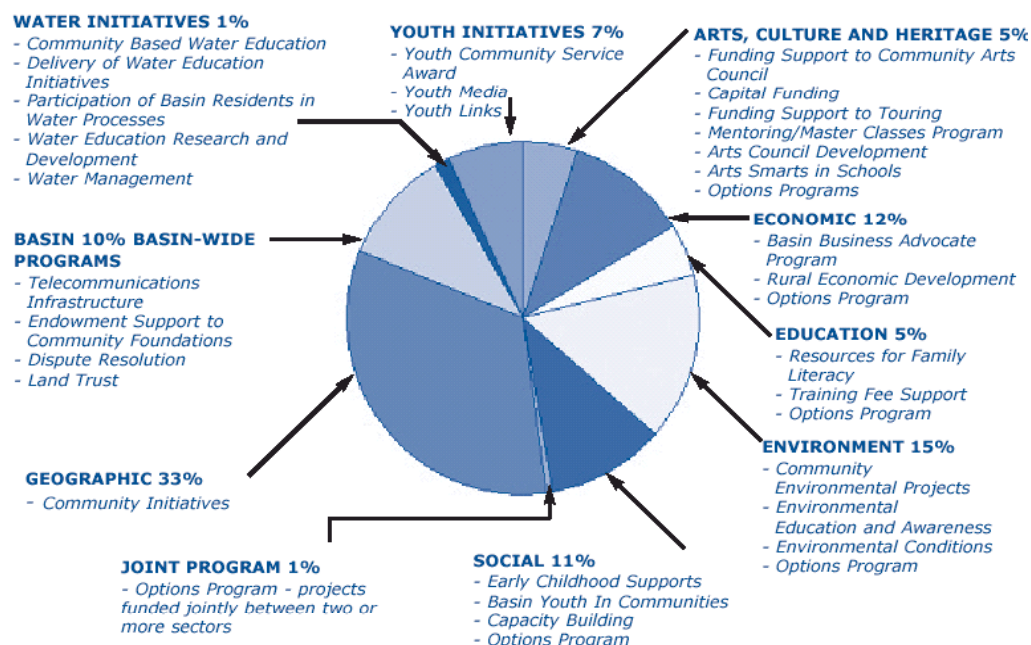
23. In **Lao PDR** bordering Viet Nam, one of the aims of the export-oriented Nam Theun 2 project is "to generate revenues that will be used to finance spending on priority poverty reduction and environmental programs in Lao PDR through environmentally and socially sustainable exploitation of NT2's hydropower potential".^{xvii} Specific revenue and expenditure management arrangements are set out in the project agreements. These provide a framework for the application of revenues when Nam Theun 2 is commissioned. The Government of Lao PDR has identified five indicative programs for distribution of these funds on the basis of the National Growth and Poverty Eradication Strategy (NGPES), namely: basic education; basic health care; rural roads; local development initiatives identified through a participatory decision-making process; and environmental protection initiatives.

24. Benefit sharing has evolved in developed countries, where increasingly a basin orientation is adopted if there is more than one project in the basin.^{xviii} While in Viet Nam, project-affected households and communes may prefer to invest in a mix of local development initiatives suited to their needs (e.g. income-raising measures related to improving access to forests resources, changing crops and farming techniques, improving livestock and poultry rearing, introducing rural credit schemes, etc.) categories of investment may be similar to those preferred by communities in developed countries.

25. To illustrate, a leading example of a benefit-sharing program at the basin-level is the Columbia Basin Trust (CBT) in western **Canada**.^{xix} The Columbia River Treaty between the Government of Canada and the United States implemented in 1964 initially governed the development of hydropower resources in the basin. Canada later transferred its obligations to the Province of British Columbia, which owns and operates all hydropower facilities in the Columbia basin, through BC Hydro. Under growing pressure from local communities from the early 1990's, the Province set up the Columbia Basin Trust (CBT Trust Act, 1995) as a mechanism to share a portion of hydropower revenues with the residents of the basin.^{xx} The CBT is community managed with an elected Board of community people. It functions with several grant-funding windows supporting a range of community-selected programs.

26. Figure 2 shows the allocation of funds that the elected representatives of the CBT set in 2004. Again this is for illustration purposes, but it also shows how benefit-sharing programs may evolve over time and their inherent longer-term nature. Some communities in the basin elected to launch new initiatives for enterprise development and environment management, in other cases communities chose to strengthen existing programs and services that government already provided in areas such as education, cultural, and youth programs, and social services like literacy improvement, youth skill training and childhood support. The communities felt these services had previously been under funded.

Figure 2: Delivery of benefits programmes at the basin level – The Columbia Basin Trust in British Columbia, Canada



Country and basin specific choice

27. Ultimately the choice of finance and deliver mechanism will depend on the nature of the project, the basin circumstances, the country legal framework and the development context.

28. A common feature of successful programs is the beneficiaries decide how funds will be used and the delivery of benefits is organized around their preferences. The role of central government is to provide the enabling policy and legal framework and establish rules on the level of benefit sharing (by prescription or negotiation) and the financing mechanisms. Local government, together with agencies, social organizations and civil society interests who work closely with project-affected groups would provide guidance and support to design the delivery mechanisms and actual participate in delivery of the measures in a manner appropriate to their normal roles.

29. A second common feature of many successful programs is the sustainability dimension. The inherent principle is local benefit sharing should be long-term in nature and continue over the economic life of the hydropower project. Moreover, the mechanisms and actual programs to deliver benefits must be adaptively managed as circumstances and development priorities in the basin evolve over time. This is important given the long-life of most infrastructure projects.

30. Once the rationale for benefit sharing is established two key questions comes to the forefront. Firstly, what level of benefit sharing is appropriate to balance between a meaningful investment in the development needs of project affected people, on the one hand, and the impact on general electricity tariffs that all consumers will feel, on the other hand (e.g. the minimum amount of financing to achieve measurable improvement in the livelihoods and welfare of the project-affected groups). This touches on the willingness of electricity consumers to share what may be presented as legitimate costs of hydropower development once they are informed. Government must balance these two considerations in framing the regulations. Secondly, what financing and delivery mechanism are most appropriate to achieve the desired development outcome and maintain public confidence in how the funds are utilized?

Endnotes for Appendix C

ⁱ Second Transmission and Distribution Project in Vietnam, Project Appraisal Document, 2005

ⁱⁱ See definition of economic rent in Section 2.3 of the Inception Report.

ⁱⁱⁱ Under the Kyoto Protocol's CDM, Annex A Countries (i.e. industrialized countries) can purchase emission reduction benefits from hydropower project in developing countries (countries who are signatories to the Kyoto Protocol) that typically derive from offsetting thermal generation and thus reduce CO2 production in the power sector. This is for eligible hydropower projects as determined by the CDM Board. Up to 30% of the emission reduction credits purchased in this manner can be applied to the Annex a country's emission reduction commitment under the Kyoto Protocol (see: www.carbonfinance.org).

^{iv} Arguments for benefit sharing as developed in the paper, "Benefit Sharing from Dam Projects: Phase 1: Desk Study, Vincent Roquet & Associates Inc, 2003 for the WB DAMAP program, and Trembath., B. 2001. Sharing of Benefits and Rents Arising from Hydropower Plants, Washington, DC: World Bank.

^v The World Bank's Dam Planning and Action Management Plan (DAMAP) is part of the World Bank Response to the WCD Recommendations and intended to lay the foundations for implementation of the Water Resource Sector Strategy (2003). Notes the Bank's goal must be to assist borrowers to move in the right direction: – to stepwise help those that most need to improve commitment, skills and capacity to sound options assessment, decision-making, project implementation and operation as well as benefit-sharing with project affected peoples.

<http://www.talsperrenkomitee.de/symposium/index.cgi/page/palmieri> and <http://books.google.com/books?vid=ISBN0821356976&id=ITLbnTSPKscC&pg=PA76&lpg=PA76&ots=sH1fyt7jcl&dq=dam+planning+and+management+action+plan&sig=jMklc5QXQ6yVat1PEuqpUZrFAwM> See also discussion of the Bumbuna Hydropower project later in this section.

^{vi} The Government of Vietnam through MARD hosted the WCD's Asia Regional Consultation in 2000 (http://www.dams.org/news_events/press325.htm) and has subsequently been involved as a national partner in the UNEP sponsored Dams and Development Project that is a follow-up to the WCD. In April 2003, the Vietnam Water Partnership prepared a scoping report that looked at the policy and institutional environment for application of the WCD's 7 Strategic Priorities in Viet Nam, including the policy of benefit sharing in Strategic Priority 5 "recognizing entitlements and sharing benefits" <http://adb.org/water/topics/dams/pdf/Vietnam-SR-draft-2.pdf#search=%22scoping%20report%20vietnam%20ddp%22>

The scoping report noted that a key challenge was to improve the legal framework for recognizing entitlements and sharing benefits in the development of large dams in Vietnam. http://www.unep.org/dams/files/information_sheet_4.2.pdf#search=%22scoping%20report%20vietnam%20ddp%22

^{vii} The 3rd World Water Forum and Ministerial Conference, Forum Bulletin 82, 2003: <http://www.iisd.ca/SD/3WWF/>

^{viii} Including the IHA, ICOLD, ICID and the International Energy Agency (IEA). See the IEA Hydropower Agreement. Annex III/5: Hydropower and the environment: present context and guidelines for future action, Vol. II: Main report and Vol. III Appendices. <http://www.adb.org/Water/topics/dams/pdf/HyA3S5V2.pdf> Page 99. Allocate resources and share benefits: An excellent way to ensure that members of displaced communities are better off after the project is to provide such communities with long-term revenue streams based on benefit sharing mechanisms.

^{ix} International Hydropower Association, Sustainability Guidelines and Protocol, 2004, <http://www.hydropower.org> and

http://www.hydropower.org/blue_planet_prize/compliance_protocol.html

^x "The future of large dams: dealing with social, environmental institutional and political costs", Thayer Scudder, 2005

^{xi} WCD, 2000. In addition large projects such as Itapu have long-term contracts between the affected communities and the project entity.

^{xii} <http://www.worldwaterweek.org/stockholmwatersymposium/workshop7.asp>

^{xiii} A World Bank grant will finance the environment and social management components during project implementation and lay the groundwork for establishment of the Bumbuna Trust. <http://www.bumbuna.com/>

^{xiv} The Bumbuna ERPA negotiated with the Government of the Netherlands falls under the Clean Development Mechanism (CDM) of the Kyoto Protocol.

^{xv} The Department of Electricity Development (DOED) in Nepal, <http://www.doed.gov.np/> . Initially the DOED and deposited 90 percent in the government's general revenue account, the remaining 10 percent was distributed to the affected districts (royalties as specified in the Electricity Act)

^{xvi} "Concepts And Methodologies On Benefit-Sharing For Large Hydro Dams: Experiences from Nepal", Gopal Siwakoti, 'Chintan' Water and Energy Users' Federation-Nepal (WAFED) and South Asian Solidarity for Rivers and Peoples (SARP), Presented at the UN Symposium on Hydropower and Sustainable Development, 2004, Beijing, China.

^{xvii} Revenue And Expenditure Management: Nam Theun 2 Hydroelectric Project, authored by Adrian Fozzard, Senior Public Sector Specialist, World Bank, 2005

^{xviii} The basin orientation is partly because there is often more than one hydropower facility in a basin. Consequently, the adverse impacts are difficult to disaggregate, such as the impacts of river flow changes on downstream communities.

^{xix} <http://www.cbt.org/main/default.asp>

^{xx} This CBT ACT (1995) granted the affected communities (through the CBT) a part equity share in hydro projects that BC Hydro owned in the basin. In addition, the provincial government provided an establishment grant to the CBT for a period of 5-years. The long-term equity holdings of the CBT generated a return on investment of \$ Canadian 3.8 million in 2004.

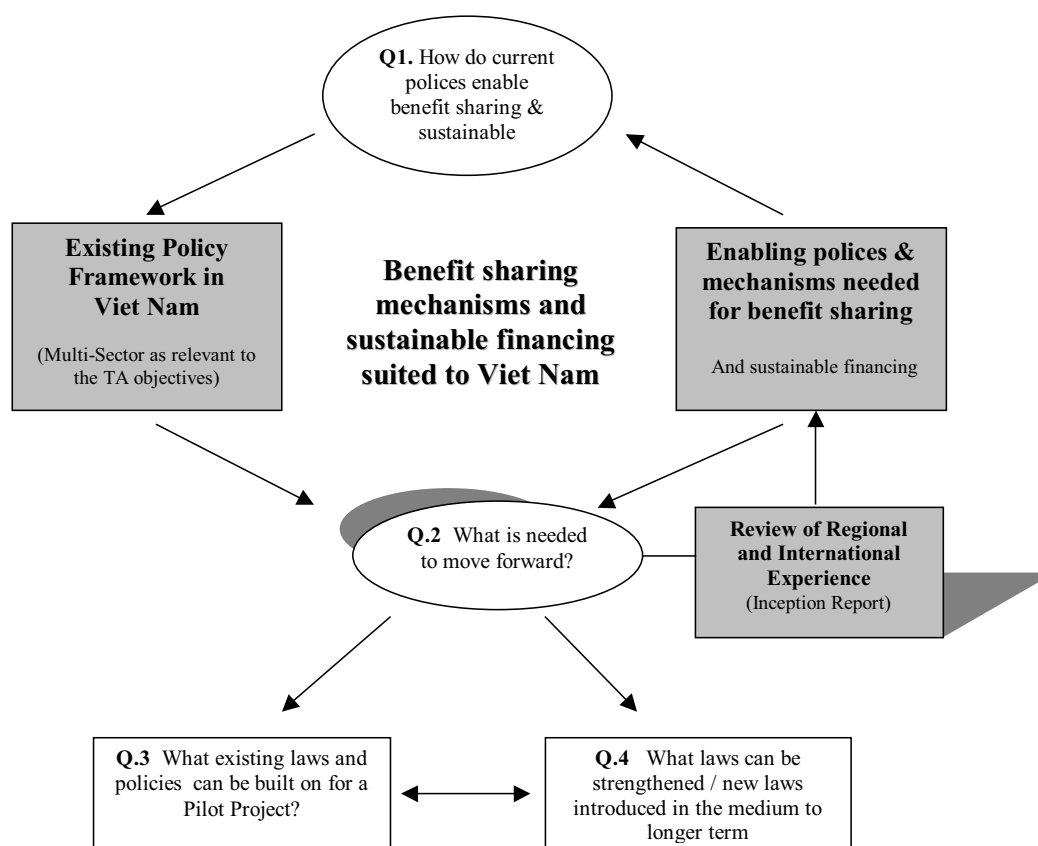
Appendix D: Summary Section from the Policy Review – Interim Report 1

1. Policy review - The analytical framework

1. This TA focuses on the identification of mechanisms (i) to equitably share the monetary benefits of hydropower generation with people adversely affected by hydropower projects in Viet Nam (ii) to improve local participation in management of ecosystems services adversely transformed by hydropower operations, and (iii) to finance measures from project revenues, or related fees.

2. The policy review undertaken in Component 1 of the TA considered Viet Nam’s existing legislation and policies in the framework shown in Figure 1 below.¹ The presentation of results is structured around responses to the four questions in Figure 1 and a SWOT analysis.

Figure 1: Analytical framework used in the policy review



3. As noted in the Inception Report, a hierarchy of legislation and decree-laws in different socio-economic and resource management sectors define the wider policy and legal environment for benefit sharing on hydropower projects. Technical Note 2 (supporting this report) gives a sector-by-sector review of existing legislation and policies. This looks both at primary legislation (an Article-by-Article review) and summarizes key secondary legal instruments in 10 categories:

¹ Figure 1 is from the TA Inception Report. While the analysis here responds to the questions in the figure, separately, Technical Note 6 looks at international experience in creating enabling laws and mechanisms for benefit sharing.

- 1.1 The State Constitution
- 1.2 The Power Sector
- 1.3 The Water Resources Sector
- 1.4 The Environment Sector
- 1.5 The Forest Sector
- 1.6 The Agriculture Sector
- 1.7 The Fisheries Sector
- 1.8 The Finance Sector including Land Administration Laws
- 1.9 The Social Sectors including laws relevant to Ethnic Minorities
- 1.10 International Conventions and Agreements ratified by Viet Nam

4. Section 2 of this report uses the sector-by-sector review to assess the current policy regime, structured around the four questions mentioned in Figure 1. Section 3 then provides a simplified, integrated analysis using a SWOT analysis format (strengths, weaknesses, opportunities and threats). This work is to support discussions with the Steering Committee and national stakeholders on the policy setting and the content of the guidelines to be prepared later in Component 2 of the TA.

2. Policy Review – Overview and Conclusions

5. Three generic types of benefit sharing were identified in the sector-by-sector review. All three could become reinforcing elements of a comprehensive policy framework for long-term benefit sharing on hydropower projects in Viet Nam – on the basis of policy precedent.

type 1 *Equitably sharing project services: Communities adversely affected by resource development projects are among the first to receive services provided by the project, possibly with preferential access or tariffs.*

type 2 *Sharing monetary benefits of resource utilization (revenue sharing): Local communities that “host” a resource development project in their area receive a share of project revenue according to a formula defined in regulations.²*

type 3 *Non-monetary forms benefit sharing. People adversely affected by resource development projects receive extra resource access entitlements to help offset loss of resource access or other entitlements the people enjoyed before the project.*

6. Applied to hydropower development, these approaches treat people who are adversely affected by hydropower projects both as “development” and “equity” partners. This moves beyond thinking mainly about displaced people and resettlement areas. For the purposes of benefit sharing, a broader definition of project-affected people is consistent with the EIA determination of different project impact zones. This broader definition recognizes, firstly and fundamentally, that people are adversely affected in different ways in the wider project impact area (e.g. either by permanent loss or reduction of resource access, or community level socio-culture property loss, or loss of land rights (recovered by the State), or property, or some mix of these). Secondly, it recognizes that local action is needed to stably manage hydropower assets on a sustainable, long-term basis; and that market-based incentives are needed for local partnerships to work – where many people that could take local action that would benefit hydropower operations would also be project affected groups.

7. International experience shows that “least-cost” approaches to benefit sharing start to look at longer-term arrangements up-front during project planning and preparation stages. At that point, opportunity exists to assess if physical provisions can be incorporated into the design of dams and hydropower plant to limit adverse impacts, such as on people living downstream and the reservoir perimeter. At the same time, greater flexibility can be built into the project to allow operating

² These support beneficiary-defined development needs, typically delivered through locally administered grant application programs, or funds.

strategies and incorporate new technology to maximize the benefits to future generations who will live in the river basin. This may be done with little additional cost, or less cost up-front (much lower than retrofit). It recognizes the life of hydropower facilities spans many decades, and much longer.³

8. Optimizing the tangible benefits that local communities can realize from sustainable hydropower development can then become a routine consideration in hydropower screening and ranking exercises, where alternative hydropower schemes in the river basin are evaluated.

Q1: DO CURRENT LAWS ENABLE BENEFIT SHARING AND SUSTAINABLE FINANCING?

9. The sector-by-sector review shows that all three forms of benefit sharing are reflected, to varying degrees, in primary legislation and sub-laws in the power, water resource, forestry, and environment sectors. The review also illustrates that benefit sharing is very closely interconnected with water resources and environment protection in Viet Nam's legal framework.

10. **Laws that enable benefit sharing.** The principle of benefit sharing is recognized in power sector legislation mainly as Type-1 benefit sharing. This appears in different forms at regional, national and local levels. The 1995 Mekong Agreement, for example, recognizes mutually beneficial development of hydropower and water resources potential in the Lower Mekong Basin (LMB), for Viet Nam, Thailand, Cambodia and Lao PDR. Similarly, international benefit sharing is recognized in the Electricity Law (EL, 2004, Article 5).

11. At the sub-national level, the principle of benefit sharing is embodied in policy to encourage equitable access to electricity services, and "... protect the legitimate rights and benefits of producers and consumers", in Articles 4 and 46 of the Electricity Law, concerning the rights and obligations of electricity consumers. The law also gives preference to improving access to electrical services in rural, remote and mountainous areas, where most national minority groups live and many existing and potential hydropower sites are located (e.g. EL, Chapter 8 Articles, and PMO Decision 176, 2004)⁴. Special attention to development needs of national minorities (by targeting national programs) would reflect Chapter 3 provisions in the State Constitution, to "...give priority investment" for government services in locations where national minorities live (e.g. for education and health care).

12. In the water sector, revenue from water utilization fees paid by hydropower projects is shared between the State and the Province. This is provided in the Water Law (WL, 1998) Articles 7 and 23 and is a form of Type-2 revenue sharing.⁵ However, there is no apparent targeting of any portion of the provincial share to people adversely affected by the hydropower project giving rise to the revenue. The review suggests there is scope to consider targeting these fees to income raising water protection measures like providing incentive to adversely affected people along the upstream river sections or along the new reservoir fringe to implementing measures like planting headwater forest trees – a form

³ For example, if discussion with downstream traditional users and fishing communities during the EIA processes leads to an agreement to optimise fish productivity in different stretches of the river below the dam, then the physical outlets in the dam (e.g. bottom flow outlets, nozzles etc.) need to be designed to accommodate water release patterns to meet specified targets (e.g. compensation flow releases, or higher volume releases for periodic flushing in dry seasons at critical fish spawning periods). Such measures may also be combined with fish passage structures (where technically feasible), or with the specification of turbines designed to reduce fish mortality rates in the E&M tenders. The gap between fisheries productivity and community income (pre-dam and post-dam cases) may be addressed by Type-2 or Type-3 benefit sharing arrangements; such as: support for alternative income generation via aquaculture, or by starting and maintaining a reservoir fisheries program for people living close to the reservoir (e.g., to contribute to costs of fish stocking and patrolling, etc.).

⁴ Decision approving the strategy on development of Viet Nam's Electricity Industry in the 2004-2010 period with orientations towards 2020; prioritizes electrification in rural/mountainous areas, and targets 90% and 100% of rural households for connection by 2010 and 2020, respectively; giving priority to hydropower (Article 1).

⁵ In this case, the provincial Departments of Finance (DOFs) advises the Provincial People's Committees (PPCs) on PPC talks with the State about the provincial share of the fee. The total fee shared is based on 2% of gross electrical generation (GWh annually) at prescribed rates. (MOF Letter, 2004)

of local revenue sharing. This is on the basis of the Water Law (Article 23) and Decree 179 (1999, Article 8) on implementing the legislation that prescribes how the water utilization fees are to be used.⁶ This aspect is discussed later in this summary.

13. The Law on Environment Protection (LoEP, 2005), which came into effect in July 2006, stipulates the protection of biodiversity, including biodiversity resources that are adversely affected by projects, like hydropower projects,⁷ must be implemented, "... based on the assurance of the rights and legitimate benefits of local communities", (Article 30). The LoEP further stipulates that, "... localities within river basins are jointly responsible for protecting water environments ... and ensuring benefits for local residential communities", (Article 59). This reflects a Type-2 benefit sharing where it is reinforced by the calls for new financing mechanisms for environment protection at the local level, as set out in the LoEP (2005, Article 110) and other recent laws.⁸

14. Another illustration of Type-2 benefit sharing in the environment sector is revenue sharing from international patents. This relates to revenue from biological and genetic resources (e.g. patents of commercial value for plant species, food, rice, and medicinal plants). MoNRE and the National Environment Agency (NEA) are actively cooperating with the Convention on Biological Diversity (CBD) and donors to explore such mechanisms. The aim is to develop laws to share the monetary proceeds (income from licenses or patents) between local communities, provincial and state levels.¹ This revenue sharing arrangement was adopted by the Conference of Parties (COP) resolutions and agreed by all signatories of the CBD, including Viet Nam (see also Table 9a).⁹

15. Viet Nam's forestry sector laws prescribe all three types of benefit sharing. The context is the 2001 Forestry sector policy aims to decentralize forest management. The strategy is to involve a wider range of actors, including farmers and local communities in forest development and protection activities. A further aim is to enhance the poverty reduction in the forest sector by providing equitable benefit sharing arrangements that support co-management of forest resources and pass greater control of forest resources to local communities. An example of an initiative to move this policy forward is Program 661, where individuals and communities have received payment for protecting watersheds by planting trees.¹⁰ Some criticism is leveled on the implementation of these policies, such as the slow pace of issuing land entitlements to local communities that are needed.ⁱⁱ

16. The Forest Protection and Development Laws (1991, and the 2004 update) also encourage Type-2 revenue sharing arrangements. Direct sharing of revenue from forest product sales between local communities and State Forest Enterprises (SFEs) is promoted (i.e., to ... "ensure a harmonious benefit-sharing relationship between, on one hand, laborers and the State and the SFEs, and on the other, between SFEs and localities", Article 2 (item 3) of the PMO Decision 187, 1999).¹¹ This is analogous to local communities adversely impacted by hydropower projects having revenue sharing arrangements with hydropower entities to adopt practices that also benefit hydropower production.

17. In the forest sector the shift in policy from one that previously limited community access to forests, to one that encourages state enterprises and local communities to work together in co-

⁶ This interpretation would also take into account overlapping laws in both the WL (1998) and LoEP (2005)

⁷ Covered by Chapter 3 provisions of the LoEP (2005) defining the content and aims of project-level EIAs.

⁸ Politburo Resolution on environmental protection in the period of accelerated national industrialization and modernization (41-NQ/TW, 2004) and the PMO Decision (34/2005/QĐ-TTg), as discussed later.

⁹ The CBD, Decision II/18 (2000) recommending benefit sharing and national participatory processes for the activities covered by Article 15, and in particular, ways by which access and benefit-sharing measures and guidelines, including related institutional arrangements, are developed and implemented by Member States.

¹⁰ This is being done through the 5MHRPs fund 661.

¹¹ PMO Decision 179, On Renovation of the Organization and Management System of State Forest Enterprises, to orient SFE activities in line with commercial principles in production, less essential protection forest and industrial raw material forests, and to transform SFEs to Protection Forest Management Boards, where SFEs now manage 5,000 ha or more of essential or very essential watershed protection forest.

protection and sustainable use of forest resources is important to thinking about benefit sharing on hydropower projects.¹² Regeneration and sustainable management of highland forests, for example, is a key element of sustainable catchment management. It is an integral part of the Integrated Water Resource Management (IWRM) philosophy introduced by the Water Law (WL, 1998), which places the management of water resources in a river basin context – including the operation of hydropower projects. Article 5 of the Water Law, stipulates, “... the protection of water resources ... must be linked with the protection and development of forests”. Article 11 states, “... the State shall have a plan to protect and develop headwater forests and other forests”. The direct connection with hydropower is in Article 39, that says, “... the building of water reservoirs must be ...linked with the protection and development of forests and the reproductive capability of the water source....”.

18. Apart from protecting water resources for all users (hydropower as well as consumptive uses), the policy of sustainable management of watersheds can have implications for the long-term performance of hydropower assets in Viet Nam. Erosion and sediment control, for example, can help maintain live storage capacity in reservoirs.¹³ Similarly, efforts to maintain the hydraulic functions that headwater forests provide, like water retention and infiltration functions, are all essential elements of Viet Nam’s integrated strategy for flood and drought management – which co-exist in Viet Nam. These actions link to the operation of hydropower reservoirs (e.g., WL, Article 39 on the operation of reservoirs, ... to prevent and combat flood at the lower reaches”). All these factors ultimately influence longer-term hydro generation capacity and thus hydropower revenues.¹⁴

19. Laws that enable ecosystem management. In a similar way, the principle of managing ecosystems adversely affected by development projects and production enterprises is embodied in Viet Nam’s primary legislation. The definition of ecosystems in Vietnamese law includes forest ecosystems, river ecosystems, wetland ecosystem (fresh water and saline) and coastal ecosystems in river estuaries. In relation to thinking about benefit sharing on hydropower projects this concerns (i) ecosystems that may be adversely transformed by changes in river flow and hydropower operations, where the ecosystem services that people living in the project impact zones relied upon in pre-project conditions, are reduced or lost, or (ii) ecosystems whose effective management can contribute to the sustainable management of hydropower assets.

20. The Electricity Law (2004) calls for stable and sustainable development of the power sector as a core policy aim (Article 4), which requires “... (the application of) technology and science in electricity activities ...for ... protection of (the) ecological environment (ecosystem services).” A key aspect is sustainable development. It is defined in Vietnamese law as, “development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs, on the basis of a close and harmonized combination of economic growth, assurance of social advancement and environmental protection”.¹⁵ Electricity laws do not set out specific measures to manage the adverse ecosystem impacts of hydropower operations; rather, they require power sector entities to comply with the relevant environment protection regulations including the EIA procedures (e.g. EL, Article 11).

21. The Laws on Environment Protection (LoEP 1993, and the 2005 revision) prescribe that adverse ecosystem impacts of hydropower projects are to be avoided, or otherwise mitigated and managed. In general terms, the law stipulates the “... protection of biodiversity must be implemented ... as part of rationale use of resources...”, (LoEP, 2005, Article 30). In respect to reservoirs, the LoEP (2005, Article 64) stipulates that, “... the construction, management and operation of reservoirs for irrigation and hydropower purposes must be integrated with environmental protection”, and ...

¹² The situation is clear in protection forests but is more complex in special use forests.

¹³ Land erosion and sedimentation is major concern in a number of river basin catchments in Viet Nam, also associated with mass wasting, given the mountainous topography and monsoon climate.

¹⁴ ICOLD and International Hydropower Association cite many examples where sustainable management of the catchment extends reservoir operating lives and generation capacity.

¹⁵ The definition of sustainable development in the Law on Environment Protection, 52/2005/QH11, Article 3,

“water environments in reservoirs ... must be routinely monitored to predict changes in water quality and hydrological regimes to regulate water resources and to protect the environment”. In particular, the change in hydrological regimes means attention to possible downstream adverse impacts.

22. Overall the legislation establishes that environment impacts assessments (EIA) and the family of environment assessment (EA) tools (e.g. SEAs) is one basis for the competent authorities to approve (hydropower) projects (LoEP, 1993, Article 18). This basis includes the “... specific measures for adverse environmental impact minimization...and commitments to take environmental protection measures during the construction and operation of projects” (LoEP, 2005, Article 20). With respect to maintaining functional ecosystems, law defines environmental protection as including, “ ... all activities aimed at preserving a healthy... environment, improving the environment, ensuring ecological balance, preventing and overcoming adverse impacts of man and nature on the environment ...”, (Article 1, LoEP 1993, and Article 3, LoEP, 2005).

23. The Water Law (1998, in Article 29) has similar provisions where it stipulates, “... the building of hydroelectric works must comply with the planning of the river basin and prescriptions on environmental protection”. As mentioned, Article 39 says, “... the building of water reservoirs must be ...linked with the protection and development of forests and reproductive capability of the water source...”. Article 44, states, “ the management and operation of ...water reservoirs... must comply with processes and rules of ensuring the prevention and fight against salinity infiltration.”

24. The article thus embodies a requirement to consider the downstream environmental flow implications of hydropower projects. PMO Decree 179, on implementation of the water law stipulates that MOIT, “...shall coordinate with the concerned ministries and branches ...(in) formulating process of operating hydroelectric reservoirs ... (for) ensuring safety of hydraulic engineering works of hydroelectric power plants and the integrated exploitation of water sources...”.

International Agreements

25. International agreements also shape Viet Nam’s evolving legal framework and sub-laws on ecosystem management, related to hydropower development. Article 2 of the LoEP (2005) states, “...in case provisions of international treaties to which ... Viet Nam is a Contracting Party contradict provisions of this Law, the former shall prevail”, and Article 118, stipulates, “...the international environment treaties to which Viet Nam is a Contracting Party must be fulfilled”.

26. Viet Nam’s commitment to implement the RAMSAR Convention on Wetlands illustrates how international commitments link the planning and management of hydropower to ecosystem management – and adverse impacts of hydropower on ecosystem services that rural people may rely upon for livelihood and income. RAMSAR initially focused on conserving bird life habitat when it started in 1971. In modern times, RAMSAR has a much broader remit in light of the multiple pressures water resources systems face in most countries. Resolutions of the RAMSAR Conference of Parties (COP) now offer guidance on how to link the operation of hydropower reservoirs to the management strategies of wetland systems in a river basin management context.ⁱⁱⁱ

27. Viet Nam’s policy on wetland areas recognizes this orientation. In addition to producing food, it is recognized in official statements and law that freshwater wetlands in river systems provide a range of important environment services from flood control to water purification to biodiversity conservation - that all indirectly support the broader economy in Viet Nam.^{iv}

28. PMO Decree 109 (2003) on the conservation and sustainable development of wetlands and MoNRE’s Circular 18 on implementing Decree 109 (2004), place the responsibility for wetland management under Provincial People’s Committees (directing DoNREs), and MoNRE itself, in the

case of wetlands designated as internationally significant.¹⁶ MoNRE and VEPA have jointly prepared the National Strategy and Action Plan on Wetlands (2004-2010) to advance Viet Nam's wetland interests and respond to RAMSAR commitments.¹⁷ The National Environment Strategy for Environment Protection (2001–2010 with vision to 2020) and the Biodiversity Action Plan (to 2015 with a vision to 2020) also extend priority to efforts to reflect wetland and biodiversity conservation principles in the development policies across all sectors.

29. Viet Nam's legal framework thus calls for a strong link between hydropower planning and operation and the management of ecosystems that is important to thinking about benefit sharing.

30. Laws that enable sustainable financing. The second part of Question 1 (in Figure 1) asked - to what extent does Viet Nam's current policy and legal framework enable longer-term financing mechanisms for benefit sharing? The article-by-article review of legislation suggests laws clearly support long-term financing arrangements for benefit sharing on hydropower projects (type-2 revenue sharing) if they are based on "user pay" principles and market mechanisms. Also it is clear from the review that any financing mechanisms for benefit sharing must be harmonized with the new laws that are emerging for improving the financing of water resource protection and environment protection. A new group of sub-law on these aspects will be promulgated over the next few years.

31. This approach started with the State Constitution (1992) in Chapter 2 on the economic system. It says socialist market mechanisms will be employed to manage state-owned natural resources in a stable manner, and move away from sole reliance on State budgets. The policy of "Doi MOIT," (renovation) approved by the Sixth Party Congress (1986) effectively triggered the present chain of far-reaching reforms in the economy that include land reforms and the de-collectivization and opening of the agricultural and forest sectors to market forces. This renovation process is ongoing. The shift to a multi-component commodity economy under State management remains a defining feature of recent reforms in all sectors, including the power sector.

Links to water and environment protection financing

32. The water utilization fees introduced in 1998 and revenue sharing between local forest communities and SFEs introduced in 1999, as mentioned previously, are both examples of the gradual shift to market-based mechanisms for resource management. Recent environment laws indicate a desire to more quickly mobilize funds from organizations and enterprises to combat environmental degradation and to place the accelerated modernization of the economy on a more sustainable footing. Government has also committed to increase public expenditures on environment protection and management to one percent of the State budget in 2006; and thereafter increase spending to match the rate of economic growth.^v Environment protection, which includes management of ecosystem services that rural people rely on is rising on the policy agenda.

33. Two laws that best illustrate the growing concern about the state of the environment are (i) the Politburo's Resolution on environmental protection in the period of accelerated national industrialization and modernization (41-NQ/TW, 2004), and (ii) the PMO Decision (34/2005/QĐ-TTg) promulgating the government's action program to implement this resolution. These laws aim, among other things, to "... enhance financial capabilities, accelerate the application of economic measures, and create substantial changes in investment in environmental protection ...," and further to, "... institutionalize economic instruments ... for environmental protection". These laws call for "... promptly elaboration of a (new) Environmental Tax Law". Task 4 of the government Action Plan (in PMO Decision 24) also aims to, "... increase the diversity of environmental protection activities,

¹⁶ Govt Decree 109/2003/ND-CP, On conservation and sustainable development of wetlands; and MONRE Circular 18/2004/Tt-Btnmt, Guiding The Implementation Of Decree 109

¹⁷ MONRE Decision No. 04/2004/QĐ-BTNMT, 2004, National Action Plan on Conservation and Sustainable Development of Wetlands, period 2004-2010.

encourage the participation of private sectors and adopt mechanisms to encourage enterprises of all economic sectors to provide environmental protection services ...”. Similarly, Task 3 aims to, “... ensure appropriate capital portions within the total investment capital of development projects for satisfaction of prescribed environmental protection requirements...”

34. These laws suggest the policy is to strengthen (where warranted) the environment allocations in hydropower capital budgets (for project implementation), and increase the contribution that operational hydropower projects make to finance environment protection measures. The LoEP (2005, Article 110) also discusses the need to invigorate financing of environment protection with new financing mechanisms. It stipulates sources of new financing will include, “ ... funds from organizations and individuals for the prevention and restriction of adversely environmental impacts of their production, business and service activities”, and, “revenues from the compensation for environmental damages”.

35. The environment law calls for new financing mechanism to bring all this together. Environmental Protection Funds are to be set up at local, sector and central levels (LoEP, 2005, Article 115). Working capital is to come from multiple sources, including state budgets and revenues raised to compensate for environmental damages paid to the State (by public and private sector enterprises), as well as a range of new environmental taxes, protection fees and fines – yet to be specified. The law prescribes that Provincial People’s Committees will decide the mode of establishment, organization and operation of local environmental protection funds. Significantly, the law says the State shall “encourage enterprises, organizations and individuals to establish environmental protection funds”, (LoEP, 2005, Article 115, item 1).

36. The new Environment Tax Law (expected by 2008) will shed some light on how the new environment tax laws apply to hydropower projects. The formula to value pollution and environmental degradation caused by production enterprises (LoEP, Article 132) may also be established at that time. The environment law states that compensation will be paid by individuals and enterprises (public and private) for pollution and environmental degradation that their operations cause; and that revenue thus generated will fund environment protection and management measures related to the project’s adverse effects. For these purposes, the legislation defines environmental degradation in very broad terms as, “... degradation in the quality and quantity of environmental components that cause adverse impacts on human beings and living organisms”, (Articles, 3 and Articles 134 to 137, of the EPL (2005) on determination and valuation of compensation for damages caused by environmental pollution and degradation).

37. Conceivably one outcome of all these new policies on financing may be that hydropower projects will contribute to some local Environment Protection Funds, or may be required to establish such Funds associated with the project. A liberal reading of the LoEP (2005) suggests this will be encouraged, at minimum. These funds may focus on facilitating the management of the ecosystem services transformed (degraded, in legal terms) by the construction of the dam and subsequent hydropower operations. In practice, what is decided as “degradation” attributed to the hydropower project, may depend on what the project EIA identifies as adverse impacts of the project (e.g. scale and significance in terms of adverse impacts on ecosystem functions and ecosystem services).¹⁸ The Environment Law notes (LoEP, 2005, Article 20) the EIA must take account of, “...commitments to take environmental protection measures during the construction and operation of projects”.

38. Similarly, hydropower projects may be required (or invited) to contribute to a basin or sector Water Resource Protection Fund (e.g. to help manage protected or headwater forests). This may help address a concern that existing water resource utilization fees levied on hydropower projects are not

¹⁸ Some commentators suggest there is an ongoing need to strengthen EIA procedures (e.g. to introduce new concepts such as environment flow assessments to identify how ecosystems are transformed by hydropower and mitigation and management measures that link to the livelihoods of traditional water users).

specifically targeted to water resource protection measures (there was not apparent indication of such picked up in the review), and instead go to general revenue budgets to be used for any purpose.

Links to power market reform

39. The policy of “Doi MOIT” as it translates to the power sector centers on restructuring the power industry and establishing a competitive power market. This is based on principles of transparency, fairness and healthy competition. Again it is important to stress that benefit sharing occurs during the operation stage of hydropower projects and thus financing must come from project revenues, directly or indirectly, not capital budgets. The financing mechanisms in any event must be balanced in the power market rules and tariff structures. Among other factors, it will be important to maintain a “level playing field” for hydropower investment, not only in terms of “fair” competition between hydropower operators, but also hydropower operators relative to other generation types, like coal, oil and gas.

40. To be pragmatic, it will be necessary to establish consensus on the financing mechanism and amount (the equivalent percentage of revenue). The policy review shows that many different factors come into play in setting electricity tariffs schedules.¹⁹ One overall principle set in PMO Decree 176, 2005 on the road map for power sector reform (Article 1) is the separation of tariff policy from social policy. Article 29 of Electricity Law also states that tariff policy is, “... to gradually reduce and eliminate the cross-subsidization between the production electricity price and the residential electricity price to foster production and increase the competitiveness of enterprises.” An implicit aim is to avoid resorting to subsidy from State budgets to pay for the incremental environment and water resource protection costs that are assigned to hydropower projects in relevant laws.

41. It will be important to distinguish between what constitutes a social subsidy in electricity tariffs (a subsidy practice that Viet Nam’s electricity laws discourage, with the exception of life-line rates²⁰), and what is a progressive step to internalize the environmental and social costs of hydropower development in the electricity tariff (a practice that Viet Nam’s legislation in the water, environment and forest sectors encourages). User pay principles are firmly established in law and Politburo Resolution (41-NQ/TW, 2004) underlines the need for rapid progress in this direction.

42. Decisions on the financing mechanisms are nevertheless quite separate from the question of who has primary responsibility to undertake, or coordinate the delivery of benefit sharing measures (e.g. whether Hydropower Project Management Boards or concerned Provincial Departments implement the measures).

Q2. WHAT IS NEEDED TO MOVE FORWARD?

43. The pilot project will help understand the type of financing and delivery mechanisms most practical and build consensus on the principle elements of a longer-term policy framework. The pilot project will also be most helpful to decide what level of benefit sharing (the financing formula) is most effective.

44. The road map for power sector reform helps to define the timeframe. The first of three steps to establish a competitive power market is now underway (competitive market for generation 2005-2014), with the first major step in 2009. This suggests ideally a sub-law on benefit sharing should be in place by 2009 and the pilot project would ideally be undertaken in 2007 and 2008. By that time also, there will be more clarity on financing contribution expected of hydropower projects for environment and water resource protection obligations and the actual use of such funds.

¹⁹ Article 30 of the Electricity Law (2000) that describes principles for tariff setting; ultimately the PMO is responsible for approving tariffs.

²⁰ Lifeline tariffs in residential tariff blocks and tariffs in areas of extreme difficulty are still to be reconciled.

45. Developing a draft decree-law that covers the financing aspects would be a clear step forward. A decree-law could, for example, be advanced by MOIT together with the other proposals on establishing the market rules and tariff structures for the competitive generation market. Otherwise, it might be advanced as a separate but related decree-law issued by the government or the PMO.

46. After the financing issue is clarified, sub-laws on the delivery mechanisms and institutional arrangements can fall into place more easily. Many decisions will be under the control of PPCs, but guidelines are clearly needed to ensure a consistent approach. As suggested in the SWOT analysis, the actual delivery mechanisms can build upon the current institutional arrangements in place now to deliver national programs (e.g. like Program 135 that mobilizes mass organizations for various small scale rural infrastructure investments and Program 661 on protecting watersheds by tree planting), or alternatively to “ring fencing” incremental funding for provincial departments involved (e.g. the DARDs, MARDs, DOIs and DOFs).

47. Another aspect will be to consider how Type-1, Type-2 and Type-3 benefit sharing arrangements work together as reinforcing elements of a comprehensive policy framework. This is discussed further under the response to Q4. What is also important is to identify the best entry points for talking with project affected people about the benefit sharing measures they prefer. Key entry points would be in the EIA process during the feasibility stage, and preparation of the environment management plan (EMP) and the RAP during detailed design and implementation stages. The EIA, in particular, would help to identify the project-affected groups (i.e. those eligible to participate in benefit sharing programs) within the rules established in the regulations, and also to ensure that links with environment and water resource protection measures are made to avoid duplication or unnecessary overlap. Also to ensure that benefit sharing principles are incorporated in the environment management and water resource protection activities that are implemented separately.

Q3. WHAT EXISTING LAWS CAN BE BUILT UPON FOR THE PILOT PROJECT?

48. The primary legislation that was discussed previously that will serve to strengthen capacity to provide for sustainable development of hydropower resources in Viet Nam underlines the relevance and timeliness of the pilot project on benefit sharing. This is to reflect the legal definition of sustainable development, which is “development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs, on the basis of a close and harmonized combination of economic growth, assurance of social advancement and environmental protection”.

Potential delivery mechanisms for the pilot

49. The specific laws to build upon to implement the pilot project depend in part on the project selected to test guidelines and the budget for the pilot. These factors will, for example, influence the number of affected groups that may be involved and the geographic boundaries. This means whether the pilot project would test measures suited to communes (i) in the upstream catchment (ii) in the reservoir area (iii) in the area where displaced families have been relocated, seeking to reestablish livelihoods (iv) and areas downstream of the dam and hydropower facilities. Typically each group will have different preferences for benefit sharing to reflect how they are adversely impacted and their particular development circumstances.

50. For example, the relevant forest legislation would be built upon, if communities upstream of the reservoir participate in co-management of headwater forests and tree planting. This may be to offset income loss from a reduction in fisheries for communities that border the upstream river sections. Co-management of headwater forests are objectives of the forest strategy, as discussed previously. In such cases, the provincial DARD and DoNRE would facilitate delivery of this support (like helping to ensuring the process of land allocation is completed in the watershed areas), and possibly launching the support measures in partnership with local NGOs and INGOs already active in the District area.

51. On the other hand, people permanently displaced by the reservoir inundation or the dams and power station construction may prefer longer-term measures for improving production in their resettlement areas (beyond what is provided under Decree 197 which is time limited). They may, for example, want help to build community infrastructure in the new area or improve extension services, such as to move successfully from shifting cultivation to rotational cultivation. They may also prefer forestry measures to the extent the relocation area has forests. The existing resettlement planning process can be built upon to identify the type of measures and delivery mechanisms this group prefers. For the pilot, it may be feasible to test the impact of extending the cutoff date and support under Decree 197, which deals with resettlement of displaced people and life stabilization and production stabilization support to some extent.

52. For people living close to the margins of the new reservoir, the fisheries laws may be more relevant. The approach may be to assist local fishing unions to form and to establish viable reservoir fisheries programs. Many of the actual laws for this are either locally defined, and under the control or provincial departments. As discussed in Technical Note 2, a concern raised by reservoir fisheries groups that have established to date in Viet Nam is the absence of any rules and/or guidelines for local authorities to extend support, and critically, no access to even limited financial support.²¹

53. The interests of communities living downstream of the dam or powerhouse may start with having a stronger voice in the EIA process. There it may be possible to influence the adoption of reservoir operating strategies to minimize the worst impacts on downstream ecosystem functionality that lead to income loss. Environmental flow assessment techniques are now becoming common in many other countries for this purpose. Otherwise, the interests of the downstream traditional users may center on long-term support to develop alternative livelihoods, like moving away from river-based fishing to land-based aquaculture, if land availability in their locality permits. The current EIA dialogue processes that define operation phase environment mitigation and management strategies can be built upon to identify (i) the extent of adverse impacts to ecosystem services and their importance of any loss to downstream communities, and (ii) the support measures they prefer to deal with significant changes.

54. During the design of the pilot project in the final phase of this TA, guidance can be sought from provincial authorities on how inclusive the pilot project can be (how many affected groups can participate), for a given level of budget for the pilot project.

Potential financing mechanisms for the pilot

55. Funding is perhaps the most important aspect of the pilot project. The policy review has pointed to a number of potential financing sources in the existing laws. There may be a mix of financing sources proposed for the pilot.

56. For example, one option may be to target a portion of the existing provincial share of water resource utilization fees the hydropower project selected for the pilot is due to pay (fees currently collected by DOF from EVN). A legal basis for this may be found in the interpretation of the water laws that stipulate how this fee is to be used, namely:

- i. Article 23 of the Water Law (WL, 1998). “... organizations and individuals that exploit and use water resource have ... obligations ... to compensate for the damage caused by themselves in the exploitation and use of water resource as prescribed by law...” and “... (to) protect the water resource under exploitation and use”;

²¹ As noted in Section 1.5 this is largely based on Management of River and Reservoir Fisheries Association of Viet Nam (MRRF) position that advocates support for and removal of barriers to reservoir fisheries.

- ii. Article 8 of Decree 179 (1999) on implementing the Water Law. "... (there are) financial obligations of organizations and individuals that exploit and use water resources ..." and most important... "... the fee for granting water exploitation permits and the water use charge shall be used for the management and protection of water resources".
- iii. Article 39 (WL, 1998). "... the building of water reservoirs must be ...linked with the protection and development of forests and the reproductive capability of the water source...." Which, combined with other articles, empowers the use of fees for headwater forest management that may apply to several groups.
- iv. Article 64 (WL, 1998). "... the construction, management and operation of reservoirs for irrigation and hydropower purposes must be integrated with environmental protection". Which together with the other Articles also empowers the use of fees for downstream ecosystem management.

57. Technical Note 2 illustrates a calculation of the water use fees for three hydropower projects included in the survey in Component 2 of the TA (i.e. average annual generation from Son Hinh, as well as that projected for A'Vuong and Song Bung 4 when they come on line, in 2008 and 2012 respectively). The procedure specified (MOF Letter, 2004) using rates for 2005, shows the total amounts are significant (between \$US 600,000 and 800.0000 equivalent annually). That is the total amount. The provincial share may be limited. No information was available in the policy review also on how the State share's of this fee is assigned to water resource protection measures.²²

58. A second financing option is for ERAV/ EVN to prescribe an amount to be set aside from the revenue stream of the pilot project, in effect use it as a pilot trial to prepare for competitive generation markets. This may be combined with some offsetting consideration for EVN, like the funds would be credited to and recovered by EVN in the longer term.²³ Such funds may flow to a special project account administered by the DOI in the province of the pilot. An alternative financing vehicle would be to place these funds in a local Environment Protection Fund, or one attached to the Pilot project. The legal basis and policy rationale was mentioned earlier. But otherwise, the decision on whether to establish a local Environment Protection Fund rests with the Provincial People's Committee.

59. A third option may be to pilot test the utilization of any fees to be assigned to hydropower in provisions in new Environment Tax Law proposed in PMO Decision 34/2005/QĐ-TTg on implementation of the Politburo resolution. The extent that such provisions for hydropower projects will be incorporated in new Environment Tax law (expected in 2008) is yet to be established, as is the possible timing in relation to when the pilot project will proceed.

60. It is anticipated that a mix of financing source will be explored when the financing plan for the pilot is prepared in Component 3 of the TA. This will also include consideration of potential contributions from strategic partners from the donor and INGO community that may be interested in participating in the pilot, for instance, as co-financers and implementation partners.

²² It is recognized these are complex budget questions. In other countries that apply hydropower revenue to water and environment management, the argument is made that it is not possible, or indeed practical to demonstrate the fees collected actually led to an increase in overall water resource protection budgets at State and provincial levels after a new hydropower project starts. To observe the spirit and intent of the law, the fees are "ring fenced" for resource protection related to the project. The mechanisms for ensuring this vary.

²³ The main difficulty with this approach is it essentially asks EVN to make a financing contribution to the Pilot as part of preparing for the power market rules. Though, conceivably this may be combine with some guarantee of a future consideration to offset taxes.

Q4. WHAT POLICIES CAN BE STRENGTHENED OR BE INTRODUCED IN FUTURE?

61. It is important to distinguish between benefit sharing during the implementation stages of hydropower projects and longer-term benefit sharing during the operation phases.

62. Any form of benefit sharing that occurs during the project implementation would likely be restricted mostly to displaced people and link to compensation and resettlement provisions (following Decree 197). Otherwise, it would form part of the package of local development measures negotiated when the project was approved. The latter may include, for example, measures to maximize local employment during construction works, or infrastructure investment for communities in the project impact area. These measures would be funded from the project capital budget, or from the provincial department budgets, or perhaps set out in prior agreements to target existing national programs.²⁴

63. Longer-term benefit sharing measures and associated ecosystem management measures are financed from project revenue, essentially. Even if a water utilization fee or an environment protection fee were used for part, or all of these needs, the costs would ultimately be reflected in tariff as a cost of production. Thus all electricity consumers will share these costs (by revenue sharing)

Elements of a comprehensive program:

The policy review suggests three parallel tracks can be pursued in a comprehensive, long-term approach to benefit sharing on hydropower projects. These stem from the three types of benefit sharing noted at the start of this summary.

- **For Type-1 benefit sharing – equitable sharing of access to power services.** Project-affected people are targeted within existing rural electrification programs and budgets, as appropriate. There may be some limitations. It may not be safe to connect households in some remote highland areas due to electrical safety codes; or, some communities may prefer to use financial entitlements for traditional livelihood needs first, then improved power services later.^{vi,vii}

The policy rationale and legal basis is:

- The Electricity Law (2004, Article 60, item 3) that states “...organizations and/or individuals of all economic sectors engaging in power generation, distribution and electricity business in rural, mountainous areas of difficult and quite difficult socio-economic conditions shall enjoy preferences and incentives in investment, finance...”
- Decision 176, 2004, on approving strategy for power industry development (Article 11)²⁵ that stresses the aim ... “to provide budget capital support for projects on electrification in rural, mountainous areas... (and) in service of economic development as well as hunger eradication and poverty alleviation in these areas”, and
- Decision 176, 2004 (Article 1), that seeks an electrification target of 90% and 100% of rural households by 2010 and 2020, respectively; and places priority on hydropower development.

Targeting is a common feature in many national programs. Provincial People’s Committees set the priorities for rural electrification within the national electrification targets and reconcile competing

²⁴ Benefit sharing arrangements during implementation may include a range of options. For example: maximizing local employment in the construction phase (labour and services), related skills and training support, any community development support negotiated or considered as part of the project approval process (e.g. community infrastructure, houses, schools, local roads and extension services). Cost may be covered by the project budget or parallel investment from local government budgets.

²⁵ PMO Decision 176 approving the strategy on development of Vietnam Electricity Industry in the 2004-2010 period, with orientations towards 2020.

investment needs. This would need coordination between the DOIs and MOIT, in respect to national rural electrification initiatives, and also with the Committee for Ethnic Minorities.

- **For Type-2 benefit sharing – Sharing monetary benefits of hydropower generation (revenue sharing).** Local communities “hosting” the project, who permanently give up their land, or have their resource access permanently transformed can receive a share of project revenue according to a formula defined in regulations.

The policy rationale and legal basis for this is:

- The principle of revenue sharing with local communities is already established in Vietnamese law. A market-based approach would center on two long-term aspects:
- First, providing a catalyst for local development through beneficiary-defined livelihood restoration, enhancement and community development schemes. Such revenue sharing facilitates an arrangement where the main consumers of electricity services in towns, cities and in industry more equitably share the full benefits and costs of hydropower development with the project-affected communities (as well as the full risks).
- Second, to link local development sustainable management of the hydropower asset (improving long-term revenue generation) and meet environment and water resource protection obligations. This seeks to combine the benefits of sustainable development by internalizing the environment and social costs of hydropower development in the tariff.

These approaches treat all project-affected people as “development” partners in hydropower projects. The market-based financing mechanism (revenue sharing) is consistent with laws on stable and long term management of natural resources, in this case hydropower resources.

- **For Type-3 benefit sharing – Non-monetary benefit sharing.** People adversely affected by hydropower projects receive extra resource access entitlements (e.g. enhanced forest access rights; preferential or exclusive rights to develop reservoir fisheries, preferential rights to land downstream to practice freshwater aquaculture, etc.).

The policy rationale and legal basis is:

- laws that establish protection of biodiversity must, “... be implemented based on the assurance of the rights and legitimate benefits of local communities” (LoEP, Article 30), and “... localities within river basins are jointly responsible for protecting water environments ... and ensuring benefits for local residential communities”, (LoEP, Article 59).
- Many resource access rights are within the authority of the Provincial People’s Committees to grant (via MARD, DOFI or DoNRE authorization activities).
- These arrangements help offset loss of entitlements people enjoyed before the project, which may have been a significant component of their income or means of subsistence.

This requires a conscious and systematic effort to identify the opportunities available to populations upstream, in the reservoir area or resettlement areas and downstream during SEAs and EIAs.

Figure 2 illustrates how these three aspects may be reinforcing elements in a progressive, longer-term benefit sharing policy framework.

Figure 2: Illustration of a comprehensive approach to longer term benefit sharing

Options / Attributes	Three Parallel Tracks (Based on the 3-types of benefit sharing)		
	Type-1 Measures	Type-2 Measures	Type-3 Measures
	Equitable access to power services	Revenue sharing / monetary benefit sharing	Non-monetary benefit sharing
Approach	<ul style="list-style-type: none"> - Combined with Type-2 and -3 benefit sharing - Target rural electrification to people adversely affected by hydropower projects - Make these people among the first to benefit from the project - When electrical safety and other conditions permit. 	<ul style="list-style-type: none"> - Fund local development and livelihood initiatives - Improve management of ecosystems transformed by hydropower projects - Link income raising to sustainable management of hydropower assets plus environment and water resource protection obligations 	<ul style="list-style-type: none"> - Award entitlements, like forest access and fisheries rights - Grant other livelihood-related entitlements preferred - Make entitlements transferable, if appropriate - Consider tax incentives
Possible Timing	<ul style="list-style-type: none"> - No limit on when to start measures 	<ul style="list-style-type: none"> - Linked to competitive market for generation (2005-2014) - Suggests policy should be in place by 2009 - Overtime move from project to project + basin orientation 	<ul style="list-style-type: none"> - No limit on when to start measures
Policy rationale / legal basis	<ul style="list-style-type: none"> - Equitable access to electrical services (EL, 2004, Articles 4 and 46) - Priority to improve power services in ethnic and poor areas (EL, 04 (Article 60) and Decision 176 (Article 1)) - Targeting power service to 90% & 100% of rural homes by 2010 & 2020, respectively (Decision 176, 04 (Article 1)) 	<ul style="list-style-type: none"> - Precedents in sector laws (e.g.) - Revenue sharing between local communities and State Forest Enterprises (SFEs), Decision 187, 1999, Article (item 3) - Revenue sharing between the State and Provinces on water utilization fees (WL, 1998, Articles 7 and 23) and Decree 179 (1999, Article 8) 	<ul style="list-style-type: none"> - Many entitlement are within PPCs decision authority - Tax incentives (preferential tax rates) already are identified in laws e.g. in areas of difficult and extremely difficult socio-economic conditions
Possible cost / financing mechanism	<ul style="list-style-type: none"> - No incremental funds - Establish additional criterion to targeting annual budget allocations for rural electrification capital and O&M 	<ul style="list-style-type: none"> - Percent of gross generation (international experience and pilot project can guide recommendations) - Percent of water utilization and environment protection fees - Any financing mechanism is ultimately reflected in tariffs 	<ul style="list-style-type: none"> - No incremental funds - Measures involving tax incentive are not revenue neutral
Policy instruments	<ul style="list-style-type: none"> - Guidance on policy as applied to MOIT rural electrification programs (e.g. decision, or circular) - PPC endorsement, and implementation guidelines - Link to current discussion of a new Rural Electrification Fund (set as a policy principle in deployment of funds) 	<ul style="list-style-type: none"> - Decree-law or equivalent PMO approval on the financing mechanism. - Links to framing the competitive power market rules - Deliver aspects require strengthening SEA & EIA and Decree 197 guidance - Eventually requires decision on role of RBOs in basin level benefit sharing 	<ul style="list-style-type: none"> - Guidance on type and scope of the entitlement that may be awarded - MOF clarification on any tax incentives applicable - Possible clarification on tax on income from entitlements (income activity or transfer of entitlement)

64. Linking benefit sharing to the project cycle. A final consideration is how to reflect benefit-sharing principles in the earlier stages of project selection, design and implementation. One aspect is the cost of benefit sharing needs to be incorporated in the feasibility study. A clearly specified regulation is needed. In that way (i) the revenue sharing formula set out in regulations can be reflected in economic and financial appraisals of hydropower projects, (ii) physical measures can be incorporated in the project feasibility and detailed design work so as to build in operational flexibility, and (iii) any incremental costs can be reflected in the project capital cost.

65. As mentioned previously, early consideration of benefit sharing in the project cycle can also lead to a “least cost” approach overall. For example, it is frequently less costly to build flexibility into the dam design to allow for future changes to reservoir operations and to re-optimize benefits over time, than to shut down projects to attempt major retrofits. Indeed, worldwide experience shows that reservoir operations need to adapt to changing economic circumstances in the river basin over time, and to different societal priorities for water use and environment protection. Not compromising the ability of future generations to meet their needs and priorities is a major aspect in how sustainable development is defined in Vietnamese law.

66. The wider family Environment Assessment (EA) analytical tools used at different stages of the project cycle, and the EIA together with the RAP in particular, represent an important entry point to introduce benefit-sharing assessments. Agreements can be made at an early stage, such that once the project is commissioned the measures come into effect smoothly. This can reduced the risk of controversy on the project and costly delays.

67. Moving further upstream in the planning process, the LoEP (2005, Chapter III Articles) calls for Strategic Environment Assessments (SEAs) to inform decisions about sectoral strategies and plans of a national scale (which includes the power sector and hydropower sub-sector). The laws also call for SEAs in integrated river basin planning at the inter-provincial level (Article 14). The general principles of benefit sharing and ecosystem management can be incorporated in SEAs, and also in hydropower screening and ranking studies (through quantitative and qualitative factors).

68. During the policy review, it was not possible to look at detailed regulations on hydropower feasibility study and design, or the fine details of EIA laws in Viet Nam. Nevertheless, experience shows that explicit guidelines will be helpful to enable planning staff to introducing modern techniques used in other developing countries, like environment flow assessments, and to ensure these tools are available and used in EA processes. This should be seen as a part of the normal evolution in standards and knowledge for the design and management of hydropower projects.

ⁱ <http://www.biodiv.org/programmes/socio-eco/benefit/project.aspx?id=5674>

ⁱⁱ Vietnam Environment Monitor 2005, page 34, The Ministry of Environment and Natural Resources (MoNRE), the World Bank, and the Swedish International Development Cooperation Agency (SIDA). Though at the same time criticism is raised that the poverty reduction emphasis in the forest policy is still weak. ADB Poverty Assessment for Vietnam, Feb 2006.

ⁱⁱⁱ For example, RAMSR Resolution Viii, 2002 on guidelines for the allocation and management of water for maintaining the ecological functions of wetlands, http://www.ramsar.org/res/key_res_viii_01_e.htm Ramsar Resolution IX.1 on River basin management: additional guidance and a framework for the analysis of case studies, http://www.ramsar.org/key_guide_riverbasins_e.htm and RAMSAR resolution Vii Guidelines for integrating wetland conservation and wise use into river basin management http://www.ramsar.org/res/key_res_vii.18e.htm

Resolution on the WCD http://www.ramsar.org/res/key_res_viii_02_e.htm

^{iv} Statements by the Deputy Minister of Natural Resources and Environment (NRE), reported in Red Orbit, Vietnam: Tougher Sanctions Needed to Protect Wetlands, Sept 2005, http://www.redorbit.com/news/display/?id=242024&source=r_science

^v Viet Nam News, <http://english.vietnamnet.vn/social/2005/02/382415/>

^{vi} The Role of Local Communities in Hydro-planning, UNESCAP/E7 Regional Workshop on EIA for Hydropower Development In Cambodia, Laos PDR Thailand and Vietnam: Communities adversely impacted by hydropower projects attending this workshop said they expect some benefits from dam development, but they are concerned about the costs. For example, many people stated that they ‘cannot eat electricity’.

^{vii} <http://www.ngoforum.org.kh/Environment/Docs/mekongpeople.htm>

Appendix E: SWOT Analysis of Viet Nam’s Policy Environment

Strengths, weaknesses, opportunities and threats (SWOT)

1. A number of participatory analytical tools are available today to systematically categorize complex policy issues. These can help to structure and facilitate dialogue among policy-makers and other stakeholders. One of these techniques is the SWOT analysis, illustrated in Figure 3. It is a structured process that provides an integrated assessment of the policy environment for a particular project, business venture or policy. It then looks at the projection of new policies moving forward in any timeframe the analysts may wish to consider.

Figure 3: SWOT Concept Framework

<p>Strengths</p> <ul style="list-style-type: none"> ▪ _____ ▪ _____ ▪ _____ ▪ _____ 	<p>Weaknesses</p> <ul style="list-style-type: none"> ▪ _____ ▪ _____ ▪ _____ ▪ _____
<p>Opportunities</p> <ul style="list-style-type: none"> ▪ _____ ▪ _____ ▪ _____ ▪ _____ 	<p>Threats</p> <ul style="list-style-type: none"> ▪ _____ ▪ _____ ▪ _____ ▪ _____

2. Table 2 at the end of this section presents a short version of a classical SWOT analysis of Viet Nam’s existing policy framework, focusing on four aspects:

1. Establishing consensus on benefit sharing policies;
2. Introducing mechanisms to deliver benefit-sharing measures affected people prefer;
3. Introducing mechanisms to improve the management of ecosystem services transformed by river flow regulation and hydropower operation hydropower, and
4. Introducing sustainable, market-based financing mechanisms.

3. Overall the analysis suggests that Viet Nam has a comprehensive body of progressive legislation well suited to the sustainable development of hydropower and engaging local communities in the sustainable management of hydropower assets. Benefit sharing principles are implicitly recognized in Viet Nam’s body of primary legislation. Despite this, progress in developing the follow-on secondary laws and regulations has been slow in some sectors, due to various factors.ⁱ

4. A general weakness is the wide gap between the enabling legislation and practice in many sectors. This supports the view that a progressive approach is needed to introduce benefit-sharing mechanisms in the power sector. A related weakness also is the narrow definition of project-affected people presently applied in many EIAs, which tend to focus on displaced people mainly.ⁱⁱ Generally, EIA tools need to be more comprehensive in considering the potential for adverse impacts on a wider range of people upstream and downstream (as embodied in the EPL, 2005 and WL, 1998). Thus a broader definition of people adversely affected by hydropower projects would be appropriate.

5. This preliminary analysis suggests that PPCs already have mechanisms and partnership arrangements well suited to deliver benefit-sharing measures. Consequently, there is no urgency to introduce new institutional capacity in this regard. But clearly, there is a need to strengthen capacity to manage ecosystems (as part of environment protection and water resource protection) and strengthen mechanisms for affected people to participate in local actions that contribute to environment and water resource protection. The most important and significant opportunity rests with advancing hydropower, forestry, environment and social policies simultaneously by combining benefit sharing with market-based financing mechanisms.

Table 2: SWOT Analysis of Viet Nam's existing legislation and policy framework in regard to benefit sharing

Aspect	Strengths (Up to now)	Weaknesses (Up to now)	Opportunities (For the future)	Threats (Up to now + future)
<p>Establishing consensus on benefit sharing policies (in legislation and policies)</p>	<p>Benefit sharing principles are implicitly recognized in Viet Nam's body of primary legislation and explicitly reflected in policy and decree laws in many sectors.</p> <ul style="list-style-type: none"> ▪ Laws incorporate 3 types of benefit sharing (1) equitable sharing project services (2) sharing monetary benefits – revenue sharing, and (3) sharing non-monetary benefits – resource access. ▪ Type 1 sharing is explicitly reflected in policies on improving access to electricity services in mountainous, rural and ethnic areas (e.g. Electricity Law) ▪ Type 2 sharing is explicitly reflected in resource laws, like the: <ul style="list-style-type: none"> - Forest sector: sharing revenue from forest product use between forest communities and SFES; - Water sector: sharing water utilization fees between provinces and the State ▪ Support to restore livelihoods of people displaced by hydropower projects is reflected in Decree 197 (closely linked to benefit sharing); ▪ Benefit sharing is consistent with Viet Nam's wider social policies, e.g.: <ul style="list-style-type: none"> - CPRGS strategies, - Development emphasis for national minorities groups (State Constitution), - Closing the urban-rural income gap. ▪ Electricity Law calls for sustainable development of the power sector to advance socio-economic development of the country, recognizing over 70% of the population is rural based. 	<p>While the broader principle is recognized, power sector laws and regulations do not call for sharing monetary benefits (revenue sharing) at the local level.</p> <ul style="list-style-type: none"> ▪ Laws currently look at people affected by hydropower projects in a limited way, focusing on property compensation for displaced people (Decree 197); ▪ PPCs have limited awareness / access to information on benefit sharing concepts and practice in other countries; ▪ Benefit sharing and livelihood restoration are not normally criteria in decision-making in the project cycle of hydropower projects, e.g. <ul style="list-style-type: none"> - Starting in hydropower master plans and screening exercises, which selects hydropower projects, - in feasibility / EIA studies; - in detailed design and equipment specifications, and - in formulating operating strategies – such as reflected in the absence of environment flow assessments); ▪ Lack of budget provisions for environment mitigation, management and monitoring for operation stages of hydropower are a common weakness; ▪ No or limited coordination of policies across sectors (e.g. wetland and protected area management strategies with hydropower development strategy and project-specific design and operation parameters) 	<p>Benefit sharing and managing ecosystem services are tools to optimally and sustainably develop hydropower (i.e. balance economic, social, environment dimensions).</p> <ul style="list-style-type: none"> ▪ To promote sustainable development of the power sector, a core aim of the Electricity Law (Article 1) <ul style="list-style-type: none"> ▪ To maximize use of market-based mechanisms for environment protection / sustainable development and unburden government budgets. As reflected in: <ul style="list-style-type: none"> - the Constitution Chapter 2 and policy of "Dot MOT," (renovation), - The Electricity Law (2004) in shifting to a competitive power market - Politburo Resolution on environmental protection (2004) in the period of accelerated national industrialization and modernization. (see discussion under financing mechanisms) ▪ To balance economic, social and environment dimensions in optimizing hydropower development: <ul style="list-style-type: none"> - Economic: using market mechanisms that internalize environment and social costs of hydropower projects in project budgets and tariff structures; - Social: ensuring equitable distribution of benefits and costs of hydropower development between urban & rural people and catalyze rural development - Environmental: with concrete measures involving people in managing ecosystem services and sustainably managing hydropower assets. 	<p>The case for benefit sharing needs is not well argued. Measures will not be implemented or piecemeal approaches are adopted.</p> <ul style="list-style-type: none"> ▪ Concerns about impact of benefit sharing on tariffs levels need to be adequately addressed; ▪ The pilot project or other initiatives that demonstrated delivery mechanisms must be sufficiently supported (financially and in terms of securing cooperation of the major actors); ▪ Potential confusion about the possible institutional and mass organization roles in delivery or financing of measures; ▪ Lack of a clear policy framework and thus a continuing lack of financing; ▪ Limited progress in other sector reforms that are relevant, e.g. with establishing functional river basin organizations or approaches to introduce sustainable catchment management; ▪ The low level of education background among a large number of project affected people limits awareness of entitlements and the lack of a framework for benefit sharing limits discussion. <p>External Threats</p> <ul style="list-style-type: none"> ▪ Limited threats, except in respect to the likely need to harmonize policy approaches in the Mekong basin (LMB) on shared rivers.

Aspect	Strengths (Up to now)	Weaknesses (Up to now)	Opportunities (For the future)	Threats (Up to now + future)
<p>Introducing mechanisms to deliver benefit sharing measures</p>	<p>Existing national / provincial rural development programs can deliver measures adversely affected groups of people prefer. New delivery institutions are not required.</p> <ul style="list-style-type: none"> ▪ Many initiatives and national programs focus on the central highlands and other upland areas where hydropower sites are located (e.g., Program 135 and HEPR), though financing is always a constraint; ▪ Laws and systems exist that specify procedures to establish local development preferences and allocate funds to competing needs (i.e., PPC led decision-making at provincial, district and commune levels); ▪ Mass organizations now play an effective role delivering grass roots development measures. They can play a similar role deploying incremental funds from benefit sharing allocations; ▪ Regulations exist that require mass organizations, enterprises and others who may be involved in delivery to account for funds deployed and used; ▪ Legislation provides grievance procedures people adversely impacted by hydropower development can use, and at the same time calls for peoples active participation in rectification measures (Constitution, and Electricity and Environment Laws); ▪ Government encourages partnerships with NGOs and Donor organizations with experience in community-driven development approaches around which delivery mechanisms would be formed. 	<p>People indirectly affected by hydropower projects do not receive targeted assistance, or livelihood support that systematically recognizes the extent to which they are adversely impacted.</p> <ul style="list-style-type: none"> ▪ Laws currently reflect a limited view of what is needed to re-establish livelihood of displace people only (e.g. the one-year cut off in Decree 167); ▪ Environment and social assessment instruments for hydropower projects (e.g. EIAs, EMPs) do not call for rigorous assessments of benefit sharing (or livelihood linkages of ecosystem impacts), or do in a limited way; ▪ Synergies between sustainable catchment management, sustainable agriculture, forest management, protected area management and sustainable management of hydropower assets recognized in policy have not been reflected in practice (e.g. Water, Environment and Forestry Laws). ▪ No explicit policy exists where PAP receive propriety access to project services (among the first to benefit); ▪ A comprehensive approach to decide which affected groups may benefit most from project services and those who would benefit from other basic infrastructure investments or support is lacking, or choice is not offered; ▪ Basin organizations that would otherwise play an important role formulating ecosystem management measures/benefit sharing arrangements that need a basin perspective are not functional. 	<p>Investments supported by benefit sharing improve rural incomes, while connecting to water resource and environment protection measures and steps to improve hydropower performance.</p> <ul style="list-style-type: none"> ▪ To advance multi-objective rural development, i.e. apart from enlisting PAP in sustainable management of hydropower assets, delivery mechanisms advance biodiversity conservation, raise rural incomes and improve equitable access to public services. ▪ Otherwise delivery mechanisms are tools to increase/ strengthen the capacity of PAP to play a concrete role in measures that require community support to: <ul style="list-style-type: none"> - In sustainable catchment management in the Water Law (1998) - MARD policies on integrated flood mitigation; - Community-bases forest management as provided in the Forest Laws - Protected area, and wetland conservation and management specified in environment laws (to the extent hydropower projects impact on these areas): ▪ The concept can help in preferential targeting of project services to PAP, within existing national programs and provincial funds (e.g. rural electrification capital and O&M support) ▪ On the whole, mechanisms financed by market principles (internalizing environment and social costs) help accelerate socio-economic development (of PAP) and reflect this primary goal of the Electricity Law (Article 1). 	<p>Local development programs that project-affected people can access remain ad hoc and time limited.</p> <ul style="list-style-type: none"> ▪ Fundamentally, a shift in thinking is needed to change from one-time compensation with short-term support for resettlement to viewing project-affected communities as partners in hydropower development, with preferences on delivery mechanisms and type of measures. ▪ Mechanisms may be too prescriptive or not be introduced with community-driven approaches ▪ Weak or contested criteria for allocation of available funds to different groups of PAP (e.g. upstream, reservoir area, displaced groups and host communities and downstream people adversely affected by river flow changes) ▪ Threats to public support for benefit sharing if funds and not transparently accounted for. <p>External Threats</p> <ul style="list-style-type: none"> ▪ Limited threats in respect to delivery mechanisms

Aspect	Strengths (Up to now)	Weaknesses (Up to now)	Opportunities (For the future)	Threats (Up to now + future)
<p>Introducing mechanisms to improve the management of ecosystem services</p>	<p>Current laws and policies provide a modern approach to conservation and improved management of ecosystem services. They recognize the important link of environment services to rural livelihoods.</p> <ul style="list-style-type: none"> ▪ The Energy Law specifically provides “the protection of the ecological environment” ▪ The Water Law (1998) provides modern IWRM approaches to water resource management will be pursued. <ul style="list-style-type: none"> - In a basin context where ecosystem management is most relevant (e.g. specifying components of sustainable catchment management and linking sustainable forest management); - IWRM reconciling different water uses, including functional ecosystems - Recognizing hydraulic functions of ecosystems (e.g. infiltration, buffers against drought and flood); - Establishing RBOs which will be important mechanisms to rationalize project-specific and basin level ecosystem management actions. ▪ Priority given to strengthening environment protection in the Politburo Resolution and Government Action Plan in the period of accelerated national industrialization and modernization (2004 and 2005 respectively). ▪ International Conventions to which Viet Nam is a Party provide tools and methodologies for managing ecosystem services transformed by hydropower projects. (Ramsar, CBD, in particular) and Decree laws on Wetlands. 	<p>Many ecosystem management policies established in primary legislation await secondary laws, or have yet to be implemented in a comprehensive way. Local capacity is an inhibiting factor.</p> <ul style="list-style-type: none"> ▪ Limited awareness / information on the economic and social value of ecosystem services, that underlies lack of attention to ecosystem impacts of hydropower, not only in Viet Nam, but more generally; ▪ Limited assessment tools. Instruments like EIAs, EMPs, etc. do not readily establish aquatic ecosystem management priorities, coupled with the lack of specific regulations or norms on environmental flow releases from hydropower projects (e.g. environment reserve flows); ▪ Limited connection between ecosystem functionality and livelihood needs in EIA/EMP assessments. ▪ Lack of explicit requirements for ongoing engagement between hydropower project management boards and project-affected communities after hydropower projects are commissioned on ecosystem management (e.g. limited monitoring). ▪ Limited community involvement in watershed and protected area management initiatives, as yetⁱⁱ; ▪ Limited consideration of environment mitigation and management costs in operation budgets (of PMBs), no provision to increment provincial budgets (DARDs, DoNREs, etc.) to cover incremental environment mitigation and monitoring costs resulting from hydropower projects. 	<p>Investments supported by benefit sharing improve and enhance local capacity for conservation and environment management.</p> <ul style="list-style-type: none"> ▪ Like other benefit sharing mechanisms, improvements in the management of ecosystem services transformed by hydropower projects have multiple benefits. ▪ Responds to the Politburo Resolution and Government Action Plan to strengthening environment protection in the period of accelerated national industrialization and modernization (2004 and 2005 respectively). ▪ Presents numerous opportunities to advance sustainable development in rural, mountainous and ethnic minority areas, e.g.: <ul style="list-style-type: none"> - links sustainable catchment management and biodiversity conservation to hydropower performance (e.g. via erosion/ sediment control with land-use / habitat improvements); - links hydropower management to downstream protected area management and to wetland area management; - introduces environment flow assessment techniques into the selection, design and operating strategies of hydropower projects. ▪ Provides opportunities to strengthen provincial and district level capacities and improve awareness of options. 	<p>Lack of effective action to put existing policies into practice (for ecosystem management) leads to continued environmental degradation by hydropower projects.</p> <ul style="list-style-type: none"> ▪ Progress can be slowed by lack of progress in introducing IRMB practices resulting in the continued fragmentation of responsibilities for sustainable catchment management; ▪ Fragmented or piecemeal approaches to inland fisheries management not taking into account the role of dams; ▪ Lack of financing to implement the ecosystem mitigation and management measures that are at present identified in project EMPs, that discourages initiative; Failure to update the family of project-level EIAs used to develop environment components of hydropower projects (i.e., SEAs, EIAs, EMPs, etc) <p>External Threats</p> <ul style="list-style-type: none"> ▪ Not many. ▪ Policies adopted in Viet Nam would likely be requested on international rivers. Likewise there would be pressure to apply practices adopted in the MRC

Aspect	Strengths (Up to now)	Weaknesses (Up to now)	Opportunities (For the future)	Threats (Up to now + future)
<p>Introducing sustainable financing mechanisms</p>	<p>Viet Nam's broader policy is to develop market mechanisms to advance stable resource management and socio-economic development. Policies on use of market mechanisms are well suited to financing benefit sharing.</p> <ul style="list-style-type: none"> ▪ The renovation of the economy introduced by Doi MOIT in the 1980's is reflected in primary legislation and reforms in all sectors of the economy. ▪ Power market reforms will be introduced in progressive stages (2005-2020) (Energy Law) and represent the key opportunity to write sustainable financing mechanisms into the new power market roles, fair to all hydropower entities. ▪ The new Forest Law (2004) introduces market mechanisms for benefit sharing between local communities and SFEs to sustainably exploit forest resources. ▪ Water utilization fees and environmental protection fees are authorized in primary legislation Water and Environment Laws). ▪ Politburo Resolution and Government Action Plan requires enterprises in all economic sectors to adopt mechanisms to provide environmental protection services financed by non-budgetary means. ▪ Broadly the policy environment is to utilize market mechanisms to the extent possible and reduce pressure on the state budget, limiting it use to sectors less amenable to market mechanisms. 	<p>There is no clear indication of how environment and social costs of hydropower development will be internalized in competitive power market reforms, particularly in bulk tariff schedules and structures.</p> <ul style="list-style-type: none"> ▪ Current laws require that environmental and social mitigation costs are reflected in project budgets. ▪ At the same time ongoing environment / social mitigation and management costs of operating hydropower projects are not covered budgets and measures are largely left to be funded by regular department budgets – which are over committed. ▪ There is no clear (indication) of a policy to routinely increase budgets of local departments to account for increase pressure from hydropower projects (additional expenses triggered). ▪ Similarly, there is no clear indication of a policy to target funds for rural electrification capital and O&M to people affected by hydropower projects, or to target the expenditure of water utilization fees ▪ Progress in implementing market-orient measures that in different resource management sector has been uneven, with perhaps the forest sector leading. ▪ Presently there is no specific guidance in the Electricity Law or the Major Decrees covering power market an tariff reforms on the extent to which long-term environment and social costs will be internalized in tariffs or follow market principles. 	<p>Financing mechanism(s) that contribute to optimal and sustainable hydropower development conform to competitive market principles. Reliance on state budgets is reduced.</p> <ul style="list-style-type: none"> ▪ To consider a variety of alternative financing mechanisms / incentives in Viet Nam's situation, for example, include: <ul style="list-style-type: none"> - "ring fencing" a portion of revenue from gross generation of hydropower projects each year; - Targeting a portion of fees levied on hydropower, water utilization fees or environment protection fees - Considering other financing instruments, e.g. municipal taxes and other levies; <p>(It is important to note that any mechanism directed at the hydropower project will eventually be reflected in the tariff.)</p> <ul style="list-style-type: none"> ▪ To consider targeting expenditures on rural electrification (capital and O&M) to communities adversely impacted by projects or "hosting" projects nearby. ▪ In parallel, to find mechanisms to fund environment protection actions as required by hydropower entities, line departments or basin organizations appropriate PPC decisions and reflecting the national policy framework (e.g. to maintain competitive power markets and a level field for hydropower investment). 	<p>The costs of benefit sharing are not argued successfully, and instead, are viewed as putting undue upward pressure on electricity tariffs. When a balance needs to be stuck.</p> <ul style="list-style-type: none"> ▪ Failure to gain provincial support. ▪ Failure to explain the difference between separation of social subsidy from tariffs (Electricity Law Article ___) and internalization of the environment /social costs in the project budget and tariff (e.g. Environment Law, Article ___). ▪ Failure to overcome perceptions / biases against extending support to project affected-people through a charge on the power tariff, where demonstrating the electricity tariff is financially viable to cover benefit-sharing is important, also as a criteria in setting levels. ▪ Failure to address misconceptions and legitimate concerns in framing policy on benefit sharing: e.g. <ul style="list-style-type: none"> - That provincial departments have sufficient financial resources to protect the environment and sustainable manage hydropower catchments; - That benefit sharing is unnecessary because PAP access to electrical services is enough. <p>External Threats</p> <ul style="list-style-type: none"> - Regional competitiveness for hydropower investment (reflecting the longer term need to harmonize benefit sharing formula)

ⁱ This is due to a variety of factors. At the same time, many of the new policies introduced by primary legislation are very relevant to the formulation of policies on financing and delivery mechanisms for benefit sharing and ecosystem management for hydropower projects. This is seen, for example, in the limited progress to date in establishing functional river basin organizations envisaged by the Water Law (1998). River basin organizations are relevant in the sense that benefit sharing and ecosystem management has different aspects that may be best pursued at project and basin levels, as shown by international experience.

ⁱⁱ E.g. on Decree 197 on resettlement and compensation; Decree 197 is otherwise progressive as it recognizes the need for restoration of livelihoods, but for a limited period of only one year.

ⁱⁱⁱ Viet Nam Water Partnership 2003, “In practice, constrains in budgets and especially, the awareness of the managers and lack of legislation framework, the programmes relating to identify and assess the outstanding social issues associated with existing large dams are established and implemented partly only, and not for all dams so that no processes and mechanisms are developed with affected communities to remedy them so far.

Appendix F: National Workshop Minutes and Overhead Presentations

First National Workshop

From the Workshop Report prepared by the Institute for Energy Studies, IES

MINUTES ON WORKSHOP: “ Vietnam’s Legislation and Policies Impacting on Benefit sharing”

Venue: 05 April 2007 from 08:30 AM to 12:00 PM
In Sunway Hotel, 19 Pham Dinh Ho street, Hanoi, Vietnam

Attending:

1. Steering Committee Members
2. TA Consultants: Mr. Lawrence J.M Haas and Dr. Dang Vu Tung
3. The representatives from Government Entities, EVN, Stakeholders, NGOs and IPPs...

I. Introduction

With ADB’s Technical Assistance, the Electricity Regulatory Authority of Vietnam (ERAV) is implementing “Benefit sharing Mechanism for Adversely Affected People by Power Generation in Vietnam” project. This project will review legislations and policies in Vietnam relating to displacement, resettlement, compensation of the adversely affected people by the hydropower generation; develop Benefit sharing Mechanism for them after the operation phase of hydropower plant; then develop a pilot project in a hydropower plan in Vietnam. Until now, Vietnam has compensated, displaced, resettled the people in hydropower area in design phase of a power plant project, but we do not have a clear mechanism to guide for benefit sharing in operation phase. Therefore, benefit sharing is a brand new and interesting issue in Vietnam.

II. Summary content of the workshop:

1. Opening speech: Mr. Pham Manh Thang – Deputy General Director of ERAV.
2. Presentation and leading Discussion on Benefit sharing Mechanism and the TA’s activities – Mr. Lawrence Haas, Consultant of ADB.
3. Presentation and leading Discussion on Findings and Conclusion on Policies review; integrated SWOT analysis (Strengths, Weakness, Opportunities and Threats) – Mr. Lawrence Haas, Consultant of ADB.

Each presentation lasted for 45 minutes, discussion in 30 minutes.

III. Main Content:

III.1. Benefit sharing Mechanism and the TA’s activities:

1. Mr. Vu Minh Duc(IUCN):

What is the procedure of negotiation for buying the Carbon portion?

Answer:

Buying Carbon portion is preceded according to the stimulation in KYOTO Protocol, in 3 ways:

- *According to Carbon Fund criterion of World bank, set by the Carbon Management Department;*
- *According to CDM Mechanism, all participant projects must register for reducing polluted emission;*

- *Directly join in the Carbon open market.*

2. Mr. Vu Van Trieu (IUCN) gave some information:

IUCN is a multi-nation Organization, with members from more than 700 NGOs and 150 Government Entities. IUCN is participating in developing these projects, and is willing to share the related information:

- The Law on Biodiversity (related to Benefit sharing Mechanism and payment for environment services – Guidelines ready);
- Water and Food Producing of Ecosystem Program (Sponsored by Netherlands);
- “Sustainable Development” (Presided by Ministry of Natural Resource and Environment)

He also advised some experiences in Vietnam, which can support to Benefit sharing Mechanism:

- Use the Natural Resource and Environment Fee (2% of revenue)
- Pay for the natural resource protecting people.

Development of Benefit sharing Mechanism is advantageous in under developing countries and developed countries, but it is hard to implement in developing country such as Vietnam. It needs to improve the knowledge standard for all the people, especially those who compose and approve the legislation.

3. Mr. Ho Viet Hao (Appraisal Department – EVN – SC’s member):

Supplement one package in stakeholders: the people who live in the place that the PAP who need to relocate will move to, since they have to share their land, natural resource for the resettlement. These people may live in neighbour province (outside the downstream area).

Answer:

We will put it in the pilot project.

4. Mrs. Ta Kim Oanh (Co-operative Management Department – Ministry of Agriculture and Rural Development):

Supplement the (monetary) support in order to motivate producing and rural livelihood such as: irrigation, occupation changing (support to livelihood) to stabilize people’s life (both resettlement and the native) in resettlement area .

Answer:

We will add this section in the project, and assess more carefully to classify Priority order in Financing Mechanism.

III.2. Polices review, integrated SWOT analysis (Strengths, Weaknesses, Opportunities and Threats)

1. Mr. Nguyen Manh Viet (Institute of Irrigation Science):

- What is the criteria to definite the sphere of affected area?
- Will Benefit sharing Mechanism support to the PAP by revenue or by hydropower asset?
- The finance delivering entity for benefit sharing needs to be determined, set for effectively using monetary sources and avoiding overlap in utilization.

Answer:

All of those parts will be taken into account in Component 2: Guidelines.

- About your first question, in international experience, there are two approaches to classify the affected people:

+ Considering all the people who live in the basin are eligible to receive the support from Benefit sharing.

+ Grouping them in small packages: in the upstream area; in project area and in downstream area. This work could be rely on the EIAs or the RAPs.

In the downstream area, the assessment on the impact of the hydropower project on the changing in flow needs a scientific models, which are available in North America and Europe.

- **About the second point**, Mr. Peter Meier from the World Bank had some explanations below:

- The recent tariff does not take into account the cost for benefit sharing and the affection from the downstream work loss, therefore it needs to have a mechanism to figure out the proportion in hydropower's interest for the affected people;

- It needs an equitable mechanism for the people in non-project area (in city, industry park) but they are the beneficiaries from the project and the directly affected people (benefit sharing type 1). In international experience, for the poorest area, the effective approach is to imply the Property Utilization Tax or the Concession on Accessing to Natural Resources Tax on hydropower project.

- **About the last one**, we agree with you, and will give you the answer after we have the result from rapid appraisals in Song Ninh and A'Vuong.

7. Mr. Nguyen Huy Cuong (Son La Synthesis committee):

- Should we divide the beneficiaries into two groups: The former is the compensated persons according to Decree 197/2004/ND-CP, the latter is the people who lived in reservoir area, in power plant area, or in the downstream area, according to the EIAs?

- Each power plant has its own scale. Hence, we need classification criteria base on the scale of the power plant. Benefit sharing for power plant will rely on these criteria.

- I suggest the Finance Management Agency must be in central level, the Provincial Agency should not be in charge for this assignment.

Answer:

- We will continue consider carefully to the requirement of definition the PAP in the EIAs. This issue should be solved in the next TA Component.

- Determination for benefit sharing proportion will base on international experience. Some countries calculate it by the water height, some rely on install capacity, but most of them base on the last-year electricity output. The delivering should also be based on Vietnam current programs support to benefit sharing, such as: 661 program, 135 program. We will try it in pilot project before establishing a full determination.

8. Mr. Huynh Le Trung (Power Engineering Construction Company No. 2):

- Vietnam Government has two Decisions relating to ethnic minorities:

+ Decision 132/2002/QD-TTg: Policy on land and property for the ethnic people.

+ Decision 134/2004/QD-TTg: Policy for the poor and the minority.

Due to the two decisions above, the compensation level would become very high, impacting seriously on the private investments, who have low financial potential, or impacting on the legitimate right of the people affected by these projects.

9. Mrs. Ta Kim Oanh (Co-operative Management Department – Ministry of Agriculture and Rural Development):

- Supplement the Agriculture on 9 categories need to be review for benefit sharing.

- You should refer more to Government Policy Framework by 135 program, Reducing Poverty Program for 2006-2010.

Answer:

- We will complement this issue into the report.

- We had referred to those programs when composing the Technical Note 2.

IV. Workshop Conclusion

V. Enclosure

1. Agenda
2. Opening speech
3. List of Participants
4. Copy of the Consultant's Presentation.

Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects in Viet Nam

Electricity Regulatory Authority of Vietnam (ERAV)
ADB TA-4689 (VIE)

First National Consultation Workshop

TA Project and Policy Review

April 2007

1

Contents of the Presentation

1. What is benefit sharing?
2. Overview of the TA
3. Stakeholder involvement in the TA & Key Messages
4. Next step of the TA: Component 2

Discussion on Part 1 followed by a Break

5. Viet Nam Policy Review: Approach + findings

Discussion on Part 2 and Closure

2

What is benefit sharing?

3

Viet Nam's Situation – Hydropower

- Electricity is seen as central to socio-economic development. Priority is given to hydropower development in Viet Nam's legislation.
- 13,000 MW by 2020. Many sites in upland areas, where national minorities live in conditions of extreme socio-economic difficulty.
- Policies now focus on one-time compensation and short-term resettlement support for displaced people (e.g. Decree 197).
- Awareness is growing, where:
 1. All people adversely affected by hydropower projects need support – including people upstream and downstream whose livelihoods or living conditions are adversely affected by hydropower operations.
 2. Local actions (by affected communities) can help to sustainably manage hydropower assets over the longer-term.

4

Source of Funds: Financing mechanisms used in other countries

A mixture of measures: e.g.

- Revenue sharing linked to bulk tariff or water charges
- Direct equity sharing – using return on equity as an income stream;
- Government budget transfers to affected municipalities and basin / watershed management agencies
- Levying property taxes on land of power facilities and reservoir
- Direct long-term contracts between the project & affected communities
- Preferential electricity rates for PAP or fees for water services
- Carbon financing (a new source)

Funds managed in various ways:

e.g via Trusts & Development Funds or by increments to existing development budgets / programmes that target affected communities

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Other experiences with revenue sharing

The level of financing must be practical, and:

- Balance local benefit sharing with effects on electricity tariffs
- Reflect principles of competitive power markets (level playing field)
- Be consistent with power market & tariff reform (advanced in progressive stages in Viet Nam)

In developed countries, benefit sharing can approach 20-40% of total monetary benefits (e.g. in Canada)

In developing countries, 2-5% is more typical. This often includes sustainable financing of the environment and social management components of the hydropower projects (operation phase).

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Overview of the Benefit Sharing TA

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TA Objectives + 3 Components

Component 1 Tasks

Policy Review: assess the extent Viet Nam's current laws and policies enable local benefit sharing, management of ecosystem services impacted by hydropower and sustainable financing of measures.



Component 2 Tasks

Draft Guidelines: develop guidelines to introduce benefit sharing into planning, implementation and operation stages of hydropower projects, drawing on experience from other countries; and



Component 3 Tasks

Pilot Project Work Plan: prepare a detailed work plan to pilot test the guidelines. This as a first step to formulate a long-term sector-policy framework.

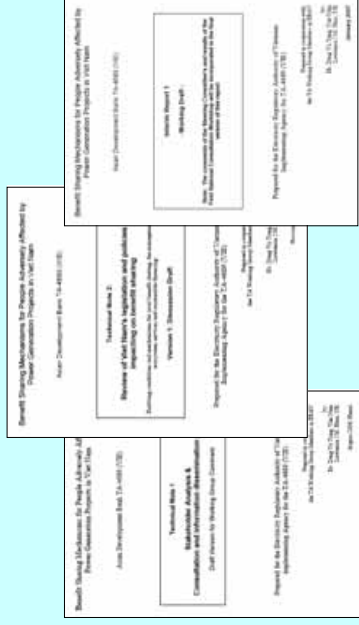
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Five Main TA Outputs

1. **Inception Report**
2. **Interim Report 1**
3. **Interim Report 2** - with the draft Guidelines Annexed
4. **Draft Final Report** - with the Pilot work plan Annexed
5. **Final TA Report** - expected by October 2007

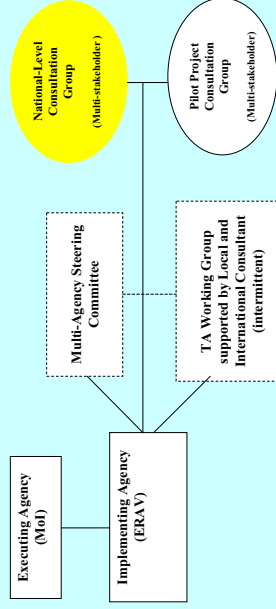
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Component 1 Reports (Prepared & Available)



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TA Structure + Dialogue Arrangements



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Stakeholder Involvement & Key Messages

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National Consultation Workshops

One for each TA Component:

Workshop 1 (today)	<ul style="list-style-type: none"> Information & awareness discussion & feedback on the policy review solicit stakeholder views on what the guidelines need to emphasize
Workshop 2	<ul style="list-style-type: none"> Information on the draft guidelines & feedback Understand degree of consensus solicit views on the design of the pilot project
Workshop 3	<ul style="list-style-type: none"> Information and feedback on overall TA results Solicit views on next steps Build support for the pilot project implementation (strategic and financing partners, etc.)

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Provincial / Local Consultation Workshop - In Component 3

- ❑ Introduce draft guidelines & Pilot Project aims
- ❑ Discuss outcome of 1-to-1 meetings with provincial stakeholders & focus group sessions with beneficiaries
- ❑ Discuss design proposals for the Pilot Project (e.g., the participation, level of funding, allocation criteria for grants, type of measures, monitoring and evaluation arrangements, etc.)

Collaborative design of the Pilot Project

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Key Messages

1. Benefit sharing is a policy tool many countries use to balance economic, social & environmental factors for sustainable development of the power sector
2. Goes beyond one-time compensation payments and short-term resettlement support. Treats local people who “host” a project as **legitimate partners** and **first among the project beneficiaries**.
3. Promotes hydropower development, while it complements other government strategies. For instance, as shown in other countries:
 - Can increase public acceptance of projects and reduces risks of costly project delay due to controversy
 - Reduce poverty risk of affected people and complements local development of national minorities
 - Improve capacity to mobilize international financing for hydropower

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Key Messages - Benefit Sharing (cont.)

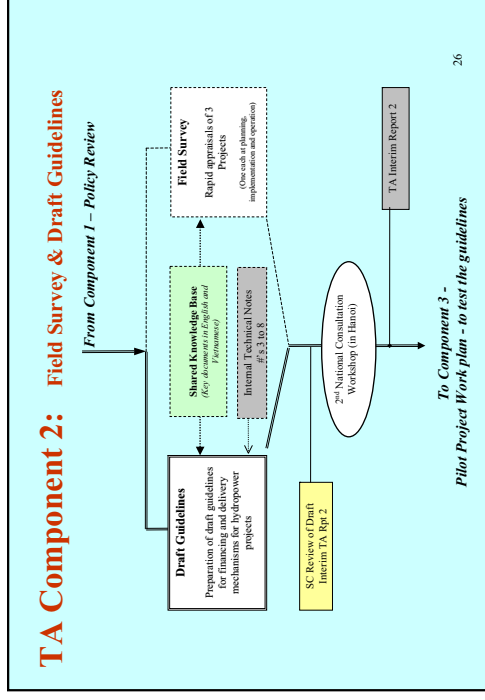
4. Financing mechanism seeks to internalize costs of social and environment components of hydropower projects in the electricity tariff (user pay principle)

Key aspect – enables consumers of electricity services in cities and industry to equitably share benefits of hydropower development with the project-affected communities (share full costs and risks)
5. Longer-term policy framework can be developed in stages parallel to the power market reform and tariff reform.

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Next Steps: TA Component 2

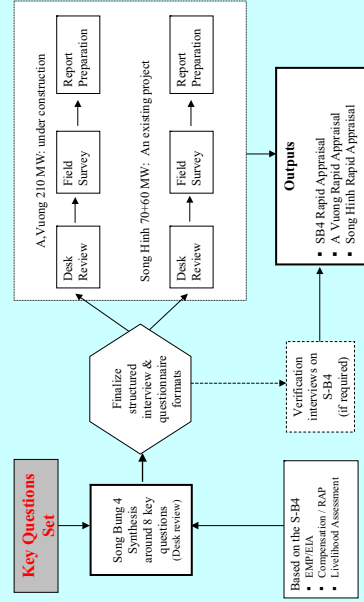
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Looking Ahead – the pilot Project

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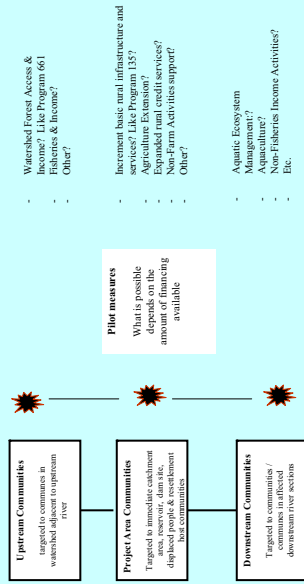
TA Component 2: The supporting Field Survey



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3 Packages in the Pilot Project

3 Packages ?

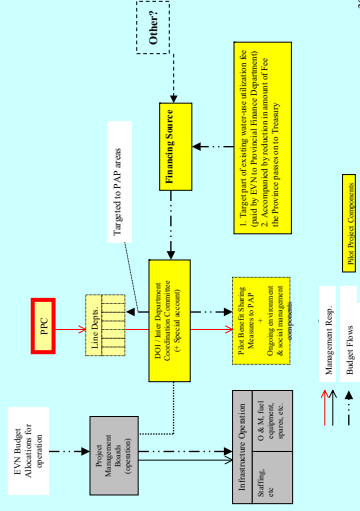


What % of available fund to allocate to each package

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Possible arrangements to implement the Pilot Project

- extrapolating current policy and practice



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Part Finance: Water Resource Utilization Fee?

Article 8 of Decree 179 (1999) on implementing the Water Law, "... the fee for granting water exploitation permits and the water use charge shall be used for the management and protection of water resources".

	Plant Cost (VND/annum)	Unit Price (VND/kWh)	Tax Rate (%)	Annual Tax (ml. VND)	USD Equivalent (000\$)
Song Bung-4	492	700	2%	6,888	431
A Vuong	938	700	2%	13,132	821
Song Hinh + Vinh Son	572	700	2%	8,008	501

Note:

- These are calculated on a monthly basis
- State Treasury at the province of hydro power plant shall distribute (allocate) the received tax to the locality based on the percentage regulated by MOF.
- Exchange Rate USD/VND = 13,000

• Rates from General Dept. Taxation (MOF) Later 4/45/CT-PTTT 15/Nov/2005

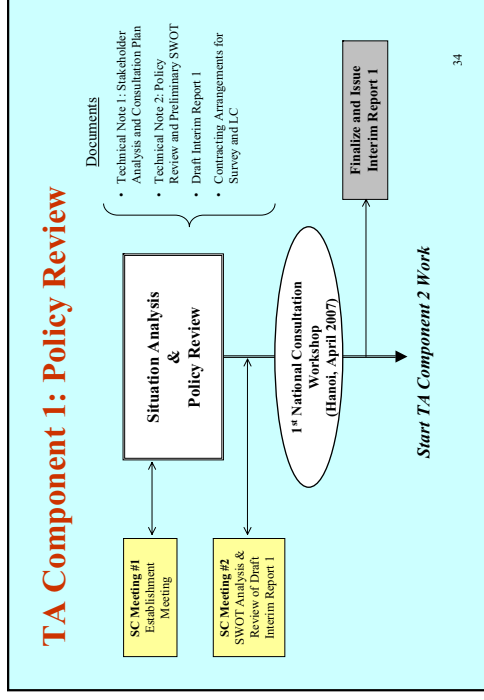
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Part 1 Discussion (Followed by a Break)

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Viet Nam Policy Review: The Approach and Findings

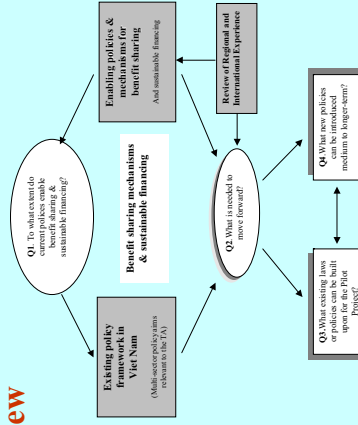
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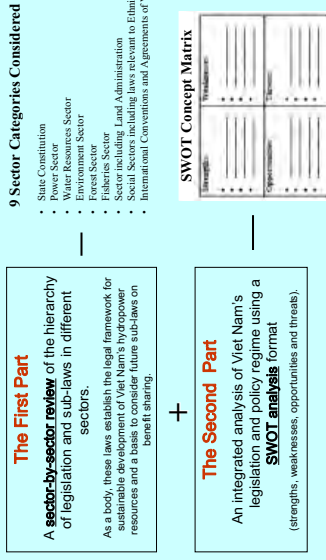
Analytical framework used for the policy review

Analysis structured around 4 key questions - Q1 to Q4 as shown in the graphic



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The Review was in two parts (summarized in Interim Report 1)



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Policy Review: Main Findings and Conclusions

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The sector-by sector review highlights:

1. Benefit sharing principles are recognized in Viet Nam's primary legislation and reflected in policies and decree laws in many sectors.
2. Three generic forms of benefit sharing are in the legal framework:
 - type 1 Equitably sharing project services
 - type 2 Sharing monetary benefits of resource use (revenue sharing);
 - type 3 Non-monetary forms benefit sharing.
3. All three types are reflected, to varying degrees, in primary and secondary laws in the power, water, forestry, and environment sectors – for example.
4. Benefit sharing complements key social policies (including Constitutional provisions) that give priority to development of national minorities and communes in areas of difficult or extremely difficult conditions.

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Some examples: in current laws

Type 1 – Equitable sharing of services: Electricity Law (2004, Article 5) on international cooperation: "economic integration in electricity activities is based on (each country's) respect for independence, sovereignty and mutual benefits." And within Viet Nam, laws stipulate equitable access to electricity services, and "... protect (mg) the legitimate rights and benefits of producers and consumers", Articles 4 and 46 of the EL.

Type 2 – Revenue Sharing of resource use: The Forest Protection and Development Laws encourage direct revenue sharing from forest product sales between local communities and State Forest Enterprises (SFEs) to "... ensure a harmonious benefit-sharing relationship between, on one hand, laborers and the State and the SFEs, and on the other, between SFEs and localities". Article 2 (item 3) of the PMO Decision 187, 1999.

Type 3 – Non Monetary Benefit Sharing: The Law on Environment Protection (LoEP, 2005) stipulates protection of biodiversity, including biodiversity resources adversely affected by projects must be implemented, "... based on the assurance of the rights and legitimate benefits of local communities". (Article 30). And, "... localities within river basins are jointly responsible for protecting water resources and ensuring benefits for local residential communities". (Article 39 of the LoEP).

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Policy links to the protection of water resources and the environment

Benefit sharing and related management of ecosystem services for people affected by hydropower projects is closely interconnected with protection of water resources and the environment in Viet Nam's legal framework.

Illustrations:

- The Water Law (1998, Article 39 and 2005) says "... building of water reservoirs must be ...linked with the protection and development of forests and the reproductive capability of the water source....".
- The LoEP (2005, Article 64) stipulates that, "... the construction, management and operation of reservoirs for irrigation and hydropower purposes must be integrated with environmental protection".
- The Electricity Law (2004, Article 4) requires "... (the application of) technology and science in electricity activities ...for ... protection of (the) ecological environment."

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In the Power Sector

Sustainable development of the power sector (including hydropower resources) is a central theme of Viet Nam's Electricity Law (2004, Article 4)

- Legally defined in Vietnamese Law as, **“development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs, on the basis of a close and harmonized combination of economic growth, assurance of social advancement and environmental protection”**. (LoEP, 2005, Article 3)

Sustainable management of hydropower assets

- Helps to maintain installed capacity and protect long-term revenue flows from the project (e.g. by reducing erosion and reduction of live storage by reservoir sedimentation) – can be self-financing - how much is case-by-case
- Measures not only raise rural incomes, but also provide market-based incentive to manage headwater forests called for in the Water Law, for example.

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Financing mechanisms are key

Since the State Constitution (1992, Chapter 2 on the economic system), all sector legislation promotes market mechanisms to manage state-owned natural resources in a stable manner and avoid sole reliance on State budgets.

Financing mechanisms for benefit sharing and related ecosystem management on hydro projects need to be harmonized with water resource protection and environment protection financing policies.

Potential Laws under active consideration that may be relevant are:

- Politburo's Resolution on environmental protection in the period of accelerated national industrialization and modernization (4-SCTW, 2004), and PMO Decision (342/005/QĐ-TTg)
- Environmental Protection Funds at local, sector and central levels, financed in part by, "... funds from organizations and individuals for prevention and restoration of adversely environmental impacts of their production, business and service activities"; (Circular No. 16/2005/TT-BTNMT, Article 11b; And Article 11c, where the State shall "encourage, support and create incentives and mechanisms to establish environmental protection funds".
- The forthcoming Environment Tax Law (expected in 2008)

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Regional Agreements + International Conventions have an influence on national laws

Some Viet Nam has signed already embody commitments to develop and manage hydropower projects in a sustainable manner, and translate these to national law. Specifically:

- to manage ecosystem services impacted by hydropower, and
 - to manage river flows affected by hydropower operations
- Like:
1. **The 1995 Mekong Agreement:** to manage hydropower developments (mainstream or tributary) and maintain agreed water levels in the Mekong system. It recognizes downstream hydrological impacts on fisheries productivity, functioning of wetland systems, capacity to manage floods and salt intrusion in the Mekong delta, etc.
 2. **The Ramsar Convention on Wetlands:** with commitment (resolutions) to link planning and management of hydropower assets to ecosystem services of wetlands adversely impacting on traditional water users in the river basin.

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The SWOT Framework

An integrated analysis of Viet Nam's legislation and policy regime using a SWOT analysis format (strengths, weaknesses, opportunities and threats).

Focused on four aspects:

1. Establishing consensus on benefit sharing policies (the policy principles)
2. Introducing mechanisms to deliver benefit sharing measures
3. Introducing mechanisms to improve the management of ecosystem services, and
4. Introducing sustainable financing mechanisms

SWOT Concept Matrix	
Strengths:	Weaknesses:
• _____	• _____
• _____	• _____
• _____	• _____
• _____	• _____
Opportunities:	Threats:
• _____	• _____
• _____	• _____
• _____	• _____
• _____	• _____

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Summary SWOT Analysis (one page version)

Aspect	Strengths (Up to now)	Weaknesses (Up to now)	Opportunities (For the future)	Threats (Up to now + future)
Feasibility of benefit sharing policies	Benefit sharing policies are implicitly recognized in Viet Nam's body of primary legislation in policies and decrees in many sectors.	While the broader principle is recognized, existing regulations do not call for sharing monetary benefits (revenue sharing) at the local level.	Benefit sharing and managing ecosystem services are used as a tool to improve economic, social, environmental dimensions.	The case for benefit sharing in hydropower projects is not clear. Measures will not be implemented or piecemeal approaches are adopted.
Introducing mechanisms to improve the sharing of benefits and revenue measures	Existing national/provincial rural development programs can allow revenue measures to be added to them. New delivery mechanisms are not required.	People indirectly affected by hydropower projects do not receive targeted assistance, or livelihoods are not improved. Some are adversely impacted.	Investments supported by benefit sharing can improve water resource and environmental protection and enhance hydropower performance.	Local development programs that are not connected to water resource and environmental protection remain at risk and time limited.
Introducing mechanisms to improve the management of ecosystem services	Current laws and policies provide a framework for the management and improved management of ecosystem services. They recognize the value of ecosystem services to rural livelihoods.	Many ecosystem management policies established in primary legislation are not implemented in a comprehensive way. Local capacity is an inhibiting factor.	Investments supported by benefit sharing improve and enhance local capacity for conservation and environment management.	Lack of effective action to put in place measures to address continued environmental degradation in hydropower projects.
Introducing financing mechanisms	Viet Nam's broader policy is to develop a more advanced and stable resource management and socio-economic market mechanism. A well-timed market mechanism is well suited to financing benefit sharing.	There is no clear indication of how hydropower development will be managed. Market reforms, particularly in bulk tariff schedules and structures, are needed.	Financing mechanism(s) that contribute to optimal and sustainable development conform to competitive market principles. Returns are improved and reduced.	The cost of benefit sharing is not argued successfully, and instead, are viewed as putting undue competitive market principles. Returns are improved and reduced.

Looking Further Ahead: Generic types of benefit sharing as core elements of a comprehensive long-term policy?

type 1 Equitably sharing project services: People adversely affected by hydropower projects are among the first to receive services from the project, possibly with preferential access or tariffs (first among beneficiaries). There may be scope to target support to project-affected people within the existing provincial budget allocations or national rural electrification programs (subject to PAP preference and electrical safety codes).

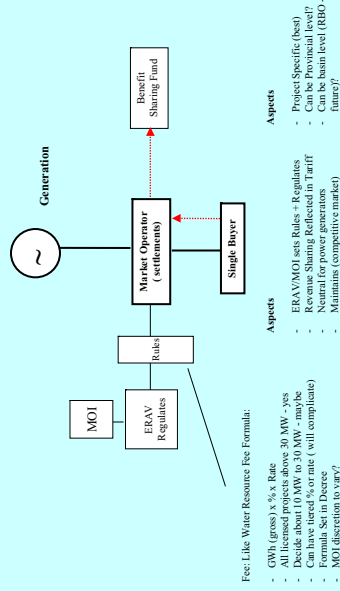
type 2 Sharing monetary benefits of hydropower generation (revenue sharing): Local communities that host hydropower projects receive a share of project revenue, according to a formula defined in regulations. This may support beneficiary-defined investments. Or fund measures to sustainably manage the hydropower asset and meet the project's environment and water resource protection obligations, like financing community-managed initiatives in watershed forests to plant, protect and sustainably harvest trees.

type 3 Non-monetary forms benefit sharing: Where people adversely affected by hydropower projects receive extra resource access entitlements (e.g. enhanced forest access rights; preferential or exclusive rights to reservoir fisheries, preferential rights to land downstream to practice freshwater aquaculture, etc).

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Funding Mechanism

Power Market in 2009



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A comprehensive long-term approach

- Three parallel tracks?
- Projecting from current policy directions.

Optimal/ Attribution	The Three Parallel Tracks (Based on the 3 types of benefit sharing)		
	Type 1: Monetary	Type 2: Monetary	Type 3: Monetary
Equitable access to project benefits	Equitable access to project benefits	Revenue sharing	Non-monetary benefits
Approach	Targeted support to project-affected people (e.g. rural electrification, health care, education, etc.)	Revenue sharing (e.g. benefit sharing, etc.)	Non-monetary benefits (e.g. enhanced forest access rights, etc.)
Policy	Targeted support to project-affected people (e.g. rural electrification, health care, education, etc.)	Revenue sharing (e.g. benefit sharing, etc.)	Non-monetary benefits (e.g. enhanced forest access rights, etc.)
Policy	Targeted support to project-affected people (e.g. rural electrification, health care, education, etc.)	Revenue sharing (e.g. benefit sharing, etc.)	Non-monetary benefits (e.g. enhanced forest access rights, etc.)

Part 2
Discussion

Second National Workshop

From the Workshop Report prepared by the Institute for Energy Studies, IES

MINUTES

Of the Second National Workshop on Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects in Viet Nam

Workshop Topic: Draft Guidelines

Venue: 8.30 to 12.30, Thursday, July 12th 2007
In Sunway Hotel, 19 Pham Dinh Ho street, Hanoi, Vietnam

Attending:

1. Steering Committee Members
2. ERAV representatives
3. Representatives from Government Entities, EVN, Stakeholders, NGOs, donors and Independent Power Producers
4. ADB Consultants: Mr. Lawrence J.M Haas and Dr. Dang Vu Tung
5. Representatives of Institute of Energy and NIAPP.

I. Introduction

With ADB's Technical Assistance, the Electricity Regulatory Authority of Vietnam (ERAV) is implementing the project "Benefit sharing Mechanism for Adversely Affected People by Power Generation in Vietnam" project. In the first of three components of this TA the legislation and policies in Vietnam relevant to benefit sharing and the establishment of a policy framework were reviewed. The first national consultation workshop was held on 12 July 2007 to present and discuss the results of the policy review findings.

In the second component of the TA, draft guidelines for benefit sharing were developed and rapid appraisals of three hydropower projects were undertaken. The purpose of the rapid appraisals was to draw lessons for preparing the guidelines (Song Bung 4, at an advanced stage of project preparation, A'Vuong, currently under construction and expected to be operational in 2008, and the Song Hind, a multipurpose hydropower project which has been operational since 2002).

The guidelines are prepared in the form of a proposed decree law (part 1) and an inter-ministry circular to guide the implementation of the propose decree (part 2). The purpose of this workshop is to present the proposed guidelines and invite comments from the relevant Ministry, Department, NGO and other experts in this area.

In the final phase of this TA, the work plan for a pilot project will be developed to test the guidelines. After that government will take a decision on finalizing sub-laws for benefit sharing. Benefit sharing and revenue sharing is a new topic for Vietnam, certainly in the power sector. It is a policy tool to advance sustainable development and management of resources. The process of developing and then

testing the guidelines for benefit sharing on hydropower projects is seen as a practical way to establish consensus on the best way to advance the sustainable development hydropower assets. As the policy review and notes, sustainable development is legally define in Viet Nam as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs, on the basis of a close and harmonized combination of economic growth, assurance of social advancement and environmental protection.¹

II. Summary content of the workshop:

- i). Welcome by Mr. Nguyen Vu Quang, Director of Planning and Licensing Dept, ERAV
- ii). Introduction speech by Mr. Pham Manh Thang – Deputy General Director of ERAV.
- iii). Presentation on the TA activity status and results of the rapid appraisal of three projects – Dr. Dang Vu Tung, Consultant of ADB.
- iv). Presentation and leading discussion on the draft guidelines – Mr. Lawrence Haas, Consultant of ADB.
- v). Conclusions and closing remarks: Mr. Pham Manh Thang – Deputy General Director of ERAV.

A copy of the PowerPoint presentation that was made for topics 2 and 3 above is available separately.

The subjects of presentation included the following:

- Refresh on Workshop 1
- Status of TA work
- Results of 3 rapid appraisals
- Proposed guidelines
 - Chapter 1. General provisions
 - Chapter 2. Process to introduce benefit-sharing mechanisms on hydropower projects
 - Chapter 3. Equitable sharing of electricity access and services
 - Chapter 4. Entitlements for enhancing resource access
 - Chapter 5. Revenue sharing arrangements
 - Chapter 6. General implementation provisions
- Next steps: Pilot project work plan

III. Discussion:

Mr. Ho Viet Hao (EVN):

Please clarify: Was the electricity price calculated at the connection point or at end-consumer?

Consultants Response: That supply cost was calculated at the point of connection to the grid. We can check again to verify that is correct. It refers to the breakeven cost (\$/Kw) for hydropower to be economically competitive with thermal options in Viet Nam was based on the recent avoided cost study prepared by consultants for ERAV (slide 20 in the presentation).

The breakeven cost (\$/Kw) or threshold was converted to an equivalent cost per Kwh using the avoided cost methodology developed for the Vietnam situation, for different power plant utilization factors (slide 25 in the presentation). The methodology uses marginal costs. The difference between the

¹ Definition from Article 3 of the Law on Environmental Protection 52/2005/QH11, 2005

marginal cost of generation from hydropower and the next cheapest thermal option was then calculated. This was compared to the weighted average end-user tariff recently proposed by ERAV for consideration by the government (890 VND / kwh), which would likely come into effect in 2008.

Mr. Vu Minh Duc (IUCN):

Arrangement to execute this mechanism should be clearly defined. Benefit sharing mechanism should be organized, implemented and monitored strictly to assure the transparency and equality between adversely affected people.

Consultants Response: Yes those aspects are very important. Provision is made for those factors in the draft guidelines. (See Chapter 4 Articles for the details on the financing mechanisms, delivery mechanisms and institutional arrangements)

It is also important to ensure that the provisions for the revenue sharing (e.g. the formula and financing mechanisms) is practical and understandable for all the people involved, and also it must be fully consistent with the competitive generation market rules that ERAV is now formulating for government consideration, based on the electricity law. (Article 5, 22 and 23)

The point you make about transparency in the financing and delivery mechanisms and how money is allocated to eligible parties, used and monitored is of central importance. The transparency issue will be discussed in the second part of this workshop.

Mr. Pham Manh Thang (ERAV):

The first workshop was to raise awareness of the importance of applying benefit sharing mechanism based on international experience. The consultant drafted guidelines on benefit sharing for Vietnam based on the review of Viet Nam's policy and legislation and information from rapid appraisals to obtain the use and ideas from local people adversely affected by hydropower projects. I would like to request the participants to concentrate on discussion on some of the following questions:

- To what extent will the Guidelines be developed: Decree or Circular?
- Scope of regulation and subject of application.
- Principles and problems related to benefit sharing.
- Comment on Guidelines' content, any issue need to be supplemented. .

Mr. Nguyen Van Song (NIAPP):

This TA has a nice objective and modern approach. However, it needs to clarify the establishment of the revenue sharing fund. Will this fund set up from the % of project revenue along project life aim to sustainably develop hydropower and not cover the cost for compensation and resettlement?

About the subject of application: the people who live in five areas (reservoir, dam, around the edge of the reservoir, upstream and downstream). In operation phase, the 2 former groups were compensated according to Decree 197, but the 3 latter groups were not calculated.

Therefore, those people need to be in prior in receiving the support (to develop infrastructure, cultural, social).

As regard to the implementation arrangement:

- A Fund Management Board need to be set up to appraise the grant application;
- Implement as a bottom-up procedure;
- Entity at State level will monitor the process.

Consultants Response: Yes the arrangements you describe are proposed by the draft guidelines, with a few minor differences. It is very important to ensure that people are clear on the difference between construction phase compensation and resettlement and long-term benefit sharing.

Presentation slide 5 illustrates the difference. As shown, resettlement (according to Decree 197) is applied during the construction phase of hydropower projects. It is short-term in nature. The resettlement and compensation cost is part of the project capital cost. Under Decree 197 support to resettled people is extended for one year, and in some cases for slightly longer periods (e.g. up to 2 or 3 years) on donors supported projects. As noted, decree 197 applies only to displaced people (with land recovered by the state) and to some extent to the resettlement host community. This information is provided in detail in the policy review in Interim Report 1 and was the subject of discussion at the last workshop.

On the other hand, revenue sharing is a long-term arrangement that applies to the operation phase of the hydropower project, and extends on a continuous basis over the economic life of the project and as long as the project operates. Revenue sharing formula as proposed is the guidelines is based on percent of gross revenue of hydropower project (see Slide 44 of the presentation and Article 23 for the revenue sharing formula).

Benefit sharing targets all communities that are adversely affected by the project and not just the displaced people and resettlement host community as shown in overhead 31 and as provided in the definitions in Article 3 of the guidelines.

The guidelines proposed establishment of a benefit sharing council, to administer and manage the revenue sharing on as well as monitored for an adviser on other non-monetary forms of benefit sharing discussed (Article 25) This is similar to the resettlement and compensation council that is currently established for each project under the decree 197 which the provincial people's committees are responsible for.

If a Fund Management Board is a better terminology to use that can be used in place of the benefit sharing council, however you have to be careful because the benefit sharing council looks after the other forms of benefit sharing in addition to the revenue sharing fund.

The draft guidelines are very clear in stipulating what groups of people are eligible for benefit sharing and eligible to participate in the revenue sharing programs. (Article 26 and 27) We would invite your comment on the definitions that are provided. All people who adversely affected by the project will initially be considered. Then the Benefit Sharing Council will put forth the criteria to identify the eligible parties and the principle to allocate revenue sharing fund.

The Guidelines also provided the maximum level to be 30% of revenue sharing fund for the official resettlement sites and host community's under Decree 197 (see Article 27 in the guidelines). This article also make provision for this to be revised by Authority in special cases only, where there is an exceptionally large number of displaced people. However that will be an exception basis rather than normal practice

Mr. Nguyen Cong Lan (NIAPP): - Steering Committee Member Representing MARD

The guidelines should be in from of a Decree for two reasons: the first is Vietnam has Decree 197 stipulate in compensation and resettlement in short-term, therefore this guidelines should be a Decree because it works in long-term; secondly, this guidelines related to many Ministry, sectors and People Provincial Committees.

I would propose a few amendments to specific articles:

- Article 5.1: delete the word “land” because “resource” covers land; in Article 5.4: clarify the average provincial levels in how many years.

- Article 11: Each Revenue sharing fund has a benefit sharing council. So should we merge them into only one fund only and those councils into one council. Then we will stipulate the function and obligation of this council.
- Article 18: The project affected people mainly live in remote area and they are minority ethnics. Therefore we should study more on culture and feature of each minority ethnic in affected area.
- Recommend there should be ERAV's representative in Benefit sharing council.
- Article 38 stipulated the responsibility of hydropower. So should we use the term "responsibility of EVN"?
- The accumulation and exchange international experience should not be limited in Asia.

Response:

Yes. We would review and incorporate the suggestions in the draft guidelines.

Another important aspect these comments highlight is the need to be clear about the definitions. How are project affected people defined and how are people eligible to participate in benefit sharing and revenue sharing programs define (i.e., eligible parties). The definitions that are provided in Article 3 seek to provide this clarity. International experience shows this is one area that can continue to cause confusion until the differences in the definitions are clearly recognized. In this case, project affected people is not limited to displaced people and the resettlement host community. It applies to all communities and houseboats in project impact zone has established by the EIA where people have their resource access reduced, transformed or lost to some degree or another.

Mr. Tong Cong Phi (Ministry of Finance):

The issue of Decree 197 on compensation and resettlement is based on Land Law. So which Law will this Decree be based on?

The revenue sharing (propose will be form by 2% of hydropower's revenue) will decrease the revenue of hydropower. So is it consistent with the State Law on Taxation and other related Regulations (e.g.: VAT tax is equal to 10% of revenue)? If we deducted 2% for benefit sharing, the revenue would come to 98%, lead to the decrease in VAT. Is it consistent with State Law on Taxation?

Consultants Response:

Yes very important. It is expected the decree will be based on Electricity Law (2004). Articles in Decree must also be consistent and link to other primary legislation, and in particular the Law on Environment Protection, Law on Water Resource Protection and the Land Law. These aspects are discussed further in policy review in Interim Report 1.

In respect to the State Law on Taxation, it is anticipated revenue sharing will be treated in the same manner as the water resource utilization fee is treated today. But we would seek and defer to MOF advice on this aspect.

To illustrate the effect on tariffs, if government decided to apply 2 percent of gross generation to revenue sharing (similar to the existing 2% water resource utilization fee), this would affect the electricity tariff by roughly ½ of 1 percent (0.5%), which the end-consumer will pay (not the project entity). And shown in slide 25 in the presentation, the current average retail tariff projected from 2008 is 890 VND.

ERAV will also have the option of applying different rates to different tariff blocks as long as the full amount decided is recovered from tariff in an equitable way.

The mechanism thus establishes the benefit sharing relationship provided in Article 1 of the guidelines, "1.1 This Decree provides for equitable sharing of benefits arising from sustainable development of the nation's hydropower resources", and "1.2 The Decree establishes a long-term revenue sharing arrangement between the main consumers of electricity services in towns, cities and industry and the local communities hosting hydropower projects who are adversely affected by the project in their locality."

Mr. Pham Anh Dung (MONRE): - Steering Committee Member

According to Law on Environment, all hydropower projects that have reservoir with more than 1 million m³ capacity requires and EIA. Indeed, there needs to be a clear regulation on projects with install capacity below 30 MW but requiring an EIA?

With the basin in area of more than one province, please consider to establishment of the Fund Management Board based on the Basin Management Board.

According to Vietnam's rules, Decree must be approved by Government based on Law and adopted by Parliament, therefore we need to consider will it need to revise some law to validate the development and issuance of this Decree?

Consultants Response. Yes we will take these comments into account in finalizing the draft of the guidelines.

One way to address the first point is to amend the scope of application in Article 2 to include all hydropower projects with the legal requirement for an EIA. Or possibly say all hydropower projects about 30 MW or with the legal requirement for an EIA. The 30 MW simply reflects the definition of small Hydro in Vietnam (which has some implications for the competitive market rules), but with this modification the governing factor would be projects that require EIAs. We believe that would be consistent with the guidelines more generally.

The question of benefit sharing at the project level and basin level is also very important and the question of projects that impact on more than one province. While the guidelines make provisions for these aspects we will review and amend the articles based on your comments.

International experience also shows it is increasingly common to assign the management of Revenue Sharing Fund to the River Basin Management Board, when managing a multiple hydropower projects in river basin either with one province or with many provinces. This is because it is necessary to take into consideration the influence/impact of each project as well as the cumulative impact of all the projects in the same river basin.

The guidelines currently provide for participation of a representative of the river Basin organization (where they exist) on the benefit sharing council (Article 25), and over the longer-term it stipulates the state would encourage a stronger role for river Basin organization in benefit sharing as these organizations become functional in Viet Nam (Articles 12 and 32).

Article 30 deals with projects that impact on more than one province. This can be amended according to the recommendations of MoNRE.

Another aspect is in article 32 the medium-term to longer-term option of linking or merging project specific funds for revenue sharing, environment protection and water resource protection is addressed (see presentation slide 46). This may also have some implications for action at the river basin level.

Mr. Pham Manh Thang (ERAV):

Mr. Dung, could you clarify whether the River Basin Management Board will also undertake the responsibility of Revenue Sharing Fund or of Benefit Sharing Council?

Mr. Pham Anh Dung (MONRE):

Revenue sharing fund, but this proposal should be applied only to the river basin, which belongs to many provinces.

Observation by Ms. Pham Kim Hoan – ERAV

On the question of what type of legal instrument is needed for benefit sharing, the Decree is composed with the aims to:

- *To apply existing Laws (primary legislation);*
- *To regulate the relationships that arise in practice.*

For this reason, if this mechanism is necessary, it is completely feasible to compose the Decree.

Ms. Nguyen Thi Yen (IUCN):

The Guidelines should be finalized in form of a Decree because of its impact on many ministries, services and branches. Moreover, The Law on Forest Protection and Development defines the benefit-sharing to develop forests. Biodiversity Law (being composed) also mentions the issue of environmental services payment relating to benefit-sharing.

On amending the guidelines:

- Please define more clearly about the concept “adversely affected groups in the project impact zone”
- Please consider the viewpoints relating to the protection and development of forest and water sources in benefit-sharing implementation activities.

Consultants Response: We agree with Ms. Yen’s recommendations. Indeed these issues are already mentioned in the draft. We can revisit those definitions to strengthen them. So we expand on the definition of ecosystem services, for example, in part2 of the guidelines, which is the draft into ministries circular. This largely follows the definition provided by IUCN and approved by MoNRE.

The draft also proposed the combination of funds (water, other resources, and benefit-sharing). Nevertheless, the practicability of implementing this combination should be taken into account.

It is hoped there will be strategic partnership with organizations like IUCN and WWF during the implementation of pilot project, particularly those organizations that already have working relationships with the province where the pilot takes place. This partnership approach will help ensure that all the concepts and practical experience different organizations have can be reflected in the pilot project or the lessons that are drawn from pilot project. This will help improve the effectiveness of provisions in the decree that is eventually proposed.

Mr. Nguyen Van Dinh – Independent Consultant

The Guidelines showed almost the affect on people and environment of hydropower project. However, there were some points, which need to be supplemented and clarified as below:

- The scope and level of affect of Song Bung 4 project;
- Social economic conditions and livelihood of the project affected people;
- Functions and ecosystem services affect to project affected people livelihood;
- Project’s affect on life and livelihood of people in affected area.

Response:

We will review and integrate your suggestions in the guidelines to the extent possible.

I would like to clarify that the rapid appraisals discussed in slides 12 and 13, which you refer to in your question, have already been completed.

I am pleased to say that the rapid appraisals did address the points you have mentioned, plus they were structured to answer a number of other questions about the positive and adverse impacts of each hydropower project in question and local perceptions for revenue sharing including what sort of preference they would have for the delivery arrangements and the types of measures to be eligible for support. The rapid appraisals are available upon request from ERAV.

Conclusion (Mr. Pham Manh Thang - ERAV)

- After this workshop, there will be other workshops at local level in order to recommend and apply A'Vuong pilot project.
- The Steering Committee will finalize the draft guidelines after implementing the provincial workshop, and the final workshop will be held in Hanoi.
- Organizations are kindly requested to send their feedbacks by official letter during the project implementation because of the essence of this project.
- The President, after a visit to Tay Nguyen region, also requests hydropower projects to provide sustainable support to the development of province/region.

IV. Closing the workshop

V. Attachments

1. Agenda
2. Opening speech
3. List of participants/representatives
4. Consultant's presentation

Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects in Viet Nam

Electricity Regulatory Authority of Vietnam (ERAV)
ADB TA-4689 (VIE)

Second National Consultation Workshop

Draft Guidelines for Benefit Sharing

Hanoi, 12 July 2007

1

Presentation Contents

1. Status of the TA
2. Proposed guidelines
3. Next step: Pilot project work plan

2

Status of the TA

3

TA Objectives + 3 Components

Component 1 Tasks

Policy Review: assess the extent Viet Nam's current laws and policies enable local benefit sharing, management of ecosystem services impacted by hydropower and sustainable financing of measures.



Component 2 Tasks

Draft Guidelines: develop guidelines to introduce benefit sharing into planning, implementation and operation stages of hydropower projects, drawing on experience from other countries; and

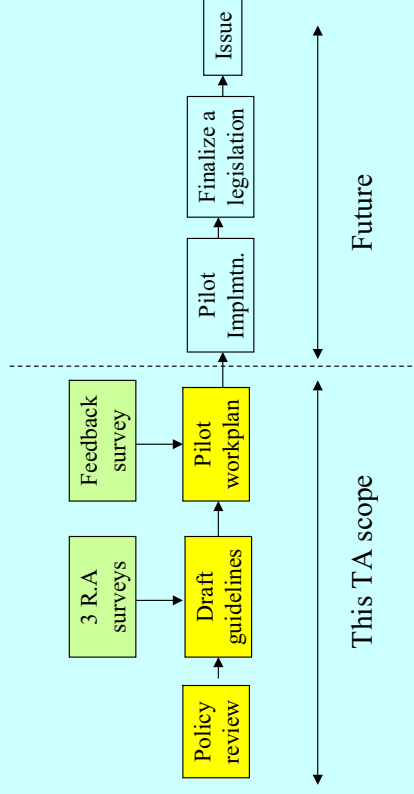


Component 3 Tasks

Pilot Project Work Plan: prepare a detailed work plan to pilot test the guidelines. This as a first step to formulate a long-term sector policy framework.

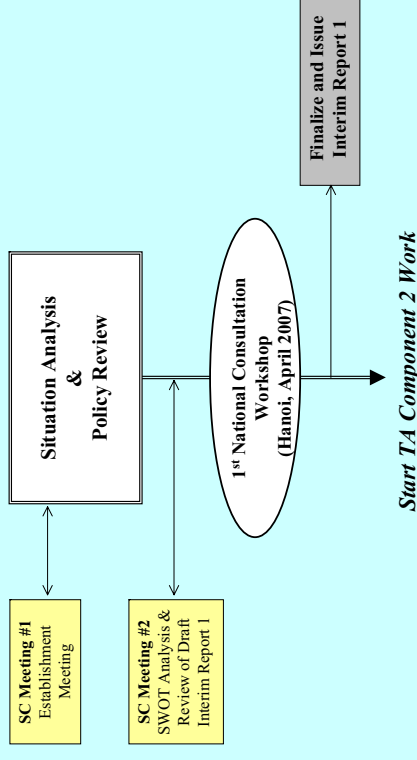
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TA Scope



5

TA Component 1



6

Some policy review highlights

1. Benefit sharing principles recognized in Viet Nam's primary legislation and policies and decree laws in many sectors.
2. Three generic forms of benefit sharing reflected in the legal framework now:
 - type 1 Equitably sharing of electricity access & services
 - type 2 Entitlements for enhancing resources access
 - type 3 Revenue sharing
3. All three reflected, to varying degrees, in primary and secondary laws in the power, water, forestry, and environment sectors .
4. Complements key social policies (including Constitutional provisions) for priority development of minorities and communes and areas of difficult or extremely difficult socio-economic conditions.

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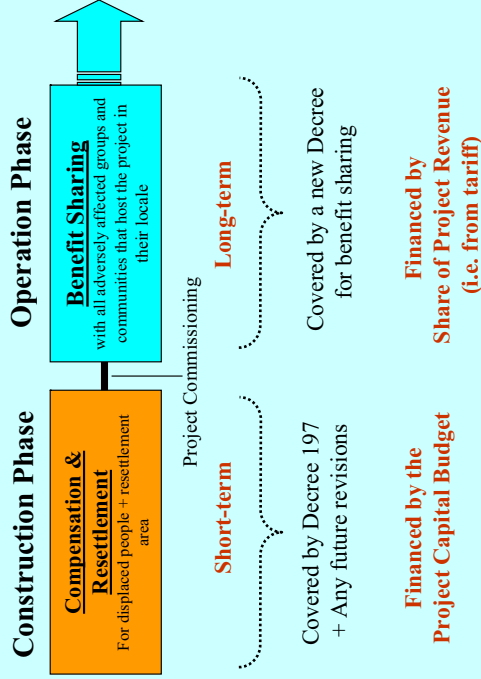
Major considerations

Benefit Sharing as a policy tool

- To advance sustainable development of hydropower
 - “development meeting needs of the present generation without compromising the ability of future generations to meet their own needs, on the basis of a close and harmonized combination of economic growth, assurance of social advancement and environmental protection”. (LoEP, 2005, Article 3)
- To treat local communities as long-term partners
 - Incentive for local action to sustainably manage hydropower assets and help maintain long term revenue flows from the project
- To have other comparative advantages (e.g.)
 - Risk reduction for all stakeholders including investors
 - Mobilizing capital - enhanced access to international finance

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Benefit sharing – on Hydropower projects



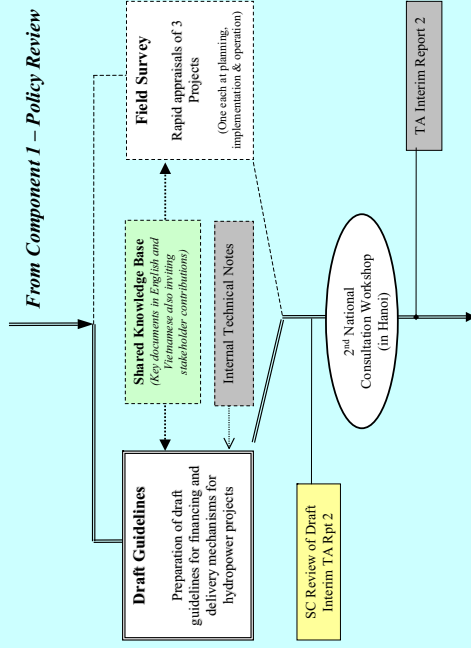
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TA Component 2



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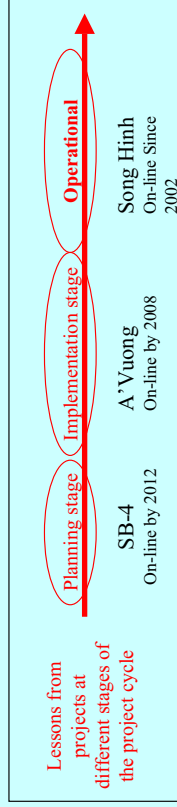
TA Component 2: Field Survey & Draft Guidelines



To Component 3: Pilot Project Workplan - to test the guidelines

11

Key Results - Rapid Appraisals



Common themes:

- Adverse impacts on livelihood & income felt (or expected) throughout the project impact zone – to varying degrees – not just for displaced people and resettlement area
- Preferences for use of revenue sharing funds vary by location in the project impact zone
 - (I.e. reservoir area, resettlement zone, upstream/downstream zones)

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Key Results of 3 Rapid Appraisals cont.

Common Themes : cont.

- Interest in a range of infrastructure and services;
- Concerns about take-up of electricity services, Especially among poorest & low electrification e.g. 33% in some areas
- Interest in expanding entitlements for resource access for income generation & diversification
- Delivery preferences vary between mass organizations and government programs
- Almost all women wanted the women's union to participate to ensure woman's interests
- Strong preferences for bottom-up process to decide investments made from revenue sharing

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Proposed Guidelines

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Guidelines: Timeline Context



Approach :

- Develop the guidelines
- Form a legislation (e.g. a Decree and/or an Inter-Ministry Circular)

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Key Elements of Guidelines

1. State encourages 3 forms of benefit sharing
2. Project-specific revenue sharing fund
3. Benefit sharing council
4. Eligible parties defined for benefit-sharing
5. Grant application procedure for revenue-sharing investments – bottom-up philosophy for selecting investments

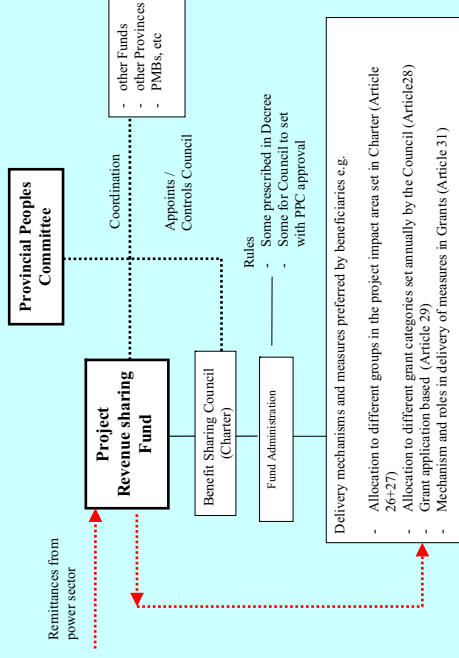
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Fundamental Aspects of Revenue Sharing

1. Revenue sharing **is** a relationship between electricity consumers (cities, towns & industry and affected people (poor rural areas), i.e.
 - *is reflected in the tariff*
 - *is a pass-through in respect to the hydropower entity*
2. Revenue sharing **is not** between the hydropower entity and affected people.
 - *except to extent investments made by revenue sharing help to stabilize long-term generation and revenue (mutually beneficial)*
 - *and can not be profit sharing based.*

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Revenue Sharing Funds



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Key Questions – Before Break

Revenue sharing component:

1. Can hydro internalize social & environmental costs and remain competitive – economic rent ?
2. Within the hydro portfolio - how can a level playing field be best maintained ?
3. What level of revenue sharing is optimal in Viet Nam – balancing impact on tariff ?

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Hydro Cost Competitiveness in Viet Nam

Generator Type	CCGT	Coal - domestic		Coal - imported	Hydro	Competitive threshold for Hydro (Max)
		South	North			
Variable energy costs	\$/MWh	23.8	8.5	18.7	0.0	\$/kWh
Capacity costs	\$/MW/year	100,257	173,953	145,902	197,888	1,210
Average cost	\$/MWh					1,603
Plant factor						2,057
50%	46.7	48.2	52.0	45.2	2,048	
55%	44.6	44.6	49.0	41.1	2,152	
60%	42.9	41.6	46.5	37.6	2,190	
65%	41.4	39.1	44.3	34.8	2,227	
70%	40.1	36.9	42.5	32.3	2,264	
75%	39.1	35.0	40.9	30.1	2,301	
80%	38.1	33.3	39.5	28.2	2,339	
85%	37.3	31.9	38.3	26.6	2,376	
90%	36.5	30.6	37.2	25.1	2,413	
Calculated using average cost of marginal generator Without emission cost on thermal						

Source: data from avoided cost study ERAV 2007

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Economic Rent - International Competitiveness

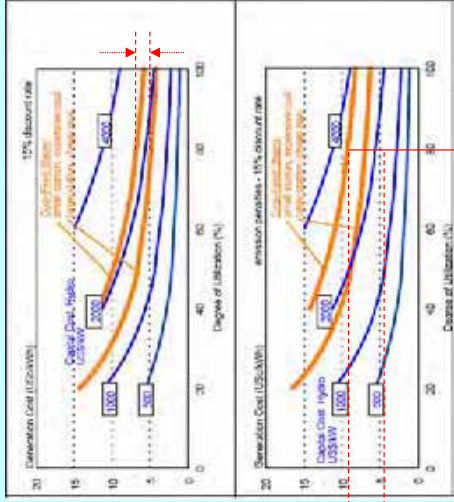
Example of large hydro versus coal generation

International General (2000 energy prices)

Vietnam Hydro Examples

MW	Cost \$US Million	\$/kw
AVuong	254	1,210
SB4	250	1,603
Son Hinh	144	2,057

SH includes irrigation component



Greater than 10% generation cost

Source WCD 2000

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Hydro Competitiveness

Since 2000: Hydro competitiveness against thermal increased

- International energy price increases and tightening of market
- Regional energy security importance
- Debt due to energy imports
- Upward pressure on Co2 emission reduction credit values

Economic Rent - International Competitiveness

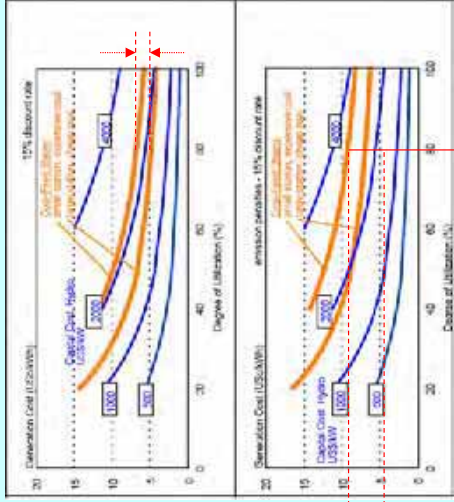
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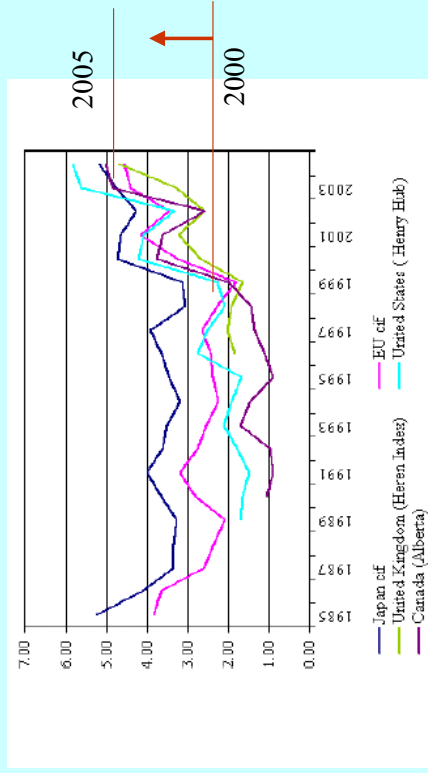


Greater than 10% generation cost

Source WCD 2000

22

International gas prices (US \$ per million BTU), 1985-2004



Source: UNCTAD based on data from BP Amoco, Statistical Review of World Energy 2005
 Note: Japan cif is for LNG

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Ancillary Benefits Valued

Break-even values can be increased by \$200-500 (international) if hydropower plant provides appreciable dynamic benefits (ancillary services) to the power system, such as:

- rapid load following capability;
- frequency and voltage control;
- VAR control;
- coping with sudden major load increase and decrease (i.e steep ramp rates);
- synchronous condenser operation;
- system black start; and
- smoother operation and lifetime extension of thermal plants.

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Room for Revenue sharing in Viet Nam

Plant Factor	Competitive Threshold \$/KW	Present Room	
		SUS cents / kWh	% average tariff
50%	2,048	0.15	2.7%
55%	2,152	0.35	6.3%
60%	2,190	0.39	7.1%
65%	2,227	0.43	7.7%
70%	2,264	0.46	8.3%
75%	2,301	0.49	8.7%
80%	2,339	0.51	9.1%
85%	2,376	0.53	9.5%
90%	2,413	0.55	9.8%
<i>Calculated with av. cost of marginal generator Without emission cost on thermal</i>			
10% Discount Rate			
Average tariff		890 VND	Planned

Room Needs to Cover

- Revenue sharing + water resource fee + environment protection fee ?

Room Increasing

- VN moving to international fuel price levels
- Upward pressure on international energy prices
- Adding thermal emission penalties
- Adding hydro ancillary benefits²⁵

Balance of Factors

- VE	Δ	+ VE
<ul style="list-style-type: none"> • Rebalancing RE priorities? ? • Few? ? • Tariff impact? ? • Level of affordability? ? 	<p><i>Equitable sharing of electricity access and services</i></p> <p><i>Entitlements for enhancing resource access</i></p> <p><i>Revenue sharing</i></p>	<ul style="list-style-type: none"> • No new RE financing requested? • Flexible approach? • Local boost + equity? • Low cost • High local impact • ? • Significant local development impact • Can increase hydro financing access • ?

—26—

Coffee Break

then

Part 2

Guideline Decree Chapters - Proposed

- Chapter 1. General provisions
- Chapter 2. Process to introduce benefit-sharing mechanisms on hydropower projects
- Chapter 3. Equitable sharing of electricity access and services
- Chapter 4. Entitlements for enhancing resource access
- Chapter 5. Revenue sharing arrangements
- Chapter 6. General implementation provisions

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Chapter 1: General provisions

Scope

- Normal scope, subject of application and definitions
- Objectives, principles and forms of benefit sharing

Principles

- All grid connected projects above 30 MW (+ those requiring an EIA)
- Provides 3 forms of benefit sharing (equitable access, resource access entitlements and revenue sharing)
- Definition of adversely affected communities (eligible parties) linked to project impact zones in EIAs and RAPs
- Links targets for poverty reduction in project impact zone with the national / provincial poverty rates.
- Links principles and objectives to existing Laws and sustainable hydropower development

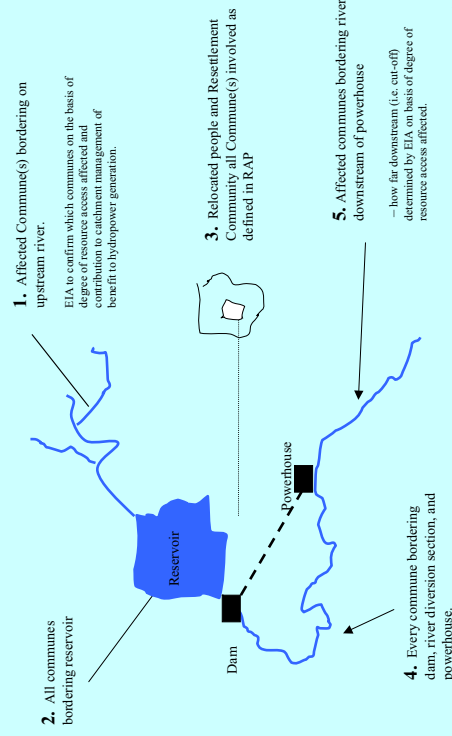
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Chapter 1 Articles

- Article 1: Scope of the regulation
- Article 2: Subject of application
- Article 3: Definition of key terms
- Article 4: Objectives of benefit sharing on hydropower projects
- Article 5: General principles of benefit sharing
- Article 6: Forms of benefit sharing encouraged on hydropower projects

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Definitions include who is adversely Affected – “Eligible parties” in project impact zone



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Chapter 2: Process to introduce benefit-sharing mechanisms on hydropower projects

Scope

- Steps from the early stages of project cycle
- Indicates why and responsibilities.

Principles:

- Links benefit sharing assessments to strategic studies for hydropower ranking and basin studies (**project selection**)
- Incorporates benefit sharing assessments in feasibility study & identifies “least cost” approaches (**project design**)
- Begins discussion with adversely affected groups during consultation on EIA and R&C measures;
- Preparations for all 3 forms of benefit sharing.

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Chapter 2 Articles

- Article 7 Steps to factor benefit sharing into all stages of the project cycle
- Article 8 Procedures to adopt during strategic planning and project planning stages
- Article 9 Procedures to adopt during project design and implementation stages
- Article 10 Procedures to adopt on existing hydropower projects
- Article 11 Fundamentals of benefit sharing during project operation
- Article 12 Relationship between benefit sharing and river basin planning and management

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Chapter 3: Equitable sharing of electricity access and services

Scope

- Steps to target project affected communities within existing rural electrification programs + budgets
- Consistent with Electricity Law

Principles:

- Mandatory for all projects (public, IPP, other) to electrify resettlement areas;
- Priority consideration of electrification in other impact areas or improve/modernize supply;
- Requirement to evaluate off-grid potential, when grid connection is uneconomical.
- Encourage support measures for poorest groups, including support for connection costs, power safety, etc.

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Chapter 3 Articles

- Article 13 Capital costs for electrification of resettlement communities in project budgets
- Article 14 Targeting of existing rural electrification funds to other adversely affected groups in the project impact zone
- Article 15 Off-grid supply in areas uneconomical to connect to the grid
- Article 16 Additional measures to enhance electrification support for the poorest groups
- Article 17 Organization for implementation at state and provincial levels

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Chapter 4: Entitlements for enhancing resource access

Scope:

- Steps for non-monetary forms of benefit sharing
- Indicates why and responsibilities

Principles:

- Encourages People's Committees at all levels to formulate an explicit policy of support (take account of issues)
- Local preference based
- Range of measures can come into play including low-cost / no-cost measures
- Encourages systematic procedures to consider preferences
- Progress monitoring (by benefit sharing council)

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Chapter 4 Articles

- Article 18 Types of measures for enhancing resource access
- Article 19 Planning for local infrastructure investment and rural development extension services
- Article 20 Provincial level policy to support enhancement of entitlements for resource access

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Types of Measures in Article 18

- Enhanced agro-forestry and forest access rights
- reservoir fisheries policy / access rights
- land use rights to practice aquaculture
- access to vocational training for job changes
- start-up local businesses e.g. ecotourism /other opportunities created with formation of reservoir
- deferment / reduction of local taxes and fees to establish alternative income generation
- other entitlements to materially assist improvement in health, culture, and quality of life

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Chapter 5: Revenue Sharing

Scope:

- Steps and procedures for revenue sharing
- Procedures for projects impacting on more than one Province
- Roles and responsibilities

Principles

- Revenue sharing based on tariff (pass through - not a cost to project)
- Formula similar to existing water utilization fee
- Project-specific revenue sharing funds (like LoEP)
- Benefit sharing councils - under PPC control similar to compensation & resettlement councils under PPCs (Like Decree 197)
- Simple grant applications procedure to award grants to eligible parties up to cap for agreed categories

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Chapter 5: Revenue Sharing cont.

Principles, cont.

- Encourages PPCs to merge project-specific funds for hydropower as practical measure
 - 3 funding windows with separate accounts
 - benefit sharing
 - water resource protection
 - environmental protection
 - MOI and MoNRE regulate different windows
- Recognize link with river basin management (especially where multiple hydropower projects in basin)

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Chapter 5 Articles

- Article 21 Types of measures supported by revenue sharing
- Article 22 Financing mechanisms
- Article 23 Financing formula
- Article 24 Establishment of project-specific revenue sharing funds
- Article 25 Functions, duties and composition of the benefit sharing council

... continued

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Chapter 5 Articles Cont.

- Article 26 Determination of groups eligible to apply for revenue sharing grants
- Article 27 Principles for allocating revenue sharing funds among eligible parties in different areas of the project impact zone
- Article 28 Administration of grants from the revenue sharing fund
- Article 29 Criteria for determining successful grant applications
- Article 31 Delivery mechanisms for measures supported by revenue-sharing funds

Continued ...

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Chapter 5 Articles ... cont.

- Article 30 Projects involving more than one Province
- Article 32 Harmonization of revenue sharing with financial obligations of hydropower projects for water resources and environment protection
- Article 33 Implementation arrangements at the State level
- Article 34 Implementation arrangements among Peoples Committee's at all levels

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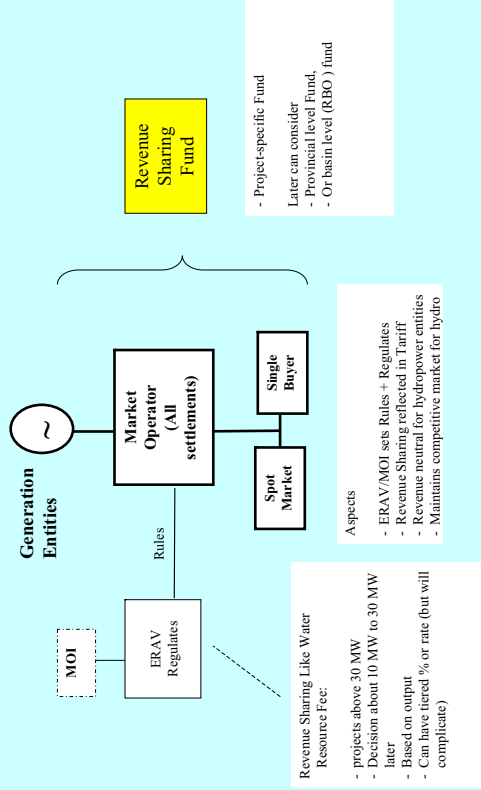
Chapter 5: Revenue Sharing cont.

<p>Hydropower plant annual output</p> <p>(GWh)</p> <p>In the previous year metered at the point of connection to the grid</p>	<p>Unit price</p> <p>(VND/KWh)</p> <p>Reflecting tariff structures recommended by ERAV</p>	<p>Fixed Percentage Rate</p> <p>(%)</p> <p>is recommended to the water resource utilization fee)</p>	<p>Annual contribution to the revenue-sharing fund</p> <p>VND</p> <p>Transferred to the fund as part of market settlement process in the competitive market</p>
<p>Formula Proposed</p>			

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Revenue Sharing

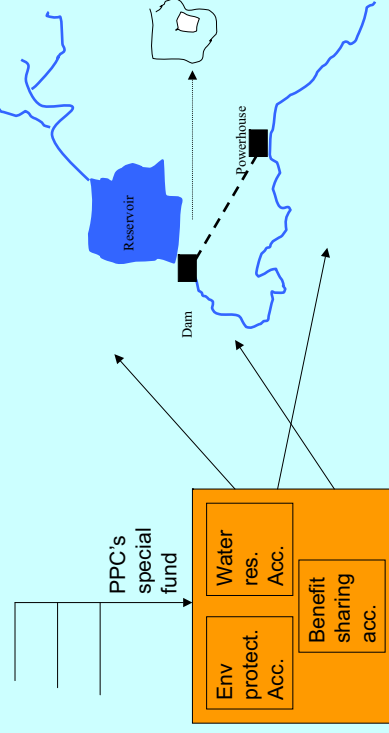
From Power Market to Revenue Sharing Fund



45

Fund combination

- Water resources law
- Environment protection law
- Benefit sharing regulations



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Chapter 6: General implementation provisions

Scope

- Provides implementation responsibilities for:
 - Government Organizations
 - Peoples' Committees at all levels
 - EVN and hydropower entities

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Chapter 6 Articles

- Article 35 Implementation roles of ministries and organizations at the state level
- Article 36 Responsibilities of Provincial People's Committees
- Article 37 Responsibilities of provincial-level services, departments and branches
- Article 38 Responsibilities of Hydropower entities
- Article 39 Implementation responsibilities
- Article 40 Implementation effect

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Draft Guidelines Part 2

Detailed implementation guidance

Contents

- I. General provisions
- II. Benefit sharing principles and philosophy
- III. Identification of eligible parties for revenue sharing
- IV. Establishment of project-specific revenue sharing funds
- V. Functions, duties and composition benefit sharing councils
- VI. Allocation of revenue-sharing funds to eligible parties and investments
- VII. Procedures for selecting and awarding revenue-sharing grants
- VIII. Delivery mechanisms for measures supported by revenue-sharing grants
- IX. Other Considerations
- X. Implementation Arrangements

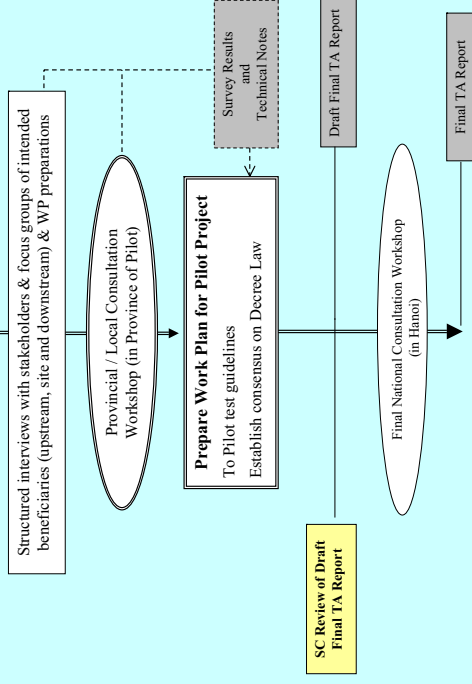
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Next Steps: TA Component 3 work

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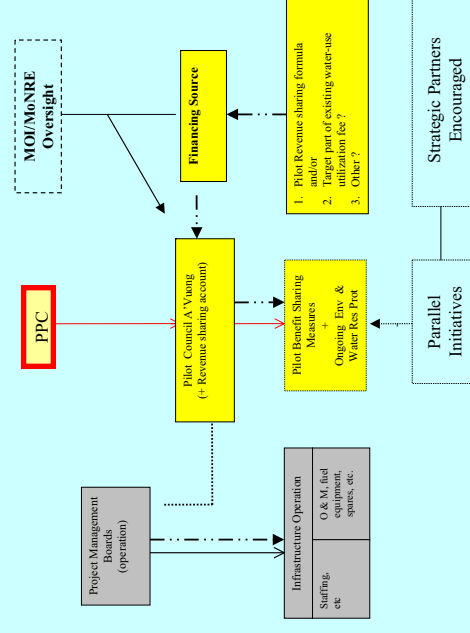
Component 3: Pilot Project Work Plan

Guidelines from Component 2



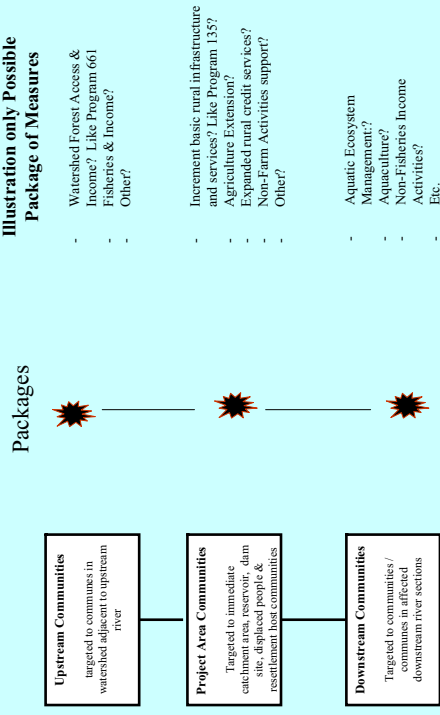
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Arrangements to implement Pilot Project



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Target all Adversely Affected Groups



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Questions and Discussion

1. On the Guidelines
2. On the Pilot Project Design

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Thank you

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Third National Workshop

From the Workshop Report prepared by the Institute for Energy Studies, IES

REPORT ON
Workshop: “Work plan to pilot test the
Benefit sharing Mechanism in A’Vuong project,
Quang Nam Province”

Time: 8.30 to 12.30, Friday, November 09th 2007

Venue: 2nd Floor, Sunway Hotel – No. 19 Pham Dinh Ho Street, Hanoi.

Attendance:

1. Steering Committee Members;
2. ERAV Representatives;
3. ADB’s Representative Mr. Pradeep Perera;
4. Representatives from Ministries, Government Agencies, EVN, Stakeholders, NGOs and IPPs.
5. ADB Consultants: Mr. Lawrence Haas and Dr. Dang Vu Tung;
6. Representatives of Institute of Energy and NIAPP.

1. Introduction

Vietnam has received Technical Assistance (TA) support from the ADB to undertake the TA entitled, “Benefit Sharing Mechanisms for People Adversely Affected by Power Generation in Vietnam”. The Electricity Regulatory Authority of Vietnam (ERAV) is the implementing agency for this work supported by an international consultant and local consultant team. The Ministry of Industry (MOIT – now the Ministry of Industry and Trade – MOITT) is the executing agency. MOITT will be responsible for recommending policies and sub-laws on benefit sharing to the government and Prime Minister.

This report is in the form of minutes of the third and final national workshop for the TA. The annex and provides the PowerPoint presentation made at the workshop.

The primary purpose of Workshop 3 was to present and seek feedback on the work plan to pilot test the proposed guidelines for benefit sharing. The guidelines will inform work to finalize a Decree law that would be introduced in the 2009-2010 timeframe, in parallel with the introduction of competitive electricity generation markets in Vietnam. The policy basis for benefit sharing is sustainable development of the power sector as prescribed in the Electricity Law (2004).

The TA had three components. The first component provided a review of current legislation and policies in Viet Nam to assess what is needed to establish an enabling policy framework for benefit sharing in the power sector, focusing on hydropower projects.

The second component of the TA involved a rapid appraisals of three hydropower projects at different stages of development and collaborative preparation of draft guidelines to introduce benefit sharing principles into the planning, implementation and operation stages of hydropower projects - in line with the Vietnamese context and incorporating lessons from other countries. The guidelines were prepared in the form of a draft Decree-law and an outline of a supporting Inter-Ministry Circular. The draft guidelines were presented at the second National workshop in Hanoi in July 2007. Afterwards the TA team collected comments from SC Members and workshop participants to amend the guidelines.

The guidelines will be pilot tested on the 201 MW A'Vuong hydropower project in the central highlands of Quang Nam Province. A'Vuong is expected to be operational in 2008.

The work plan to pilot test the guideline was prepared in this third and final component of the TA. As part of this work, a second round of field surveys were conducted at the A'Vuong project location by the IES and NIAPP (the local Consultant of the TA) to obtain the reaction of local people to the provisions in the draft guidelines that apply to them. Then in September 2007 these findings were presented at a provincial-level workshop jointly held with the authorities of Quang Nam province and ERAV. In the workshop the reaction of local communities to the guidelines and principles for the pilot project were discussed. The aim was to reach the consensus with Quang Nam authorities how to execute this program successfully and ensure the results will inform preparation of a legal instrument that can be applied to all hydropower projects.

2. Main content of this Workshop:

1. Opening remarks: Mr. Pham Manh Thang, Deputy General Director of ERAV.
2. Remarks from Mr. Pradeep Perera, ADB
3. Presentation and Discussion on TA's status and result from the Provincial workshop – Mr. Dang Vu Tung, Consultant of ADB.
4. Presentation and Discussion on the work plan to pilot test the Benefit Sharing Mechanism in A'Vuong – Mr. Lawrence Haas, ADB's consultant.

3. Discussion:

(Questions are in *italic*)

Mr. Tran Hong Ky, WB

How many hydro projects have been reviewed for the purposes of developing the recommended benefit-sharing mechanism? Each project is very different from each other. Is this number large enough to show out the typical one for the pilot? What differences exist in application of the Guidelines to existing and new projects? Existing projects have already complied with relevant compensation requirements and should they be compelled to assume further obligations and costs? Could the pilot project in A'Vuong project refer to all the others relevant to Benefit sharing in A'Vuong? If so, could the pilot result be suitable with the other project in Vietnam?

Proposals would establish a benefit-sharing fund under ERAV, therefore transferring project revenues to ERAV. Is this correct?

Response:

Three hydropower projects at different stages of development in Vietnam were considered to help calibrate the experience here with international experience. The rapid appraisal reports for these projects are available.

The projects included (i) the Song Bung 4 – at an advanced stage of project preparation, SB-4 which also includes a livelihood component (ii) 201 MW A'Vuong project – under construction by EVN and

due to be commissioned in 2008, and (iii) the 70 MW Song Hinh project – a multi purpose hydropower and irrigation project in operation since 2002.

The reason for looking at these projects was to look at experience on the ground and local perceptions at different stages of hydropower development in Vietnam and assess the type of project most suitable to pilot test the guidelines. A'Vuong was chosen for the pilot by the Steering Committee, ERAV and Quang Nam province itself. While it meets several criteria a key factor is that A'Vuong will be operational in 2008 and thus gives the opportunity to test the guidelines from the start of the project operation.

But to answer your question more broadly, the basis for preparing the guidelines was not just these 3 projects. It was experience with other hydropower projects in Vietnam that the project team and steering committee knows about very clearly, as well as wider international experience. This is experience both in terms of addressing the adverse impacts that hydropower projects can have on local communities and the experience introducing benefit-sharing mechanisms.

A further basis for this work is the global findings of the World Commission on Dams, which looked at experience with large dams in all regions of the world. Viet Nam was also host of the Asia-region conference for the World Commission on Dams in 2000 that looked at many issues related to hydropower development in the region, including benefit-sharing issues. The WCD provides a lot of relevant information. For example it looked at dams supported by the different multi-lateral and bilateral development agencies (including the ADB and the World Bank) and reviewed over 1,000 hydropower projects in different locations.

On the next part of the question, the answer is yes; the guidelines apply equally to existing and new projects. There is little difference in terms of the range of potential impacts that new or existing hydropower projects can have on local communities. For benefit sharing mechanisms, the main difference will be how they are introduced initially. For example for new projects there is also an opportunity to include a number of assessments to plan for and optimise benefit sharing during the project design stage and to reflect it in the EIA and resettlement planning. For example, it is easier to talk to the local communities about long-term stabilization of the resettled communities and the long-term mitigation and management of the residual environment and social impacts of the project when you know you have a revenue-sharing arrangement in place. These aspects are reflected in the guidelines.

Another point is relevant. In the second national workshop we discussed the distinction between compensation and resettlement during the implementation stage of hydropower projects and benefit sharing, which is a long-term arrangement during the operation phase that extends over the economic life of the project. We discussed that the cost of compensation and resettlement due to Decree 197 is covered by the project budget. Benefit sharing, or more specifically the revenue-sharing part of benefit sharing, is paid from the tariff - not the project budget. More information on the rationale is provided in the TA reports.

Project in construction phase still have to comply with the Decree 197 on compensation for land recovered by the state and resettlement, just like any infrastructure project like a highway's project or an airport project.

As noted in the guidelines, the Benefit Sharing Council that is responsible for each project will establish a Charter for the operation of the fund in consultation with the affected communities. That Charter will set out the criteria to decide how revenue sharing funds will be spent for local development and (i) to help offset the permanent loss of resource access people have due to the project (ii) to provide means to take advantage of the new local development opportunities that arise from the project .

On the final part of your question, ERAV is not the recipient of revenue-sharing funds. Local people are. Money comes from contractual arrangements with this single buyer or the spot market to Central

Reserve fund and then is allocated to the project-specific Fund accounts according to formula provided in the guidelines.

As discussed, the guidelines also make provisions for use of a small portion of the revenue sharing funds to help the rollout program nationally in each province. This will be for capacity building in training and local training for example. The government will decide to what extent that is needed. Experience elsewhere shows it is very important to have capacity building tools as well as mechanisms in place to transfer successful experience from project-to-project and between provinces. In that way everyone gains.

Mr. Vu Minh Duc, IUCN

What would be the monitoring mechanism to ensure funds flow to affected communities? How will transparency and sustainability be ensured?

Response

Developing monitoring, evaluation and social accountability systems will be part of the Pilot. This is noted as Activity 5 in the work plan. Measures to protect against abuse of power, or misuse of funds were identified as major concerns of people in the field survey and also in the Provincial workshop in September. The measures and systems for detecting and preventing abuse will be detailed in the Charter for each fund.

It is proposed that the Pilot can also test an Integrity Pact (IP) concept developed by Transparency International (TI) and some other tools to reduce the potential for abuse of power or corruption such as citizen's report cards. These measures that add transparency and social accountability have shown to dramatically reduce the risk of abuse on water projects and local development initiatives in other countries. Environmental, social and economic sustainability is central to the proposed mechanism.

Another dimension is that a sustainable financing is provided by the revenue-sharing mechanism. This can be used to provide incentive and income to involve local people in measures that contribute to the long-term sustainable management of the hydropower asset (e.g. sustainable land use and agricultural practices to reduce soil erosion that would reduce reservoir sedimentation and planting trees in headwater forests) and to mitigate or manage the adverse ecosystem impacts of the project. This is also a form of payment for ecological services.

This is important to ensure the environment protection commitments of the project are maintained, especially since the lack of financing for these measures has always been a problem in the past. The approach also is to use of mass organizations to distribute grants and be responsible for accountability, rather than simply handing out money to people. How this helps sustainability will be discussed later.

Mr. Nguyen Van Hanh, Forestry Department, MARD

What is the rationale for the benefit-sharing mechanism?

MARD is now assigned to develop the payment of ecological services. Communities living in forests are generally poor. However, they are expected to contribute to the costs of the hydro project through the loss of productive forestland and through the need to manage forests in the watershed area for the project. Therefore they essentially required to be supported. How are they compensated for these costs?

Response

The guidelines identified that revenue-sharing can be used to provide payments for ecological services, provided they contribute to local development, such as income generation, and are incorporated in the Charter for the project specific revenue-sharing fund.

The Benefit Sharing Council will discuss with the people to decide what expenditures are permitted within the framework of the law and to develop the Charter on that basis. This procedure is shown in

the draft Guidelines. The mechanism for payment for ecological services (PES) would be through the same grant process as for other uses revenue-sharing funds.

Benefit sharing and revenue-sharing in particular is fundamentally concerned with addressing the fact that people in the project area have lost access to resources and ecosystem services whether they are forest ecosystems, aquatic ecosystems, wetland ecosystems or other land-based ecosystems.

Hydropower offers many national benefits; but at the same time many of the “external costs” fall largely on lower-income communities will host the project. And as the rapid appraisal show, often a large portion of the affected communities are ethnic minority groups. The mechanism, therefore, provides a way for people in the cities, towns and modern sectors of the economy to equitably share the benefits and cost with affected local communities. The livelihood strategies of most people living in these areas are linked to ecosystem services that can be transformed by the hydropower project (e.g. fishing, recession agriculture along the riverbanks, and forest ecosystems that may be lost or fragmented due to flooding to create the reservoir).

Mr. Pham Manh Thang, DG, ERAV

Differing mechanisms apply for differing groups. This project focuses on benefit sharing for affected communities. Problems of general poverty are addressed through the social welfare fund.

Mr. Lawrence Haas, International Consultant of ADB

Three questions were raised by the project team to ask for almonds by the workshop participants:

What are the best ways to involve strategic partners in the pilot project?

What is the best role for you, the National Consultation Group during the Pilot?

Composition? What others people should be invited to National Consultation Group?

Mr. Vu Minh Duc, IUCN

The best way to involve international partners is to identify their comparative advantages. Private sector representatives should be invited to join the National Consultation Group.

Priority should be given to vulnerable groups affected by the project’s construction. But there is also need to have a balance between groups. It is may be possible to collect comments from local people on assessment and balance supported benefits.

The revenue sharing funds may also be used to find out about other financing resources, which may support them (e.g. Program 135, Rural Electrification Program and so forth). In that was the revenue sharing funds can be used as ‘seed’ funding for work by other community groups is a good idea.

Response:

Yes, It will certainly help to improve the participation of the private sector and local entrepreneurs. The guidelines can also reflect the possibility of using the project as seed money explicit to leverage other resources.

This concept is already implicitly in the guidelines, where revenue sharing funds can be used to “increment” existing provincial and state targeted programs such as Program 661 in the forest sector and Programs 133 and 135 to develop rural infrastructure and extension services targeting ethnic communities and people living in areas of difficult and extremely difficult social economic conditions. It may be this will also help “attract” such funds, but that will ultimately be left to the decision by the benefit sharing Council for each fund depending on the particular circumstances in that province.

What would be the best way to approach IUCN for contributions to the project (as an example of how to approach INGOs more generally)?

Response from IUCN:

IUCN is already involved in this project through participation in workshops. IUCN is also interested in providing support to the Pilot—both financial and in the form of expertise from member organizations).

Ms. Dang Thuy Nga, WWF

How will ERAV allocate funds from the Central Reserve between provinces? This may be proportional to the share of revenues contributed by each province. Quang Nam Province has a high potential for hydropower projects and could bring ERAV more benefits than other province, so they will receive more than others. This is not fair with the other provinces.

Would benefit-sharing funds be available for water protection measures?

Response:

Yes. The guidelines make it clear that benefit-sharing contributions are allocated to projects on the basis of their total annual generation (GHW) and according to a prescribed formula. ERAV does not keep the money as explained previously in the presentation and in the response to the first question. The Central reserve fund is simply and efficient mechanism for collecting revenues from the power market and remitting the money into the project specific funds, according to the rules set out in the law.

The central fund also has some other advantages as a buffer to ensure there is money for revenue sharing in the first year that a new project operates and also to help with the national rollout of the program starting in 2010 as discussed. Each province will receive funds according to the formula for revenue generation. Additionally there can be explicit transparency arrangements like budget tracking and independent verification by NGOs or others to ensure there is no confusion or room for controversy. These are questions that can be explored in the pilot.

Can WWF comment on how best to obtain their involvement in the Pilot?

Response from WWF:

WWF is already working on projects to advocate paying for ecological services. WWF would be happy to share the lessons from these projects with the Pilot as well as to provide technical support in PES. WWF is please to cooperation with ERAV in exchange experiences on these issues and could provide ERAV proposals to develop Quang Nam and support ERAV in Technical Assistance.

Mr. Pradeep Perera, ADB

Some hydro projects affect communities in multiple provinces. How will benefit-sharing revenues be allocated across provinces in these cases? Will a basin-wide approach be taken for projects in cascades that have cumulative impacts? Where a province has multiple hydro projects, would a separate Benefits Sharing Council be set up for each project a single province-level council established?

Response:

Yes this question was discussed in the steering committee. The first part of your question is covered by in Article 34 of the guidelines. The basic approach is to split revenue -sharing funds in proportion to the number of people in each commune in the project impact zone, in each province. It is proposed that this allocation will be fixed when the revenue sharing is introduced. The second part is more difficult and needs to be considered on a case-by-case basis. Practical considerations will determine whether two or more benefit-sharing councils are established or a single benefit-sharing council to which affected peoples in other provinces send representatives.

The guidelines provide for flexibility and for the arrangements to be agreed by the two or more provinces. Ultimately, each province can decide whether or not it needs to establish a benefit sharing Council for a particular project where the project impact zone as defined by the EIA falls in more than one province. In cases where a dispute arises between provinces, the guidelines provide that ERAV will arbitrate on behalf of MOITT. This is in regard to the allocation of funds to the different communes using the formula set out in the guidelines.

Where the project requires resettlement of people with an official resettlement zone in a second province, and that official resettlement area is not in the basin where the hydropower project is located, the guidelines provide for continued support to them from the benefit-sharing mechanism for 10 years. The amount they receive would be in proportion to the percentage they represent of the total affected population.

Otherwise if the resettlement area in the second province still in the basin where the hydropower project is located then revenue sharing will be on a permanent basis. And the second province will decide whether they need a separate benefit sharing Council, or make other arrangements.

When there are more than one hydropower project in the basin the option of moving toward a basin approach is attractive. However, basin level organizations are not yet fully developed in Vietnam and for the time being approach a specific approach is recommended in the guidelines. However, the guidelines also state that in the longer-term the movement towards basin-wide benefit sharing is encouraged. And the provinces ultimately have the decision authority on when it is best to shift from to a basin level at arrangement—but at the same time retain the ability to deal with impacts that are unique to each project.

The mechanisms will evolve over time. At present, the guidelines are written to leave flexibility for this.

The Articles in the guidelines that deal with these aspects will also be reviewed during the Pilot. MONRE will need to have inputs on decisions to establish basin-wide committees.

Question from ADB to WWF

For WWF, what types of PES are being applied in current projects and how can these be integrated into the benefits-sharing Pilot?

Response from WWF:

WWF has planned but has yet to start any projects. The focus is on how to get payments from hydro projects to the sellers of ecological services (watershed managers). WWF expects that the new benefit-sharing guidelines will provide the means of collecting contributions from hydro projects and looking at question of how to get these funds to the affected communities and to use them for payments for ecological services. Current funding is only enough for study of payment mechanisms, not to actually fund community projects. The other project will use contributions from timber companies.

Mr. Le Ba Ngoc, Legal Department, MOITT

Are there similar benefit-sharing mechanisms internationally in sectors other than power? Interest lies in Chinese initiatives to develop hydro plants on the Mekong, which impact on downstream communities in Lao PDR and Vietnam. Should there be a similar benefit-sharing mechanism for this? Is there a legal basis for the A'Vuong Pilot? Will its results impact on other projects?

Response:

Yes. In component 2 of this TA we looked at experience with benefit-sharing mechanisms in Vietnam in all the resource utilization and management sectors. The review identified such mechanisms in forestry (in the Decree on State Forest Enterprise Reform) and in the draft Biodiversity Law (benefit-sharing for genetic materials).

There also many examples in international experience in other sectors, most notably in the mining and transport sectors transport. More recently there is considerable attention to benefit sharing with genetic resources and plant material where the local community receives a share of income from international patents as part of intellectual property rights and other protections afforded under the WTO which Vietnam recently acceded to.

Please see Interim Report-1 for the various examples.

The question about international benefit sharing in the Mekong system is outside the direct scope of the TA project. However we did look at the 1995 Mekong Agreement and an illustration of an international legal instrument that embodies benefit sharing. The 1995 Agreement does advocate benefit -sharing between upstream and downstream countries but in the form of mutually beneficial development of water resources in the Mekong system. That Agreement is of course restricted to the lower Mekong countries.

There are several other international sources where guidance at the greater Mekong system (GMS) level is offered. For example, the World Commission on Dams in 2000, advocated an approach not to look narrowly at the issue as water sharing but rather as sharing the multiple benefits from cooperation in water resource management and trade more generally, such as with electricity exchange and the multiple benefits of interconnection as well as multiple opportunities cooperation and trade. This wider approach can lead to mutual agreement, when it is difficult to get agreement on a single specific sub-sector or issues such as water sharing. (For example in Central Asia they could not reach agreement on water sharing accords alone, until they brought in hydropower and exchange of gas and oil into the equation). In the Mekong region of course you have the GMS mechanism to facilitate such agreements.

Otherwise, the legal basis for benefit sharing is established in Viet Nam's primary and secondary legislation. But legal advice may be needed on different aspects and interpretation of the laws. This has not been a big problem in other countries that have introduced revenue sharing.

Mr. Huynh Khanh Toan, Director of Department of Industry, Quang Nam Province

On behalf of Quang Nam Province out thanks is extended to the ADB for choosing the A'Vuong hydropower project to host the pilot program on benefit sharing. Quang Nam Province has the potential for 8 large hydropower projects and 43 small and mini hydropower projects with total capacity reached 1500 MW.

Today there are many private companies investing in hydropower in Quang Nam and they have to make a commitment for a one-time contribution to Quang Nam. For instance Hoang Anh Gia Lai Corporation has committed to contribute 2 million USD to Quang Nam. Otherwise, Quang Nam also required IPP investors to ensure to regenerate forest around the reservoir. The province nevertheless lacks the financial resources to make hydropower development in the province sustainable and address all the impacts of hydropower. Therefore, the development of Benefit Sharing is absolutely essential and highly welcomed.

In September 2007, IES held a workshop in Quang Nam province where all of Quang Nam Authorities could meet to discuss this new concept with ERAV. This workshop reached high consensus on the need and value of a long-term benefit sharing mechanism. Quang Nam is also highly pleased to carry out the pilot project in A'Vuong and will cooperate closely with ERAV and relevant agencies in implementing the pilot. Quang Nam also agreed to nominate and assign the Benefit Sharing Council.

Related to the financing resources, Quang Nam understood that Revenue sharing fund is not a part of State Budget and will be allocated from Central Reserve Fund administrated by ERAV. Also there were some concerns raised in this workshop on the monitoring mechanism. Quang Nam believes in the success of the pilot program because of the deep experience of mass organization in Quang Nam on developing transparency mechanism for allocating grants (e.g. Woman Union, Farmer Association, Youth Union).

Mr. Truong Thanh Trung – Economy Department – Farmer Association

A further workshop should be help looking at the economic and financial impacts of the proposed mechanism. Imposing benefit-sharing obligations will reduce the profits of hydro projects and, therefore, the tax income from them.

Response

The impact of revenue sharing on electricity tariffs would be investigated during the pilot project. However revenue sharing does not affect the profitability of hydropower operators. It is a pass-through to the electricity tariff. The consumers of electricity pay for revenue sharing and not the hydropower enterprises.

As discussed previously, one of the purposes of benefit sharing is to help mobilize investment for hydropower by reducing the risks that investors would face. This is in terms of the potential for local conflict on that could lead to costly delays in project implementation. International experience shows that projects with good revenue-sharing arrangements reduce the potential for local conflict. Equally important, the presence of a viable benefit sharing mechanism helps to enhance the sustainability of the project and the environment and social components of the project especially. This conforms to the criteria of international lenders look for in lending to sustainable hydropower projects. This is a major trend in international financing that is gaining momentum and Vietnam would have comparative advantage with an effective benefit sharing policy in place, all things considered.

Mr. Nguyen Vien Dan - MONRE

Should the other sectors that benefited from the construction of hydropower project (e.g. irrigation, aquaculture...) share their benefit to the PAP? What is the scope of regulation and is there any support for the people in upstream areas?

Response:

In international experience, benefit sharing is introduced in other sectors including the mining sector and transport sectors. In Vietnam benefit sharing principle already exist in the forestry sector and are proposed for the biodiversity sector. Benefit sharing could be extended to other sectors as well.

In the end benefit sharing is a powerful new tool for sustainable resource development as it is defined in the Environment Law 2006, “development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs, on the basis of a close and harmonized combination of economic growth, assurance of social advancement and environmental protection”.

The scope of the regulation is that all communities adversely affected by the hydropower project will be eligible to participate in benefit sharing. This is consistent with international findings that some countries had a very narrow focus only on resettled people, when in fact, many different groups can be adversely affected by hydropower projects, such as through changes in the levels of resource access that link to their livelihoods and many other ecosystem, cultural and social effects.

The rapid appraisals show this very clearly on the three projects in Vietnam. Local people (other than the resettled group which may be a very small percentage of total affected population) feel very strongly on these points that they too have given up something permanently in order for the project to precede. And those people resettled and have already received compensation support. This experience in Viet Nam is no different than other countries. Equally important is the need to give all people in the project impacts zone equal and fair access benefit sharing.

The Pilot will look at how benefit-sharing revenues are allocated between the various affected communities using the formula set out in the guidelines and suggest modifications to this based on practical experience on the ground.

Mr. Pham Manh Thang, DG, ERAV

The first and second workshops under this TA Project focused on scope and mechanism design. Investors must refer to this Decree when investing new projects. The focus is on sharing benefits from operation of hydro projects with those communities affected by them in long-term rather than the short-term support for resettlement as stipulated in Decree 197.

IV. Conclusion (Mr. Pham Manh Thang – Director General of ERAV)

This TA was sponsored by the Asia Development Bank (the ADB) and ERAV was assigned to be the Execute Agency of this TA. This workshop is the third workshop held in Hanoi and also is the last workshop of this TA. Until now, 3 main tasks of the TA were successfully done, basic principle and mechanism was drafted and proposed and work plan for the pilot program was initially finalized.

In Vietnam, it is still the very first step to develop the Decree for development of strategy policy. And the TA also needs to say thanks with the Steering Committee Members who zealously contributed to this TA from the start. It may be proposed that the incumbent SC members will remain their position in the operation phase of the pilot program to ensure the quality of the direction and the success of the pilot. And it is also hoped that the incumbent SC members will contribute more on the compile and develop of the Decree on Benefit Sharing.

It is also important to call for the cooperation of Quang Nam province. We ask for Mr. Toan to report to the Leader of Quang Nam PPC to ask for the support and cooperation to facilitate to the implementation of the pilot program in A'Vuong project, Quang Nam Province.

And it would be a seriously mistake if leaving out the contribution and support from sponsor and consultants. ERAV is looking forward to continue receive support from not only ADB and other Finance Agency but also International NGOs, e.g. the IUCN, the WWF and looking forward to working with Mr. Haas in the next steps.

Finally, ERAV is pleased to say thanks to all the attendants.

V. Attachments

1. Agenda
2. Remarks from ADB
3. List of participants/representatives
4. Consultant's presentation

Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects in Viet Nam

Electricity Regulatory Authority of Vietnam (ERAV)
ADB TA-4689 (VIE)

Third National Consultation Workshop

Work Plan for the BSM Pilot Test
On A'Vuong
And completion of the TA

FRIDAY 9 Nov 2007

1

Contents of Presentations

1. Refresh on last workshop
2. TA Status + Results from Quang Nam Province
3. Work plan to pilot test guidelines on A'Vuong

Coffee Break

4. Work plan – Part 2
5. Next steps

Short Q&A after 2

Discussion sessions after 3 and 5

2

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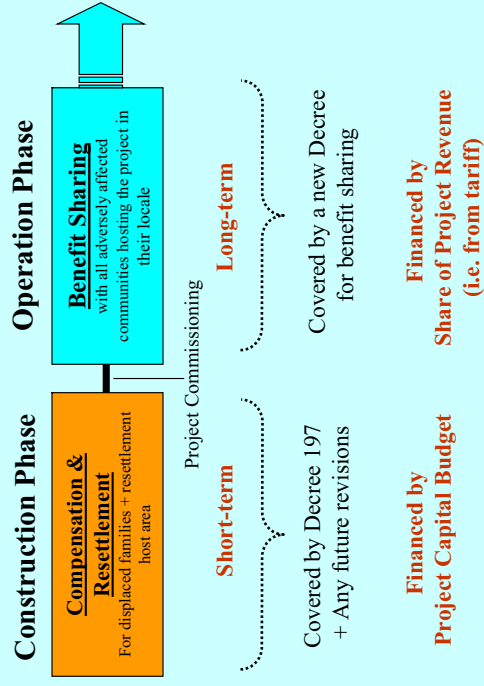
Short Q&A after 2
Discussion sessions after 3 and 5

1. Refresh on last Workshop in July 07

3

C1

Benefit sharing – on Hydropower projects



4

C2

Benefit sharing as a policy tool

- Advance sustainable development of hydropower
 - “development meeting needs of the present generation without compromising the ability of future generations to meet their own needs, on the basis of a close and harmonized combination of economic growth, assurance of social advancement and environmental protection”. (LoEP, 2005, Article 3)
- modern thinking to treat local communities as long-term partners in the project + local action
- Gain other comparative advantages for power sector
 - Risk reduction for all stakeholders including investors
 - Mobilizing capital - enhanced access to international finance
 - Level playing field for public and private IPP

5

From guidelines in last workshop

Article 1: Scope of the regulation

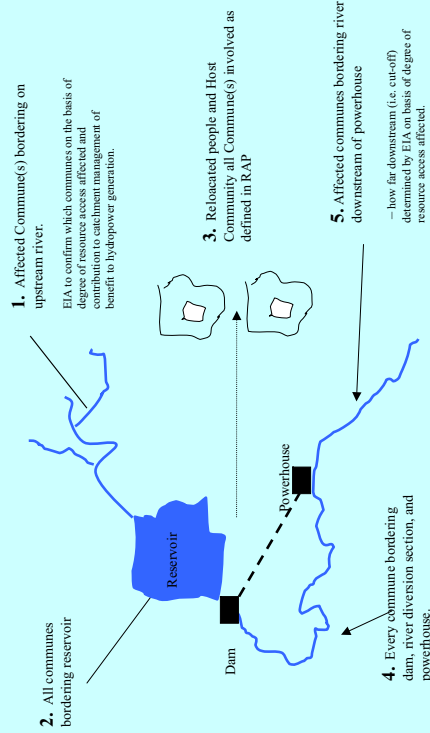
1. ... provides for equitable sharing of benefits (and costs) arising from sustainable development of the nation's hydropower resources.
2. ... establishes a long-term revenue sharing arrangement between the main consumers of electricity services in towns, cities and industry and the local communities hosting hydropower projects who are adversely affected by the project in their locality.
 - Ensuring people who permanently give up land or natural resource access for national investments in hydropower are first among beneficiaries of hydropower
 - Ensuring local communities have access to financial support to take advantage of the new local development opportunities created by the hydropower project; **opportunity + empowerment = poverty alleviation**

6

C3

Target / Involve all Affected Groups

Who absorb externalized costs of hydropower in national interest



7

C4

Use of Funds: Developing country examples

Grants for measures preferred by beneficiaries made through different funding windows: e.g.

Local development initiatives (CDD approaches), like:

- Village or commune scale infrastructure
- Agriculture extension services
- Skills and local entrepreneur development
- Rural credit programmes (revolving funds)
- Local expenditures on health services, Communications, rural roads etc.
- Youth programmes etc.

Income raising actions for environment and water resource protection, like:

- Catchment management measures – e.g. headwater forests; adopting soil conservation and erosion control measures
- Improving local capacity for managing ecosystem services
- Payments for ecosystem services

Bottom up local development

8

C4

Benefit sharing in developing countries

Many developing countries have introduced benefit sharing on dam projects, hydropower especially: e.g.

China - (Danjiangkou dam) hydropower revenue for “remaining problems fund” for communities to fund income-generating enterprises.

Brazil - Constitution (1988) . 45% of income from the water-use fee goes to municipalities affected; 45 % to the provincial authorities; and 10% to finance power sector regulatory functions.

Columbia - 3% of revenues from all hydropower projects to the watershed agency to fund watershed management activities working with the basin communities (income raising).

India – Oct 07 announced new hydropower policy. 2% revenues to local area development fund managed by local representative committee).

Other benchmark examples : Laos, Nepal, Sierra Leone, Norway and Canada.

C5

Room for Revenue sharing

Plant Factor	Competitive Threshold		Present Room	
	\$/kW	\$/kWh	\$/kWh	% average tariff
50%	2,048	0.15	2.7%	
55%	2,152	0.35	6.3%	
60%	2,190	0.39	7.1%	
65%	2,227	0.43	7.7%	
70%	2,264	0.46	8.3%	
75%	2,301	0.49	8.7%	
80%	2,339	0.51	9.1%	
85%	2,376	0.53	9.5%	
90%	2,413	0.55	9.8%	

*Calculated with av. cost of marginal generator
W/ without emission cost on thermal
10% Discount Rate
Average tariff* 890 VND/Planned

Room Needs to Cover

- Revenue sharing +
- water resource fee +
- environment protection fee ?

Room Increasing ↑

- VN moving to international fuel price levels
- Upward pressure on international energy prices
- Adding thermal emission penalties
- Adding hydro ancillary benefits¹⁰

S1

TA Scope + 3 Components

**Component 1
Tasks**

Policy Review: assess the extent Viet Nam’s current laws and policies enable local benefit sharing, management of ecosystem services impacted by hydropower and sustainable financing of measures.

**Component 2
Tasks**

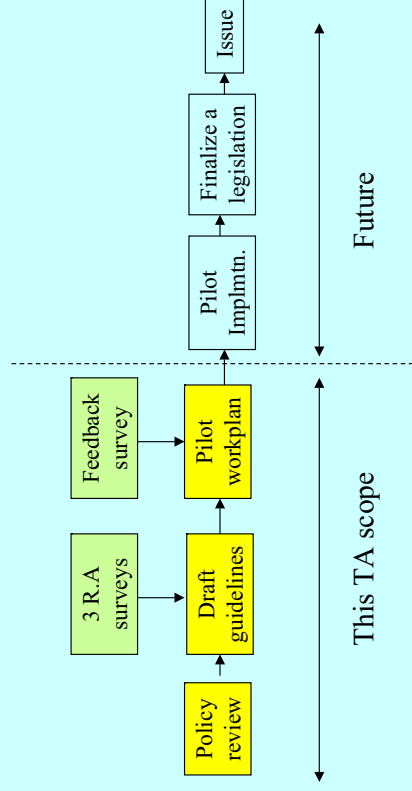
Draft Guidelines: develop guidelines to introduce benefit sharing into planning, implementation and operation stages of hydropower projects, drawing on experience from other countries; and

**Component 3
Tasks**

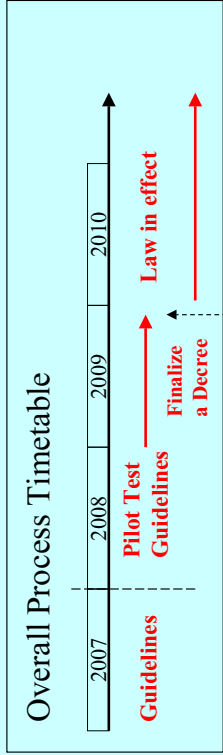
Pilot Project Work Plan: prepare a detailed work plan to pilot test the guidelines. This as a first step to formulate a long-term sector policy framework.

S2

TA Scope



Journey from guidelines to legislation



Coincides with competitive power market rule introduction in 2009

Approach:

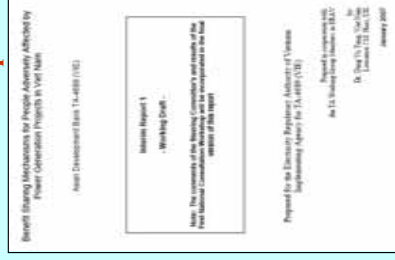
- Guidelines in the form of a draft Decree
- Pilot project to test and modify guidelines
- Workplan for the pilot.

TA Reports (Prepared & Available)

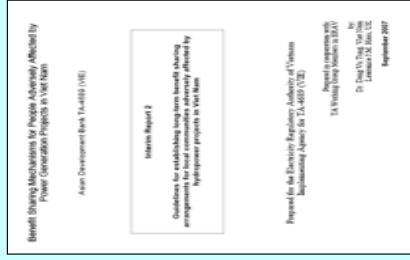
Inception Rpt.



Interim-1 Rpt.



Interim-2 Rpt.



The Review was in two parts

(summarized in Interim Report 1)

The First Part

A **sector-by-sector review** of the hierarchy of legislation and sub-laws in different sectors.

As a body, these laws establish the legal framework for sustainable development of Viet Nam's hydropower resources and a basis to consider future sub-laws on benefit sharing.

+

The Second Part

An integrated analysis of Viet Nam's legislation and policy regime using a **SWOT analysis** format (strengths, weaknesses, opportunities and threats).

10 Sector Categories Considered

- State Constitution
- Power Sector
- Water Resources Sector
- Environment Sector
- Forest Sector
- Fisheries Sector
- Agriculture and Rural Development Sector
- Sector including Land Administration
- Social Sectors including laws relevant to Ethnic Minorities
- International Conventions and Agreements of Viet Nam

SWOT Concept Matrix

	Strengths	Weaknesses
•	_____	_____
•	_____	_____
•	_____	_____
•	_____	_____
	Opportunities	Threats
•	_____	_____
•	_____	_____
•	_____	_____
•	_____	_____

Policy review finding highlights

1. Benefit sharing principles recognized in Viet Nam's primary legislation and policies and decree laws in many sectors.
2. Three generic forms of benefit sharing reflected in the legal framework now:
 - type 1 Equitably sharing of electricity access & services
 - type 2 Entitlements for enhancing resources access
 - type 3 Revenue sharing
3. All three reflected, to varying degrees, in primary and secondary laws in the power, water, forestry, and environment sectors .
4. Complements key social policies (including Constitutional provisions) for priority development of minorities and communes and areas of difficult or extremely difficult socio-economic conditions.

After SC Meeting 3 & National Workshop 2 July 2007

- IES assembled
 - Steering Committee and consultation group comments
 - National consultation group comments (e.g. IUCN paid for legal review focusing on ecosystem services aspects)
- Draft guidelines updated

Adjustments made:

1. Minor items / streamlining to reflect comments - all Chapters
2. Moved all implementation articles to Chapter 6. Article # change
3. Two substantive changes:
 - Central Reserve Fund Administered by ERAV
 - Grants to legal entities (e.g. households via grants to mass organizations)

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AC3

Guideline chapters

- Chapter 1. General provisions*
- Chapter 2. Process to introduce benefit-sharing mechanisms on hydropower projects*
- Chapter 3. Equitable sharing of electricity access and services*
- Chapter 4. Entitlements for enhancing resource access*
- Chapter 5. Revenue sharing*
- Chapter 6. General implementation provisions*

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AC4

Guideline Articles - Illustration

Chapter 1 Articles:

- Article 1: Scope of regulation
 Article 2: Subject of application
 Article 3: Definition of key terms
 Article 4: Objectives of benefit sharing
 Article 5: General principles of benefit sharing
 Article 6: Forms of benefit sharing encouraged on hydropower projects

Chapter 2 Articles:

- Article 7: Steps to factor benefit sharing into all stages of the project cycle
 Article 8: Procedures to adopt during strategic planning stages
 Article 9: Procedures to adopt during project planning and feasibility stages
 Article 10: Procedures to adopt during detailed project design and implementation stages
 Article 11: Procedures to adopt on existing hydropower projects
 Article 12: Fundamentals of arrangements for benefit sharing during operation phases
 Article 13: The role of river basin organizations in benefit sharing

Chapter 3 Articles:

- Article 14: Costs for electrification of resettlement communities in project capital budgets
 Article 15: Targeting communities living in the project impact zone with rural electrification funds
 Article 16: Off-grid supply in areas uneconomical to connect to the grid
 Article 17: Additional measures to enhance electricity access for the poorest households
 Article 18: Organization for implementation of equitable electricity access at state and provincial levels

Chapter 4 Articles:

- Article 19: Types of measures for enhancing resource access and livelihood opportunity
 Article 20: Procedures to identify local preferences for additional entitlements
 Article 21: Provincial level support to granting entitlements to enhance resource access and livelihood opportunity

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AC5

Guideline Articles – Illustration 2

Chapter 5 Articles:

- Article 22: Types of measures supported by revenue sharing
 Article 23: Establishment of a central reserve fund by the electricity regulator (ERAV)
 Article 24: Establishment of project-specific revenue sharing funds
 Article 25: Mechanisms for payments into revenue sharing funds
 Article 25: Financing formula for calculating payments into revenue sharing funds
 Article 26: Functions and duties of the benefit sharing Councils
 Article 27: Composition of benefit sharing Councils
 Article 28: Preparation and contents of the fund Charter and annual reports
 Article 29: Determination of parties eligible to apply for revenue sharing grants
 Article 30: Principles for allocating revenue sharing among communes in the project impact zone
 Article 31: Principles for administration of grants
 Article 32: Fund administration costs and anti-corruption measures
 Article 33: Criteria for determining successful grant applications
 Article 34: Projects on inter-provincial rivers or affecting more than one Province
 Article 35: Delivery mechanisms for measures supported by revenue-sharing funds
 Article 36: Coordination with planning for local infrastructure investment and rural development extension services
 Article 37: Harmonization of benefit sharing funds with project-specific funds for water resources and environment protection

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Contents of Presentations

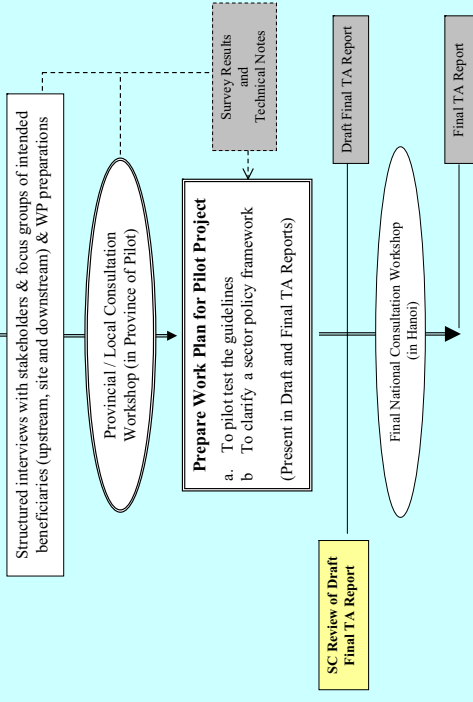
1. Refresh on last workshop
2. **TA Status + Results from Quang Nam Province**
3. Work plan to pilot test guidelines on A'Vuong Coffee Plant
4. Work plan - Part 2
5. Next steps

2. Component 3 Status Results from Quang Nam Province

21

TA Component 3: Preparing the Pilot Work Plan

Guidelines from Component 2



22

Status of Component 3

Component 3 finishes with issue of Final Report, after SC Meeting (4th) and National Workshop 3:

- Field Questionnaire / Survey and Report
- Provincial Workshop - Quang Nam
- Pilot Work Plan – Test Guidelines on A'Vuong
- Draft of Final TA Report
 - Annexes include guidelines + work plan
 - + Attachments

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Field Interview Outcome

Structured interviews with local people (upstream, site and downstream)

Many issues raised. Selected points listed:

- Highly appreciated benefit sharing
- Wanted all forms of benefit sharing in the pilot test
 - Electricity access (reasons given)
 - Resource access entitlements
 - Revenue sharing
- All areas felt they were adversely affected in different ways and wanted to be treated equally
- Most cited the long term effects. Concerns about protecting against mis-use of supports. Need transparency.

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Provincial Workshop Outcome

21 Sept 07 Quang Nam Convention Center

- **Very positive overall**
 - Appreciated benefit sharing & the rationale - strongly
 - Agreed with general direction of the guidelines
 - Agreed to host the pilot and test all aspects of the guidelines as practical
- **Key issues raised**
 - assure people will not lose other support
 - make it public and transparency to avoid abuses
 - Clarify that revenue sharing is NOT a state budget

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Short Q&A

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Contents of Presentations

1. Refresh on background
2. TA Status - Results from Quang Nam Province
3. **Work plan to pilot test guidelines on A's Village**

Circle back

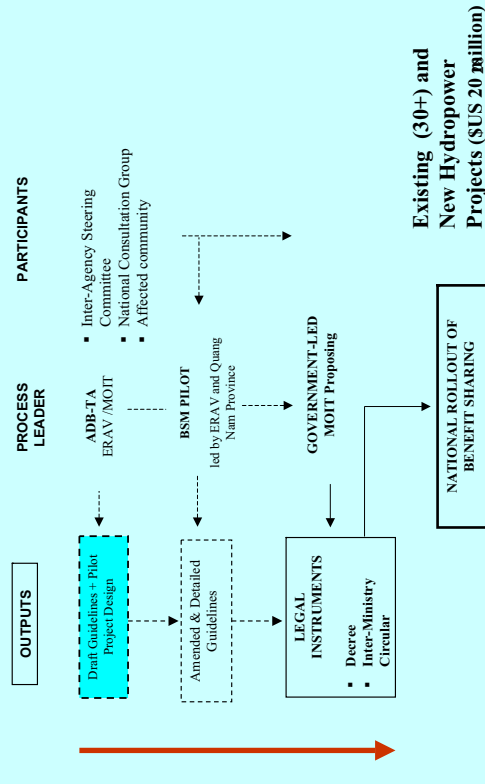
4. Work plan - Part 2
5. Next steps

2. Work Plan to Pilot Test the Guidelines

- Objectives
- Key design considerations
 - General approach
- Implementation Arrangements
- Activity Framework and Areas
 - Indicative Budget

27

How the Pilot fits in the overall process to develop legislation



Three objectives of Pilot Project

- 1. Field test + verify /modify the guidelines**
To provide recommendations on the necessary legal instruments to introduce in 2009-2010.
- 2. Prepare capacity building tools**
To scale-up introduction of benefit sharing mechanisms on other hydropower projects in Viet Nam systematically in a consistent manner – once the law is in place.
- 3. Support A’Vuong**
To enhance the sustainability of A’Vuong itself contributing to social and environmental components

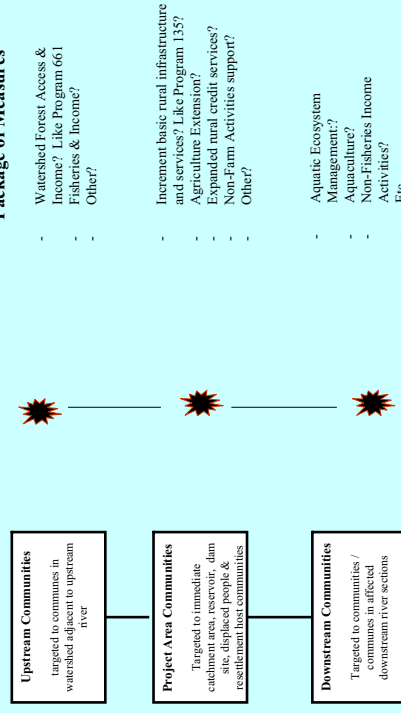
29

Four Key Design Considerations

1. Feedback from A’Vuong people and Quang Nam Province
2. Systematically test guidelines relevant to A’Vuong + extrapolate to existing & new hydropower projects
3. The legislative time table pilot must feed into
4. Source of finance, how long it takes for financing the pilot and budget level

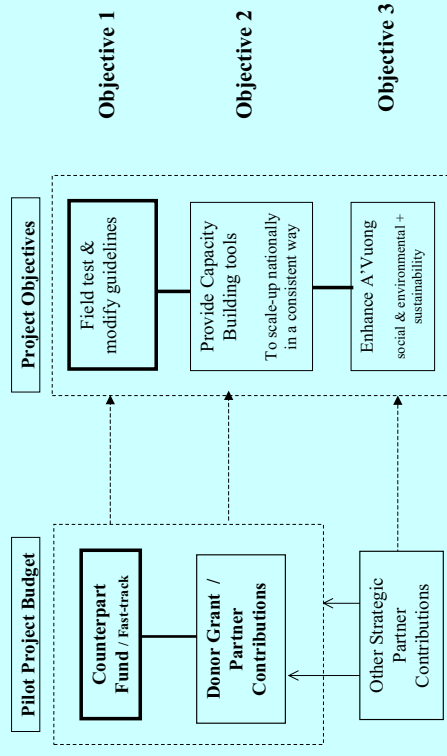
30

Target communes representative of all Adversely Affected Groups



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General approach



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Counterpart budget (CPB) activities (Or with Donor fast-track grant)

Vietnamese professional capacities only to:

- benefit sharing council and revenue sharing account;
- model fund Charter + and other key instruments
- recommend measures for equitable sharing of electricity access and enhanced resource access + responds to A`Vuong community;
- one-cycle of grant applications + award to test delivery and monitoring mechanisms for measures
- article-by-article review of guidelines and recommendations

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Grant Supported Activities (with Partners)

Building on CPB activities - more resources to:

- Field test a wider range of grant awards in two or more cycles and extend the pilot project timeframe;
- Assess development effectiveness of measures and linkages to poverty reduction targets more comprehensively;
- Develop a set of capacity building tools based on pilot and international experience for smooth start-up of benefit sharing on other hydropower projects in Viet Nam;
- Enable ERAV to draw in regional and international expertise
- Concretely enhance A`Vuong by larger revenue sharing grants.

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Indicative budget for BSM Pilot

	CP Budget		Donor Grant Budget		Total	
	\$US Eq.	%	\$US Eq.	%	\$US Eq.	%
1. PEOPLES COMMITTEES WORK	18,133	6.5%	18,133	2.4%	36,267	3.5%
2. BENEFIT SHARING COUNCIL WORK	25,455	9.1%	25,455	3.4%	50,909	4.9%
3. GRANT PROGRAM	100,000	35.9%	300,000	40.0%	400,000	38.9%
4. KNOWLEDGE SHARING & CAPACITY BUILDING	28,667	10.3%	207,058	27.6%	235,724	22.9%
5. PROJECT TEAM SUPPORT, TRAINING AND REPORTS	49,945	17.8%	55,036	7.3%	104,982	10.2%
6. MONITORING, AUDIT, EVALUATION & SOCIAL ACCOUNTABILITY	2,218	0.8%	45,939	6.1%	48,158	4.7%
7. STEERING COMMITTEE AND NATIONAL WORKSHOPS	28,545	10.3%	30,824	4.1%	59,370	5.8%
Activity Total	252,864	90.9%	662,445	90.9%	935,410	90.9%
Contingency	25,296	9.1%	65,245	9.1%	93,541	9.1%
Total Projected Budget	\$278,260	100.0%	\$750,690	100.0%	1,028,951	100.0%

- Counterpart budget of \$USD 278,260 all VND expenditures
- Donor Grant of 750,690 incorporates regional / international support
- Local grants to people represent 40% of expenditure – in guidelines administration restricts non-grant expenditure to 15%

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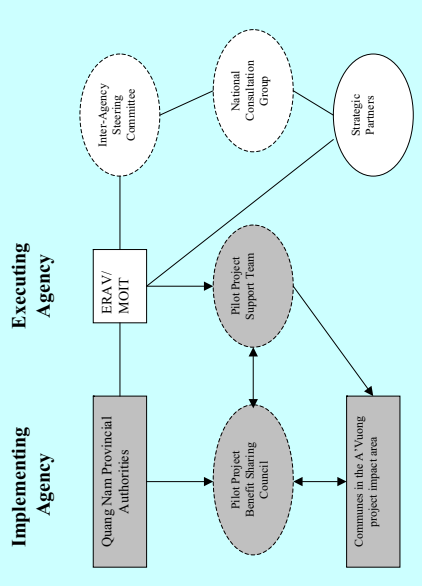
Expenditure Categories

Expenditure Categories - Total USD EQUIVALENT

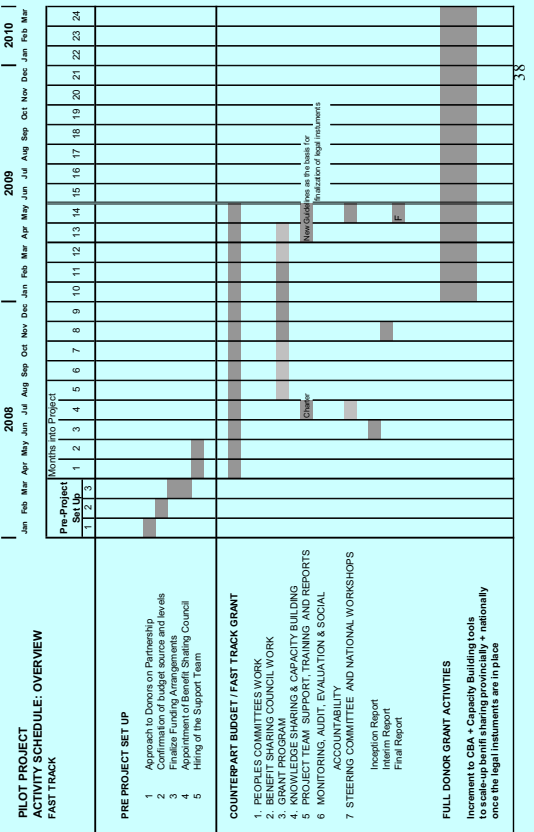
Component Activity	Consultant Service (real)	Equipment Procurement	Awareness Capacity Building / Other	Allowances	Travel and Subsistence (All)	Grant Awards	Total
1. PEOPLES COMMITTEES WORK	0	0	3,636	26,545	6,095	0	36,267
2. BENEFIT SHARING COUNCIL WORK	0	0	0	25,455	24,127	0	50,909
3. GRANT PROGRAM	106,030	0	0	0	0	400,000	400,000
4. KNOWLEDGE SHARING & CAPACITY BUILDING	56,715	21,224	78,182	0	5,151	0	255,724
5. PROJECT TEAM SUPPORT, TRAINING AND REPORTS	26,871	0	4,364	0	19,224	0	104,862
6. MONITORING, AUDIT, EVALUATION & SOCIAL ACCOUNTABILITY	0	4,727	13,212	1,091	20,196	0	48,158
7. STEERING COMMITTEE AND NATIONAL WORKSHOPS	\$191,616	\$29,952	\$69,384	\$75,915	\$137,078	\$400,000	\$935,409
Activity Total							\$935,409
Contingency							\$93,541
Total Projected Budget							\$1,028,950

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Implementation Arrangements

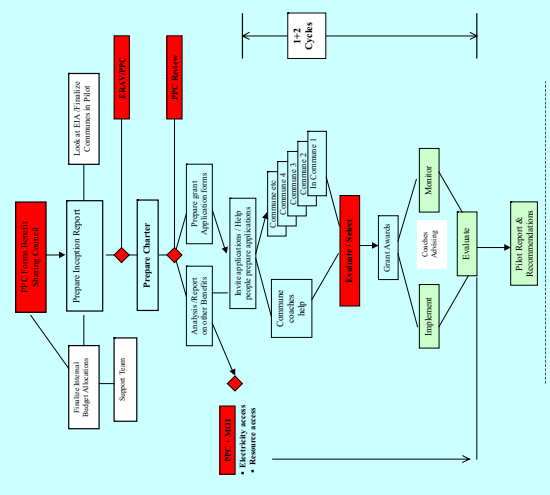


Provisional Schedule - Fast Track Option



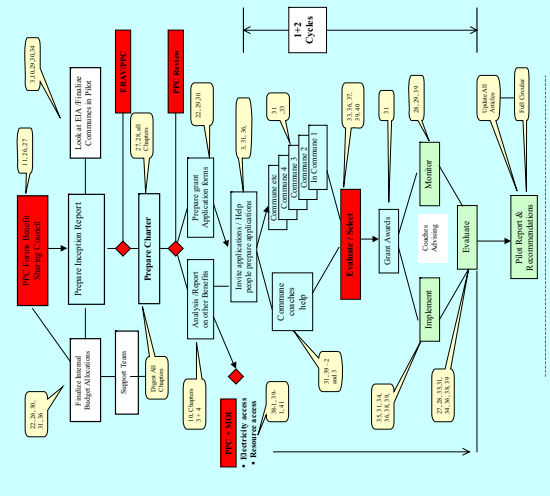
Pilot Activity Framework

Look at this in more Detail after the break



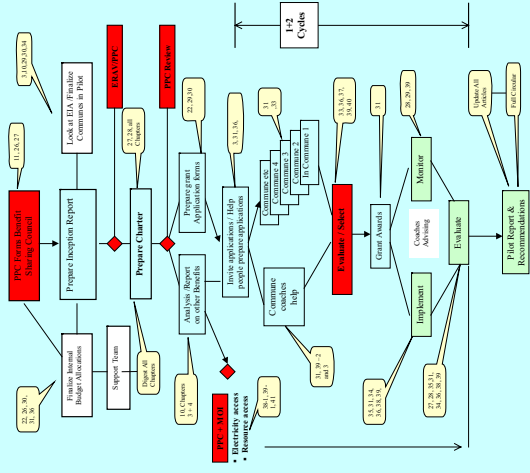
Activity to field test each article

With Article and Chapter references to the Guidelines



Activity Framework

With Article and Chapter references to the Guidelines



Timeline drawn by ERAV for Task Instruments

Q&A - Discussion + Questions to SC Members Present + Coffee / Tea

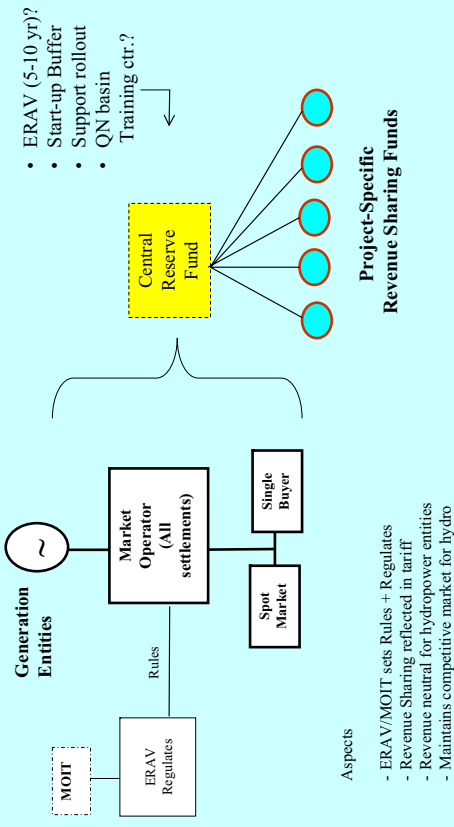
Contents of Presentations

1. Refresh on last workshop
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4. **Work plan - Part 2**
5. Next steps

Coffee Break

4. Work Plan – Part 2

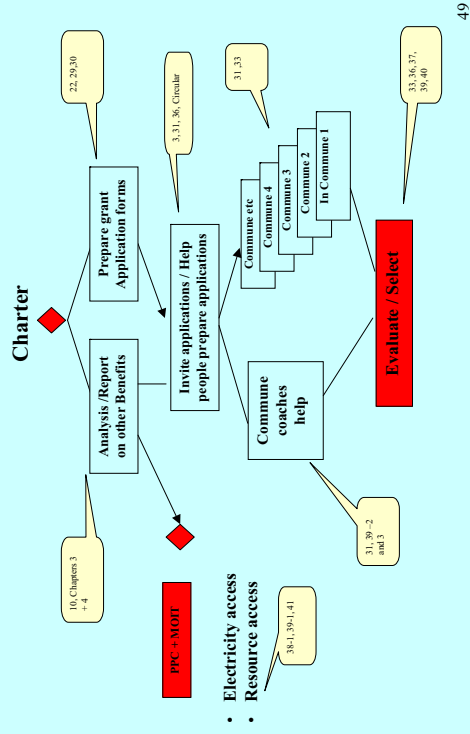
Revenue Sharing



From Power Market to Revenue Sharing Funds

Awarding grants + recommending measures

Testing 3 types of Benefit Sharing



Example Testing of Articles

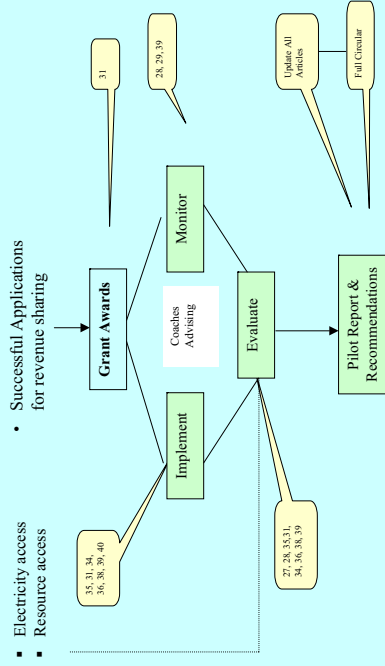
Article 22: Types of measures supported by revenue sharing funds

1. Measures supported by revenue sharing funds for hydropower projects shall include, but not be limited to:

- 1/ Grant contributions as incremental funding for local development assistance programs delivered through provincial or national target programs, such as ...
- 2/ Grant contributions to community-based activities funded in part by a contribution in kind from local communities; such as: ...
- 3/ Grant contributions to operate loan and credit facilities including those of a revolving nature, such as: ...
- 4/ Grant contributions to investment in expanding access to electrical services, when there is sufficient demand from eligible parties, such as: ..
- 5/ Grant contributions to other local investments people request, which Provincial People's Committee's deem appropriate for local socio-economic and cultural advancement, basing their decisions on advice of the benefit sharing Council.

Testing Delivery Measures + Reporting

Testing 3 types of Benefit Sharing



BSM Pilot: Activity Areas

1. People's Committees work
2. Benefit sharing council work
3. Grant program test
4. Knowledge sharing & capacity building
5. Project team support, training and reports
6. Monitoring, audit, evaluation & social accountability
7. Steering committee and national workshop logistics

Activity Area 1:

People's Committees work

	Month into Project																								
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	
1. PEOPLES COMMITTEES WORK																									
1.1 Meetings, Direction and Supervision																									
1.2 Awareness and Procedures Training																									
1.3 Knowledge Sharing																									
Provincial-Level																									
District-Level																									
Commune-Level																									
Provincial-Level																									
District-Level																									
Commune-Level																									
Information dissemination																									
Stakeholder Dialogue and Exchange																									

- Provincial, District and Commune levels (PPC involved intermittently)
- Awareness and orientation training
- Small budget for knowledge sharing among Peoples Committees and information dissemination
- Roles as specified in Guidelines modified as appropriate

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Activity Area 2:

Benefit sharing council work

	Month into Project																								
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	
2. BENEFIT SHARING COUNCIL WORK																									
2.1 Duties in Guidelines																									
2.2 On-Job Training of Council Members																									
Developing the Guidelines																									
Fund Charter content and preparation																									
Grant Application, evaluation and award																									
Implementation and M&E																									
Guidelines and Charter Revisions																									
Training Needs of Citizens																									

- Appointed by and reports to PPC. Meets regularly (monthly minimally)
- Roles as specified in Guidelines modified as appropriate
- Support team acts a “secretariat” to produce first versions
- Critical first task is the Fund Charter to serve as model also
- On-Job-training approach
- Donor support mainly extends timeframe for supervision of grants

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Activity Area 3:

Grant program

	Month into Project																								
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	
3. GRANT PROGRAM																									
3.1 Grants to Eligible Parties in Communes																									
Cycle 1 (steps of application, award, implementation and evaluation)																									
Cycle 2																									
Cycle 3																									

- One cycle: for CPB budget with restricted number of grant types to test the grant system working and delivery mechanisms
- Cycle means - application, evaluation, award, implementation, monitoring and evaluation)
- Two more cycles for incremental budget plus expanded range of grant awards

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Activity Area 4

Knowledge sharing & capacity building

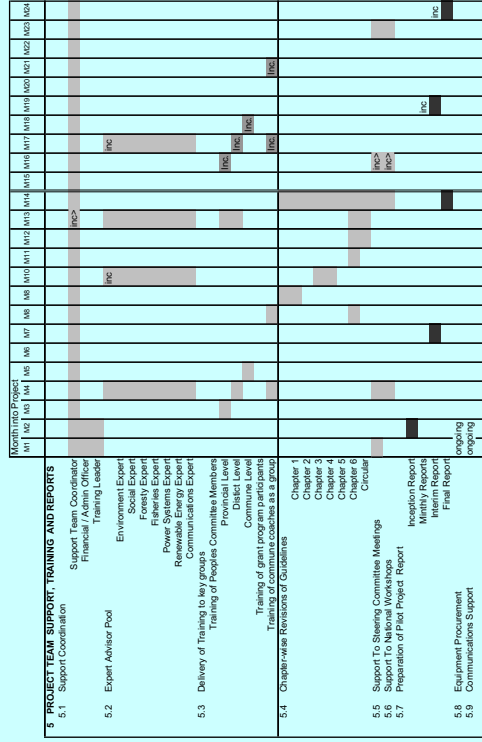
	Month into Project																								
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	
4. KNOWLEDGE SHARING & CAPACITY BUILDING																									
4.1 Field Coaching - Support to Grant Applicants																									
4.2 Annual Workshops for Pilot Project Participants																									
4.3 Field Coaching - Support to Grant Applicants																									
4.4 Local information dissemination																									
4.5 Preparation of tools to scale-up and transfer pilot experience to other projects:																									
4.6 Provincially Hosted Workshop: Quang Nam inviting other provinces																									
4.7 Technical Study Tour of Regional Experience framing																									
Legislation																									

- Field coach – provisionally one per commune living locally for day-to-day support to grant applications and implementation
- Training, exchanges information dissemination (radio, newsletter etc.)
- Increment adds
 - provincially hosted workshop for other Provinces
 - Scaling up tools (e.g. models, training course, operational manuals etc.)
 - Optional technical study tour for legislation and regulation aspects

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Activity Area 5:

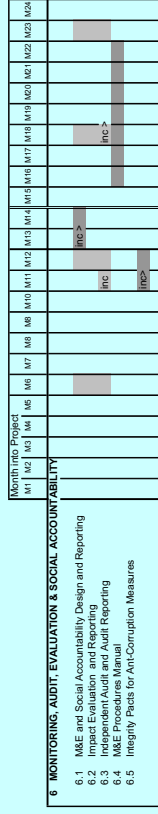
Support team, training and reports



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Activity Area 6:

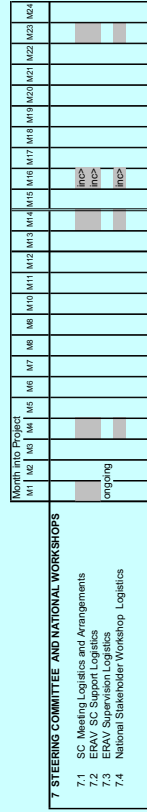
Monitoring, audit, evaluation & social accountability



- Local M&E expert to design forms and rules
- Social accountability and transparency around all decision criteria (in Charter) and information access on all grants / financial transactions
- Independent audit of Fund
- Local grants have built in cost for audit / monitoring
- Pilot Grant budget enhances above and adds
 - M&E Procedures manuals for BSM on all projects
 - Integrity Pact and anti-corruption tools in Charter
 - Stronger impact evaluation and link to poverty reduction targets⁵⁸

Activity Area 7:

Steering committee and national workshop logistics



- 3 SC Meetings (start, after Charter and to digest amendments / recommendations)
- National Stakeholder Workshops (i) to keep everyone informed (ii) bring in a wide range of inputs (iii) consensus building (iv) some international experience via INGO participants
- ERAV Staff technical support / supervision

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Financing Plan

- Base Case Option**
 - Counterpart Budget
 - Donal Grant (1 year + to arrange)
- Fast-Track Option**
 - Donor Grant 1 >CPB Activities
 - Rest of Donor Grant 1 + yr to arrange
- Other Strategic Partners**
- Partner Consortium Option**

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Other Strategic Partners

Contributions potentially three kinds

1. to Pilot Budget– or for selected components)
2. outside of Pilot Budget and parallel (like IUCN hiring for the guideline review)
3. built into current projects in A`Vuong area - link to pilot

Comment:

- Assume 1 year to obtain main donor / partner financing
- Strong interest among donor community for this theme and to advance sustainable hydropower development
- INGO Parties have already expressed some interest (IUCN, WWF, Transparency International)

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- Coffee Break*
4. Work plan- Part 2
 5. **Next steps**

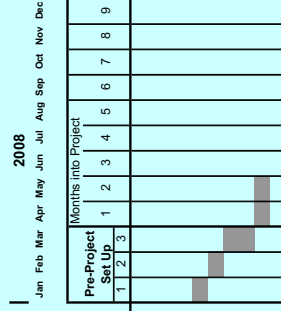
5. Next Steps

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Next Steps: Following the TA

1. Approach Donors + potential Strategic Partners
2. Reconfirmation of budget source and levels by Govt
3. Finalize funding arrangements
4. Appoint Benefit Sharing Council
5. Hire Support Team

PILOT PROJECT ACTIVITY SCHEDULE: OVERVIEW FAST TRACK



PRE PROJECT SET UP

1. Approach to Donors on Partnership
2. Confirmation of budget source and levels
3. Finalize Funding Arrangements
4. Appointment of Benefit Sharing Council
5. Hiring of the Support Team

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Q&A - Discussion + Questions to SC Members Present

Some Questions:

- What are the best ways to involve strategic partners?
- What is the best role for you the National Consultation Group during the Pilot?
- Composition ? Others to invite to National Consultation Group?

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Appendix G: Provincial Workshop Minutes and Presentation

From the Workshop Report prepared by the Institute for Energy Studies, IES

At the beginning of Stage 3 of this TA a provincial workshop was held in Tam Ky town, Quang Nam Province with provincial, district and commune levels, social organizations and local community representatives to explain the results of the focus group meetings about the draft guidelines and the views of the project affected people, the roles they would play in implementation and the expenditure level needed.

This workshop report was prepared in three parts.

Part 1 is the discussion at the main workshop. Part 2 is the discussion in the meeting with Quang Nam Province Leaders. Part 3 is the annexes, including the outline of the work plan and the lists of participants in these meetings.

Part 1: Provincial workshop in Quang Nam – Vietnam

I. TIME AND VENUE

Venue: Meeting room Number 6, Quang Nam province Convention Centre.

Time: From 8.00am to 11.45am, Friday, 21 September 2007.

II. PARTICIPANTS

The attendance of the workshop is as in below:

- Mr. Dang Hung, General Director of Electricity Regulatory Authority of Vietnam, Ministry of Industry and Trade.
- The Steering Committee Members, including:
 - Mr. Pham Manh Thang, Deputy General Director of Electricity Regulatory Authority of Vietnam, Ministry of Industry and Trade,
 - Mr. Do Duc Quan, Deputy General Director of Energy and Petroleum Department, Ministry of Industry and Trade,
 - Mr. Pham Cong Dinh, Economic and Industry Department, Ministry of Planning and Investment,
 - Mr. Pham Anh Dung, Appraisal and Environmental Impact Assessment Department, Ministry of Resource and Environment,
 - Mr. Vu Cong Lan, National Institute of Agriculture Planning and Project, Ministry of Agriculture and Rural Development,
 - Mr. Ho Viet Hao, Appraisal Department, EVN,
 - Mr. Nguyen Thai An, Economic and Estimation Department, EVN,
 - Mr. Le Van Hue, Electricity Management Division, Department of Industry of Quang Nam province.
 - Mr. Doan Van Binh, Deputy Director of Institute of Energy Science.
- Working Group Members, Ministry of Industry and Trade.
- Representatives of Quang Nam Provincial People Committee.
- Representatives of Department of Industry, Department of Finance, Department of Agriculture and Rural Development, Department of Labor, Invalid and Social Affairs, Department of Fisheries, Department of Resource and Environment, Department of Transport.
- Representatives of Vietnam Fatherland Front Committee, Woman Union and Farmer Union.
- Representatives of Hydro Power Management Board number 3.

- Representatives of Dong Giang, Tay Giang and Nam Giang District People Committee.
- The project team.

III. WORKSHOP CONTENT

The workshop included three main contents:

1. Benefit sharing introduction, Draft Guidelines on Benefit sharing Mechanism and introduction on work plan of the pilot project in A’Vuong project affected area in Quang Nam province.
2. Presentation to explain the results of the focus group meetings about the draft guidelines and the views of the project affected people.
3. Outline of the work plan for the pilot project in A’Vuong project affected area.

IV. DISCUSSION IN WORKSHOP

1. GENERAL DISCUSSION

The representatives of the workshop were highly concerned about benefit sharing mechanisms and reached the consensus on the realistic and necessary nature of benefit sharing. They also agreed that mechanisms should be implemented soon in order to bring benefit to the project affected people, because Quang Nam province has high potential for hydropower development.

Hydropower projects mainly located in the west of Quang Nam Province affect inundate nature forests (which take a long time to develop). Therefore the development of hydropower projects would affect not only the people but also the environment in upstream, downstream areas and the reservoirs areas.

In Vu Gia Thu Bon basin, hydropower development has taken 3.000 ha of land, of which 2/3 of the area is the nature forest (nature forests are a treasure and could not be replace by regeneration forest of the same value). Therefore, it would be necessary to take research on the affect and influence of the lost of nature forest.

Benefit sharing mechanism is a mechanism to ensure equality and should be applied in all hydropower projects, and should not be limited to hydropower projects with an installed capacity above 30MW.

Quang Nam had high potential for developing small hydropower projects. At the start of each project, everybody saw benefits from hydropower projects, but at the implementation time, the problems began to appear. In A’Vuong project, although it had had a large compensation expenditure to support the resettlement people, Quang Nam province itself still had to provide 3 billions VND for maintenance and stabilization of the resettlement area. Concurrently, Dong Giang District People Committee had to ask for 40 billions VND to support for resettlement people’s life and livelihood stabilization. Their estimate is it will take affected people at least 9 to 10 years to stabilize their lives (but still less than their original life

According to the Quang Nam hydropower development plan, the province will build up to 39 hydropower plants in the coming years. These plants will occupy a large areas of Quang Nam in which most of them are nature forest areas. Hence, the Quang Nam PPC advocates the need to replace the nature forest lost to reservoir inundation by regeneration forests. Otherwise, hydropower projects also affect to the downstream areas (changes of the current flow, influence on environment and aquatic ecosystems), affect hydro-transportation and livelihoods of people in downstream area.

With project affected people, it is necessary to take into account the adverse affect of the project on wet rice cultivation, while it is very difficult to create a wet rice field in mountainous area.

With people in reservoir area, ongoing support to stabilize their lives is very necessary. The development of benefit sharing mechanism will be helpful for this issue.

Nevertheless, it is important to avoid the development of a complicated mechanism with many procedures which are possible to become an obstacle when the project affected people wanted to approach to benefit sharing mechanism.

It also needs a reasonable consideration to the finance delivery of the revenue sharing fund because of its important and complication. If it is not transparent and simple, it would raise people's wonder and query in benefit sharing mechanism implementation.

The allocations of investment purpose and grants of revenue sharing funds must assure that people do not lose other grants or development assistance that they would normally receive.

Notwithstanding, the procedure of the reimbursement of revenue sharing funds must be public, transparent and take a shortest time. The grant application procedure in fact should be simple to avoid the abusiveness of the mechanism to gain benefit.

2. DISCUSSION ON FORMS OF BENEFIT SHARING AND SCOPE OF APPLICATION

Department of Finance:

- Relating to the first form of benefit sharing (Equitable sharing of electricity access and services): Contents of this issue should be clear in the Guidelines (Decree/Circular) to facilitate the implementation.
- Principle of source of revenue: the percentage rate should be depending on the scope of the power plant, and benefit sharing mechanism should be applied on all kinds of hydro power plant.
- The management and utilization of revenue sharing funds: This fund is the support source for project-affected people. Therefore to maximize the benefit of affected people, the Decree/Circular should clarify this issue. Moreover, it needs to identify the specific attribute of revenue sharing funds, was it one kind of State budget or not? If it was, it must comply with State budget utilization principle (Law on State budget) and the management and utilization of revenue sharing funds must be decided by Provincial People Assembly because of the reason above. The disbursement must be in accordance with Law on Construction, Law on Investment.

On the other hand if it was not considered as a part of State budget, the revenue sharing should be strictly managed by Benefit sharing Council. In this case, the Benefit sharing Council must carry out the fund management and administration function.

Department of Resources and Environment:

The first form of benefit sharing (Equitable sharing of electricity access and services) is needed because most of the people in affected areas are poor and do not have enough money to pay for electricity bill, but it should not be rank as the first priority because utilization of electricity is not the first purpose.

Absolutely agree with the second form of benefit sharing (Entitlements for enhancing resource access), but it should clarify the entitlement for practicing aquaculture in reservoir area because until now, there was no regulation on this issue.

On the fix percentage rate for revenue sharing, Quang Nam DoNRE proposed to use 5% due to the actual situation here, the percentage of 2% is quite low. Moreover, this rate should not be fixed but depends on the level of affect to the people around the project area and the rate of investment of the project.

Department of Agriculture and Rural Development:

The Guidelines should emphasize more on riverhead forests protection by create one article on this issue. Moreover, it should develop the reasonable sharing mechanism for resettlement people and for the people who host the resettlement to ensure stability development of their life. In these areas should add more preferential policy on electricity tariff.

Benefit sharing mechanism should be applied on all hydropower projects as one of hydropower plant's obligations in generating electricity to share the benefit between the beneficiaries in city and industrial zones with project affected people who lost their land, home and resource entitlement for development of hydropower project.

Department of Industry:

Quang Nam still has 14 communes that have no access the electricity. It is very difficult for the electrification in remote and mountainous areas because the complicated of terrain and the non-profitability of electricity business here. Therefore, DOI proposed the investor support for the electricity access and services for at least 2-3 communes in project area (by the first form of benefit sharing mechanism).

It is necessary to review the reasonable of 2% of fixed percentage rate of hydropower project. Investor must invest in the infrastructure outside power plant (for the project affected people). It is also needed to look at an option to allow the project affected people to become stock holdings of that project to ensure long-term benefit of affected people and stability development of hydropower asset.

3. DISCUSSION ON BENEFIT SHARING COUNCIL

Department of Resource and Environment:

The Benefit sharing Council should not supplement more members after establishment. It should be the responsibility of all level local authority in fund management and allocation.

Department of Agriculture and Rural Development:

Benefit sharing Council should encompass representatives from DARD because of the relation to the aquaculture, forestry and rural development.

Department of Fisheries:

The establishment of Benefit sharing Council and revenue sharing reimbursement should be clear, simple and fast. In other words, the time to process the procedures and allocate grant to project affected people should be the fastest and be able to avoid undeserved loss.

V. CONCLUSION

Mr. Dang Hung (General Director of ERAV):

Summary on the development and construction of large hydropower project:

- Thac Ba Hydro power plant: Built on the 60s, at that time the resettlement was not considered, therefore project affected people's life is still poor and have to face with many difficulties.

- Hoa Binh Hydro power plant: Made many progress, considered to the resettlement program but until now, there were still many communes which were out of electricity services, people's life is not

ensured. The Government decided to leave the entire of the resource tax (at about 80 billion VND per year) for Hoa Binh and Son La province to support for project affected people but there were a part of project affected people were received this support because the investment, support for development were carried out by PPCs.

- Son La Hydro power plant: is now in construction; the Government had made a decision on the resettlement program with the average at 800 million VND per household per year for people in 3 affected provinces.

It is necessary to develop an assessment and monitor mechanism for benefit sharing to make effect on the utilization of grant. The developed mechanism must be in accordance with actual, ensure the transparency to avoid the difficulty for the both side (the executive side and the beneficiaries) in implementation in the future.

It is needed to identify clearly the relevant group, including the beneficiaries in city and industrial zones and project affected people who lost their land, home and resource entitlement for development of hydropower project. Benefit sharing Mechanism will be carry out in parallel of the “pass-through” tariff which will pass all the generation and distribution cost to the end-consumer.

ERAV is looking forward to the cooperation of local authorities in developing this mechanism to stability develop provincial economy-social.

Mr. Pham Manh Thang (Deputy General Director of ERAV):

After finalization of draft Guidelines, ERAV will cooperate with the ADB to look for the sponsor to take up the second phase of the project – implementation of the pilot project in A’Vuong-Quang Nam. This is the new issue in Vietnam; therefore, this mechanism should be gradually amend to be accordance with Vietnam’s actual situation. ERAV request all the representatives to study on the workshop material and give us back your comments in writing.

2. PART 2: MEETING WITH QUANG NAM PROVINCE LEADERS

Time: From 2pm to 4pm, Friday, 21 September 2007.

Venue: Meeting room Number 1, Quang Nam PPC's office.

2.1 I. PARTICIPANTS

- Mr. Dang Hung, General Director of Electricity Regulatory Authority of Vietnam, Ministry of Industry and Trade.
- Mr. Le Minh Anh, Deputy General Director of Quang Nam PPC.
- Mr. Dinh Van Thu, Head of Quang Nam PPC Office.
- The Steering Committee Members, including:
 - + Mr. Pham Manh Thang, Deputy General Director of Electricity Regulatory Authority of Vietnam, Ministry of Industry and Trade,
 - + Mr. Do Duc Quan, Deputy General Director of Energy and Petroleum Department, Ministry of Industry and Trade,
 - + Mr. Pham Cong Dinh, Economic and Industry Department, Ministry of Planning and Investment,
 - + Mr. Pham Anh Dung, Appraisal and Environmental Impact Assessment Department, Ministry of Resource and Environment,
 - + Mr. Vu Cong Lan, National Institute of Agriculture Planning and Project, Ministry of Agriculture and Rural Development,
 - + Mr. Ho Viet Hao, Appraisal Department, EVN,
 - + Mr. Nguyen Thai An, Economic and Estimation Department, EVN.
 - Mr. Doan Van Binh, Deputy Director of Institute of Energy Science.
- Working Group Members, Ministry of Industry and Trade.
- Representatives of Department of Industry, Department of Finance, Department of Agriculture and Rural Development, Department of Labor, Invalid and Social Affairs, Department of Fisheries, Department of Resource and Environment, Department of Transport.
- Representatives of Hydro Power Management Board number 3.
- Representatives of Dong Giang and Nam Giang District People Committee.
- The project team.

II. DISCUSSIONS

Representatives summarized their comments, views and solutions on implementation of benefit sharing mechanism.

All of them highly welcomed the benefit sharing mechanism and reached the consensus on the realistic and necessary nature of benefit sharing mechanism in Quang Nam Province. They also agreed this mechanism should be soon implemented to bring the benefit to affected people.

On the principle of establishment of finance source: the percentage rate should be depended on the scope of hydropower project. Concurrently, the scope of application should be all hydro power plants. Funds management and utilization: in Decree/Circular should stipulate clearly on the eligible parties, procedures and mechanism to operate revenue sharing funds.

It also needs to clarify if the revenue sharing funds were part of State budget. If it was, it needs to comply with the Law on State budget.

On the other hand, if it was not, the revenue sharing should be strictly managed by Benefit sharing Council. In this case, the Benefit sharing Council must carry out the fund management and administration function.

Mr. Le Minh Anh, Deputy General Director of Quang Nam PPC

The development and implementation of benefit sharing mechanism is very helpful for hydropower project affected people. Vu Gia Thu Bon River in Quang Nam province is one of four rivers, which have the highest potential in developing hydropower in Vietnam. Quang Nam PPC is absolutely advocated to this mechanism and will cooperate with ERAV to operate the pilot project to reach success and to issue Decree on Benefit sharing Mechanism in the entirety of Vietnam.

The implementation of this mechanism will need some solutions to ensure the project-affected people are the beneficiaries.

Related to the disbursement of revenue sharing fund, if this fund was one part of State budget, it would have to comply with the Law on State Budget. Because of the particularization of revenue sharing funds, we should study to find the solution to simplify the disbursement and reimbursement procedures, to ensure the shortest time to deliver money to affected people.

Hence, Benefit sharing council must ensure to strictly manage this funds but not raise the administration cost. In daily work, benefit-sharing council should refer to Law on Labour, Law on Investment, etc... to support for the fund management.

Related to the scope of application, with its own attributes, benefit sharing mechanism should be applied in all hydro power project, instead of limited to projects which have install capacity upper than 30MW as in present. Quang Nam PPC absolutely agreed with the way to implement this mechanism by carry out the pilot project first, then issue the Decree in the entirety of Vietnam. However, the content of Decree/Circular should be more clearly and in more detail to facilitate our Province in application and implementation.

As assignment of Quang Nam PPC, Quang Nam DOI, DOF, DONRE, DARD, Ethnic Committee are responsible to cooperate with ERAV in develop the Decree/Circular on Benefit sharing Mechanism and in implementation of the pilot project in A'Vuong, Quang Nam.

III. CONCLUSION

It is necessary to get the close cooperation between Quang Nam PPC and ERAV in testing the implementation of benefit sharing mechanism experience through the pilot project in A'Vuong, Quang Nam to help finalize the legal instruments.

This is the new issue in Vietnam; therefore, this mechanism should be gradually amend to be accordance with Vietnam factual situation.

It is necessary to develop an assessment and monitoring mechanism for benefit sharing to make effect on the utilization of revenue sharing grants. The developed mechanism must be in accordance with

the actual development needs and situation, ensure the transparency to avoid difficulty for both sides (the executive side and the beneficiaries) in implementation of benefit sharing in the future.

Part 3: Annexes

1. Content of the Work plan to be presented in the workshop

Main Purpose:

- Work out the work plan for a specific pilot project, which will be applied in A'Vuong hydropower project area.
- Collect feed back on local priorities in implementation of benefit sharing Mechanism.
- Primarily comments on the feasibility of the mechanism implementation in actual situation.

Outline of the work plan

- Preparation:
 - Quang Nam PPC Decision on establishment of Benefit sharing Council (Management Board and Working Group)
 - Establishment of apparatus and training
 - Develop and issue the Revenue Sharing Funds Charter.
- Operation:
 - Allocate the proportion of grant
 - Guide affected people in application
 - Receive and assess the application
 - Monitor the reimbursement and grant utilization
- Assessment and inference of experience:
 - Experience in establish the apparatus, revenue sharing funds utilization procedures.

Human Resources

- Steering Committee (~5):
 - Chairman: PPC leader
 - Representatives from related Departments, Districts and Social Organizations.
- Working Group (~10):
 - Chairman and Members: Representatives of DOF, DOI, DoNRE, DARD, Woman Union.
 - Accountant (1), secretary (1), public agents (2-3): full time
 - International/National Consultant: part time

Budget required for pilot project

- Sources: ODA / State Budget
- Projected budgets:
 - Performance Activities (pilot investment)
 - Primary budget for revolving fund.
 - Training and workshop (start and finish)
 - Cost for administration
 - Remuneration
 - Travel

2. List of Participant on Provincial workshop.

3. List of Participant on Meeting with Quang Nam province Leaders.

Endnotes

Appendix H: Stakeholder Analysis and Consultation Plan

Technical Note 1

Purpose of this Note

1. Technical Note 1 is presented in 3 parts:

Part 1	Provides a generic stakeholder analysis that considers the potential longer-term roles in benefit sharing mechanisms
Part 2	Identifies NGO/ CSO organizations now working with project-affected communities, who represent potential strategic partners for the Pilot Project
Part 3	Outlines the Consultation & Information Dissemination Plan for the full duration of the TA

Note: Part 3 is compiled in the Final TA report Annexes. The full note is available from ERAV.

Part 3: Consultation and Information Dissemination Plan

3.1. Consultation Plan

2. The Consultation Plan focuses on stakeholders for this TA Projects and sets out how the primary and secondary stakeholders will be engaged during the TA.

Primary Stakeholders:	Are shown as categories 1 and 2 in the Stakeholder Analysis tables in Part A of this Technical Note. These include Vietnamese institutions, organizations and interests to invite to the stakeholder workshops, as well as international organizations.
Secondary Stakeholders:	Are Vietnamese institutions, organizations and interests who were shown as categories 3 and 4 in the Stakeholder Analysis in Part A.

□ Principles

The general principles behind the selection of the consultation arrangements support the adoption of a collaborative approach for this TA. They are:

- To establish an open and transparent process with timely access to information for all stakeholders and interested parties;
- Target the key stakeholders, but also allow other potential stakeholders and interested parties to self-identify, participate or receive information;
- Pro-actively solicit the insights and views national-level stakeholders from different disciplines on the TA policy review aspects and draft guidelines;
- Proactively solicit and adequately reflect the views of the target beneficiaries, government and social organizations who will participate in the Pilot Project;
- Encourage inputs and solicit insights from international stakeholders working in Viet Nam in related fields such as power sector reform, rural development, sustainable management of natural resources, poverty alleviation and ethnic community support (e.g. INGOs and donors);

- Provide opportunities for stakeholders to establish relations and exchange views (i.e. in workshop settings);
- Ensure the TA outputs are widely and effectively disseminated; and
- Establish a knowledge base in ERAV with the TA materials, as well as key resource documents and information supplied by stakeholders

□ **Rationale**

The reasons why a collaborative approach is adopted include the interests to:

- Improve awareness and understanding of the principles of benefit sharing;
- Improve coordination and effectiveness in undertaking the TA tasks;
- Improve the quality of the outputs;
- To build consensus and ownership of the outputs; and
- To help ERAV understand the range issues to address to reach wider consensus on future steps and collaboration to formulate the sector policy framework.

□ **Key Messages**

3. These will be introduced in discussions with the stakeholders to build consensus. Provisional key messages are presented as follows. These will be reviewed in the first Steering Committee meeting. They can be refined as the project proceeds based on feedback and interactions with stakeholders and ADB comment.

Key Messages	
1	Benefit sharing is a policy tool used in many countries to balance economic, social and environmental dimensions in sustainable development of the power sector.
2	Benefit sharing goes beyond one-time compensation payments and short-term resettlement support. It treats the local people who “host” a project in their locality, or basin, as legitimate partners and first among the project beneficiaries.
3	Benefit Sharing offers direct advantages for power sector development and complements wider socio-economic strategies. These benefits include: <ul style="list-style-type: none"> - A reduction in the poverty risk faced by affected people when hydropower projects are introduced into their areas; - Increased public acceptance of hydropower projects and reduction in the risks of costly delays in the project due to controversy; - Improved capacity to mobilize international financing for hydropower development by conforming sustainable development practices
4	General principles of benefit sharing are recognized in Viet Nam’s current legislation and sector policies. But at the project level, they tend to be short term and narrowly defined for resettlement only. They exclude other people affected by hydropower project in upstream and downstream areas.
5	Benefit sharing enables consumers of electricity services in cities and industry to equitably share benefits of hydropower development with the project-affected communities who give up land or resource access (and full costs and risks)

6	The longer-term policy framework can be developed in stages parallel to the power market reform and electricity tariff reform.
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A number of secondary and more detailed messages are included as attachment 1.

□ **Responses to stakeholder concerns**

4. ERAV will also needs to respond to concerns that individual stakeholders may raise that might inhibit consensus building if they are not fully answered. The following are suggested response to such questions. They are expressed in terms of perceptions (barriers) to overcome that may slow acceptance of benefit sharing principles and possibly limit the amount of money available to benefit sharing to very small amounts below critical thresholds. The responses are also related to the key messages noted above and the collection of secondary messages listed in annex 1.

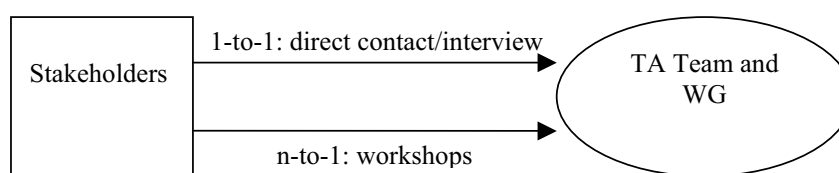
Potential perception – barrier to consensus building	Possible Response by ERAV
Project affected people already receive enough support (in Decree 197)	<ul style="list-style-type: none"> ▪ Decree 197 focuses on Displace People and others who give up assets. It does not cover other project affected groups living upstream or downstream of projects, or people who could play an important role in sustainable management of hydropower. ▪ Livelihood restoration support for DP's under Decree 197 is normally extended for one year for displaced people, but can be extended to 3 years on projects jointly financed by ODA funds. ▪ Vietnamese and international experience shows that re-establishing livelihoods is a long-term process.
Project affected people already share the benefit of electrical services	<ul style="list-style-type: none"> ▪ Expanding access to electrical services in the project area is an extremely valuable form of benefit sharing. ▪ However, in many areas poor families do not have dwellings suited to power connection. Electricity services may not be the immediate priority or first preference of PAP, especially where livelihoods if livelihoods need to be restored first. ▪ All citizens are entitled to electricity services. What benefit sharing addresses is the fact that project affected people face both the cost as well as the potential benefits ▪ Mechanisms to target rural electrification funds to project affected people can complement mechanisms to share monetary benefits according to development needs and preferences
Benefit sharing is not conducive to commercial operations or power market reform	<ul style="list-style-type: none"> ▪ All hydropower projects would contribute a small portion of the revenues they generate to benefit sharing ▪ Applied in a consistent manner, it will not affect the commercial competitiveness of individual hydropower projects ▪ The arrangement will be revenue neutral for the power industry.

Benefit sharing will increase electricity tariffs	<ul style="list-style-type: none"> ▪ Benefit sharing is really an arrangement between the households and communities affected by hydropower projects and consumers of electricity services in towns, cities and industry. ▪ It is normally done through the tariff mechanism. International experience shows the amounts may be small - but at the same time very significant and have a large development impact. ▪ The main policy challenge is to strike a balance between a meaningful level of benefit sharing and the impact on tariffs.
Benefit sharing is too complex and complicated for Viet Nam	<ul style="list-style-type: none"> ▪ Benefit sharing funds can be easily collected in the power market system under development today. ▪ The funding of measures from these resources can be readily accommodated in the present development system without creating new institutions. ▪ What is important is to factor benefit sharing arrangements into the normal project development cycle
Benefit sharing is only for rich countries	<ul style="list-style-type: none"> ▪ There are many examples in developed and developing countries alike where local communities who give up their land entitlements or natural resource access for a hydropower project are provided with a monetary share of project revenues. ▪ Experience over the last decade shows that societies with low national incomes, or a large and growing gap in income between urban and rural areas often gain the most introducing the policy.

□ **Consultation Mechanisms**

5. Consultations with stakeholders will be carried out both individually and collectively with all stakeholders together in workshop settings. The workshops provide an opportunity for stakeholders to interact with each other and exchange views – which provide both fertile ground for ideas to emerge and is essential to consensus building.

The figure below illustrates the general interaction with stakeholders:



Group discussion information acquisition and consensus method

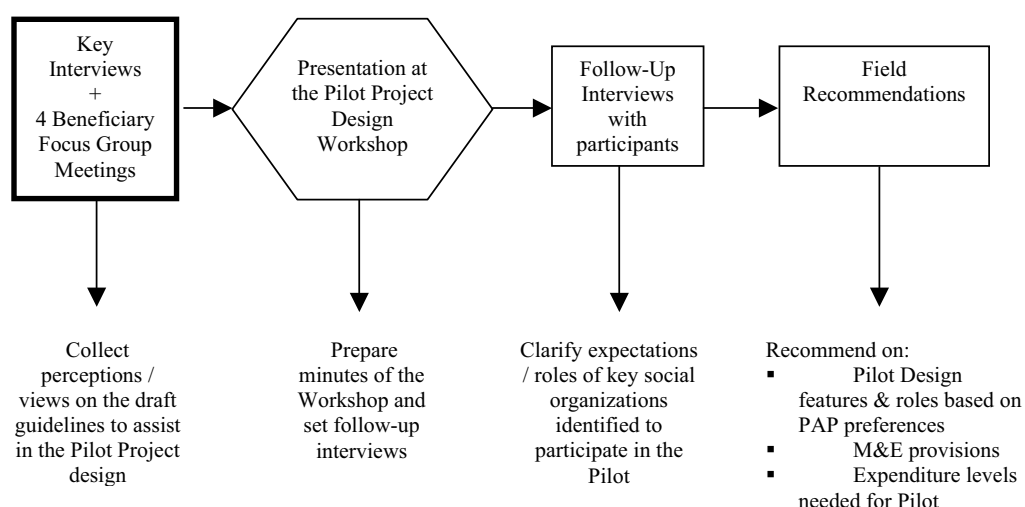
The expected consultations with national –level stakeholders will be framed around 3 workshops include:

- 3 National Level Workshops – with the multi-stakeholder national consultation group with each workshop held in Hanoi.

Provisional Agenda	
<p>Workshop 1 – introducing the TA and policy review findings</p> <p>Component 1 completion</p>	<p>Presentation:</p> <ul style="list-style-type: none"> i. To present the TA objectives and scope (the presentation will be based on the Power Point presentation made at the first SC Meeting.) ii. To present the findings of the policy review (Component 1 work - Technical Note 2) looking at the extent to which current legislation and policies enables benefit-sharing mechanisms. <p>Feedback:</p> <ul style="list-style-type: none"> iii. To solicit opinion and feedback from stakeholders on the findings of the policy review and obtain views on what may be needed to establish an explicit sector policy framework for local benefit sharing in the longer term iv. To solicit views and opinion regarding the format and content of the draft guidelines to be prepared as the next step in the second part of the TA (component 2).
<p>Workshop 2 – on the draft guidelines</p> <p>Component 2 Completion</p>	<ul style="list-style-type: none"> - To receive a presentation on the draft guidelines and solicit feedback on their suitability and application - To solicit views regarding the design and work plan for the pilot project in the third part of the TA
<p>Workshop 3 – on the pilot project and TA result</p> <p>Component 3 completion</p>	<ul style="list-style-type: none"> - To receive a presentation on the overall TA results and proposals - To solicit views regarding the next steps, the roles that stakeholders may play and the support for the pilot project implementation (including the financing plan)

The consultations with provincial-level stakeholders as well as grass-roots beneficiaries will primarily focus on the design and arrangements for the Pilot project in Component 3 of the TA. The general arrangement is illustrated in the following figure drawn from the TA Inception report.

Process for survey and local consultation on the Pilot Project: local preferences for the work plan



- Pilot Workshop –will be a held in the province of the pilot (tentatively Quang Nam) with district and commune representatives attending.

Provisional Agenda:	
Provincial Workshop	<ul style="list-style-type: none"> - To have discussion on the TA objectives, scope and pilot project aims - To solicit views regarding the design and implementation of the pilot project and supporting roles and arrangements

In addition to the workshops other direct consultation by the TA staff with organizations and individuals are:

- Individual meetings with organizations – at various levels and on various issues
- Engagement with project affected communities via the 3-Project Survey in Component 2 and the field consultation to prepare the Pilot Project Work Plan in Component 3

□ **Provisional Composition of the national consultation group**

The following is a provisional list of people and organizations that ERAV may invite to participate in the national consultation workshops.

- Steering Committee Members
- ADB Representatives (1)
- TA Consultants (3)

Representatives of:

- Other Ministries (to be specified)
- General Departments of the organizations of Steering Committee Members (to be specified)
- Power Sector Entities (to be specified, e.g. Project Management Board Rep)
- National Representatives of Social Organizations (to be specified)
- Independent Sector (to be specified)
- Local and International NGOs / CSOs (to be specified)
 - E.g. Centre for Rural Communities Research and Development (CCRD) in Hanoi (supported by MoNRE)
 - WWF / IUCN – environment oriented INGOs
- Other Donor Agencies (to be specified)

□ **Provisional Composition of the Provincial / local consultation group**

The following is a general list of people and organizations that ERAV may invite to participate in the provincial/local workshop to discuss the pilot project design and implementation arrangements. The list and individual participants will be finalized in Component 2 tasks, after the field survey work

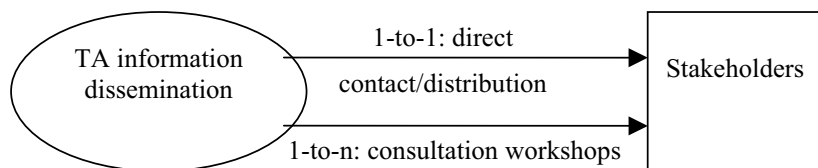
- Steering Committee Members
- ADB Representatives (1)
- TA Consultants (3)

Representatives of:

- PPC (to be specified)
- Line Ministry Departments of Steering Committee Members (specify)
- DPC / Commune for the Pilot Project
- Representatives of Social Organizations working in the Pilot Project Area (specify)
- Independent Sector (specify)
- Local NGOs / CSOs (specify)
- Other Donor Agencies (specify)

2.2 **Information Dissemination Plan**

6. The following figure illustrates the dissemination plan.



Information dissemination method

□ **General Principles / Objectives:**

- Use the national and local consultation group as a primary means of information dissemination and encourage them to provide information to their networks and within the respective organizations
- Otherwise ensure the project outputs are widely available to interested parties in Vietnam and through the ADB dissemination capacities to the interested international and regional parties
- Provide timely dissemination of information as the project progresses to maximize feedback and comment in the outputs.

□ **Dissemination Mechanisms**

Primary:

- Through the multi-agency steering committee to inform their respective organizations
- Through the multi-stakeholder national level consultation group and through the local consultation group and National Consultation Group for TA

- Targeted dissemination of the key project outputs to key stakeholder interests in Vietnam on both the policy level and the project level.
- Formal and informal consultation with the project affected communities and the entities that would be involved in implementation of the pilot project.
- International access through the ADB web site

Secondary:

As the TA project proceeds, other dissemination mechanisms will be explored such as through interviews and placement of information on the project in the local media and in websites of environment, social or power sector organizations in Vietnam.

A CD will also be prepared and disseminated that provides key resource documents on benefit sharing including the TA materials and international documents.

Annex 1:

The following is as list of 10 secondary messages for stakeholders. These can be used by ERAV's in discussions with stakeholders, either in response to questions raised, or as part of awareness building:

- i. Most hydropower projects have a unique and large social and environmental “footprint”. Moreover, many hydropower sites to be developed in Viet Nam are located the poorest areas of the country, where many ethnic communities live.
- ii. Hydropower projects can lead to greater improvement risk for people in the project area – unless accompanied measures to adjust to the new conditions, such as changes to ecosystem services (e.g. food, fibre, water access). Forest, wetland and river ecosystem (that are part of the natural resource system) all play an important role in the livelihood, health and welfare of rural people. Improve local capacity to manage ecosystem services transformed by hydropower operation is an important element in benefit sharing.
- iii. Two of the main principles driving benefit sharing are:
 - Firstly, to internalize the cost of the ongoing social and environment components of hydropower projects in the electricity tariff. This:
 - Enables rural people and communities who give up land or resource access” for the project to have a share in the “economic rent” of the project
 - Enables the main consumers of electricity services in towns, cities and in industry to more equitably share the many benefits of hydropower development with the project-affected communities (as well as the full costs and risks).
 - Financing mechanisms seek to internalize costs of social and environment components of hydropower projects in the electricity tariff (user pay). This reduces the need for government subsidy (from taxes) to help the communities adjust to the new living conditions the project brings.

- Secondly, project affected people should be viewed as partners in the project.
 - o Local communities who give up land or resource access for a hydropower project for the benefit of power consumers outside their area are entitled to a monetary share of project revenues to support their local development needs.
- iv. Typically there is strong support for local benefit sharing at the provincial, district and local levels. It is important to reflect provincial and local views in establishing a policy framework on benefit sharing and selecting implementation mechanisms.
- v. International experience in many developing countries shows that local benefit sharing is positive from all stakeholder perspectives. For example:
 - a. From the beneficiary perspective: It allows project-affected people and traditional resource users to become partners in the hydropower project they “host” in their local community and be among the first beneficiaries.
 - b. From the government perspective: benefit sharing is a practical policy tool to achieve greater social inclusiveness and to balance social, economic and environmental factors in the planning, design, implementation and operation of projects.
 - c. From the hydropower operator perspective, benefit sharing increases capacity to work effectively with local communities. Good community relations are important for a number of reasons, ranging from cooperation in land management measures that improve the operational life and performance of the reservoir, to cooperation with implementing environment mitigation measures as prescribed by law.
 - d. From an investor perspective: the presence of an explicit policy framework and practical provisions for benefit sharing is an indicator that the affected communities are likely to support the project – all things considered. As a consequence, the investor’s risk exposure is reduced and investors are more inclined to become financing partners.
- vi. Benefit sharing measures are applied at the operation stages and are long term in nature. However, planning for benefit sharing needs to be stated in the project preparation and construction stages. Discussions on the benefit sharing arrangement should start during the EIA and RAP studies.
- vii. A common feature of successful programs in other countries is the beneficiaries decide how funds will be used and the delivery of benefits is organized around their preferences. The role of central government is to provide the enabling policy and legal framework and establish rules on the level of benefit sharing (by prescription or negotiation) and the financing mechanisms. Local government, together with agencies, social organizations and civil society interests who work closely with project-affected groups would provide guidance and support to design the delivery mechanisms and actual participate in delivery of the measures in a manner appropriate to their normal roles.

- viii. A second common feature of many successful programs is the sustainability dimension. The inherent principle is local benefit sharing should be long-term in nature and continue over the economic life of the hydropower project. Moreover, the mechanisms and actual programs to deliver benefits must be adaptively managed as circumstances and development priorities in the basin evolve over time. This is important given the long-life of most infrastructure projects.
- ix. Once the rationale for benefit sharing is established a key question that comes to the forefront is what level of benefit sharing is appropriate. This is to balance between a meaningful investment in the development needs of project affected people, on the one hand, and the impact on general electricity tariffs that all consumers will feel, on the other hand (e.g. the minimum amount of financing to achieve measurable improvement in the livelihoods and welfare of the project-affected groups). This touches on the willingness of electricity consumers to share what may be presented as legitimate costs of hydropower development once they are informed. Government must balance these two considerations in framing the regulations.
- x. The pilot project developed under this TA test and evaluate both the level of financing required for effective benefit sharing and the most effective delivery mechanisms. It will be modest, as it will seek to establish the principles for benefit sharing and consensus on the next steps. The delivery mechanisms will involve existing social organizations and no new institutional arrangements are proposed.

Appendix I: TOR For Inter-Agency Steering Committee

Terms of Reference

Inter-Agency Steering Committee

For Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects in Viet Nam

Asian Development Bank TA-4689 (VIE)

Background:

The Government is collaborating with the Asian Development Bank (ADB) on the Technical Assistance Project (TA) mentioned above, which will be undertaken in the April 2006 - January 2007 timeframe. The Ministry of Industry is the designated Executing Agency (EA) and the Electricity Regulatory Authority of Vietnam (ERAV) is the Implementing Agency.

The TA Project focuses on the following outputs: (i.) Review of the effectiveness and relevance of the current regulations, legislation and other policies for sharing the benefits of power generation projects with affected people, including provisions for sustainably financing environment management aspects which impact on rural livelihoods; (ii) Preparation of guidelines for benefit sharing mechanisms in line with the Vietnamese context incorporating lessons learned from other countries; and, (iii) preparation of a detailed work plan to implement the proposed guidelines on pilot basis for a selected project. The TA is viewed as a first step to strengthen the sector policy framework to enable benefit sharing mechanisms and their sustainable financing.

As noted below, the TA project has 3 components linked to the outputs.

Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects		
Component 1	Component 2	Component 3
Situation analysis and review of existing policies to enable benefit sharing on hydropower projects	Guidelines for pilot implementation of benefit sharing mechanisms on the selected project(s)	Detailed workplan to pilot test the guidelines and prepare guiding principles to strengthen the enabling sector policy framework

A national consultative group consisting of government, non-government, civil society and private sector stakeholders will be formed to provide feedback on each Component of the TA. In Component 3, consultations will be held with agencies and affected communities in the area selected for the Pilot. The TA components and consultation workshops are illustrated in the Figure in Attachment 1.

The Inter-Agency Steering Committee (SC) supported by a TA Working Group (TA-WG) will provide overall guidance for the TA. The TA Working Group is responsible for organizing all the day-to-day work for SC, including (but not limited): study components, SC meeting organization, meeting report preparation, comments and feedback for report collection and integration, preparation for SC members mission to pilot project site and to participate in pilot project meeting.

The following is the proposed composition and Terms of Reference for the Steering Committee, which the Steering Committee will have authority to revise.

Steering Committee Composition

Including 10 representatives from the following organizations:

- Ministry of Industry (MoI) - Executing Agency
- ERAV
- Ministry of Finance (MoF)
- Ministry of Planning (MPI)
- Ministry of Agriculture and Rural Development (MARD)
- Ministry of Natural Resources and Environment (MoNRE)
- Electricity Authority of Vietnam (EVN)
- PECC
- Provincial People's Committee (PPC)

TA Working Group Composition

Including 4 – 5 experts from ERAV and MOI.

Functions of the Steering Committee

These provisionally include:

- Providing overall directional guidance to the Implementing Agency on the scope and activities of the TA;
- Assisting in clarifying the objectives and identifying the target audiences for the policy matters associated with the development of the guidelines, and to identify priority coordination requirements at the national level;
- Providing directional guidance on the effectiveness and relevance of current regulations, legislation and other policies for sharing benefits of power generation projects with affected people;
- Providing directional guidance on the evaluation of alternative benefit sharing mechanism, appropriate to Vietnam and those to incorporate in the guidelines;
- Participating in workshops with the national consultation group and for the Pilot project design;
- Assisting in facilitation greater awareness of benefit sharing principles and the draft guidelines in their respective Ministries and Agencies;
- Providing strategic guidance on the formulation and recommendation of guiding principles for future strengthening of the sector policy framework.

Proposed Meeting Schedule

It is anticipated that 7 meetings of the Steering Committee will be held as follows:

During Component 1:

- 1st Meeting: - To review and give comments on the situation analysis report prepared by the TA Consultants and participate in a SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats)
- 2nd Meeting: - To participate in the 1st National Consultation Workshop as a Panel

During Component 2

- 3rd Meeting: - To review and give comments for completing the draft generic guidelines report for benefit sharing mechanisms and finalize the pilot project selection
- 4th Meeting: - To participate in the 2nd National Consultation Workshop as a Panel

During Component 3

- 5th Meeting: - To participate in the Local Consultation Workshop (in the area of the pilot project)
- 6th Meeting: - To review and give comments for completing the Workplan for the Pilot and recommendations on the Guiding Principles for the sector Policy Framework
- 7th Meeting: - To participate in the final National Consultation Workshop as a Panel

Members of the Steering Committee will also be invited to comment on the main documents as they become available.

Reference Materials:

Enclosed is a copy of the TA Memorandum agreed to between the Government and the ADB elaborating the rationale and components of the TA Project. The TA Inception Report currently under preparation will be available by mid-May 2006.

Attachment 1: Schematic Representation of the TA Components, Consultation Workshops and Outputs

Note: See Figure 6 in the Inception Report

Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects in Viet Nam

Asian Development Bank TA-4689 (VIE)

Final Report

**Volume 3
Field Report Appendices**

Prepared for the Electricity Regulatory Authority of Vietnam
Implementing Agency for TA-4689 (VIE)

Prepared in cooperation with:
TA Working Group Members in ERAV

By

Institute of Energy Science and
National Institute of Agricultural Planning and Projection

Technical Comments by:
Lawrence J.M. Haas, UK

December 2007

SUMMARY

This is the 3rd and final volume of the Final Report for ADB TA-4689 (VIE) that supports the development of benefit sharing mechanisms on hydropower projects in Viet Nam, as part of the government effort to advance sustainable development of the power sector.

This Volume 3 contains the following:

- [Appendix J:](#) Rapid Appraisal Report on the Song-Bung 4 Project – Component 2 of the TA
- [Appendix K:](#) Rapid Appraisal Report on the Song Hinh Project – Component 2 of the TA
- [Appendix L:](#) Rapid Appraisal Report on the A’Vuong Project – Component 2 of the TA
- [Appendix M:](#) Generalized findings across the 3 rapid appraisals
- [Appendix N:](#) Field Report on the A’Vuong Hydropower Project - Input to the work plan for the Pilot

Please note the field reports were not subject to detailed language edit.

**CONTENTS OF THE FINAL TA REPORT
ROAD MAP TO VOLUMES 1 TO 3**

Volume 1: Main Report

Describes the TA Process, consultation arrangements, the main outputs and provides recommendations on the way forward.

Appendix A: The Draft Guidelines on Benefit Sharing (in the form of a draft Decree)

Appendix B: Work Plan to Pilot Test the Guidelines on the A'Vuong Hydropower Project

Volume 2: Appendix of TA Reports and Workshops

A compilation of selected sections from the TA reports (i.e. the Inception Report and two Interim Reports), minutes and presentations from the TA Workshops

Appendix C: The Rationale for Benefit Sharing: from the TA Inception Report

Appendix D: Summary Section from the Policy Review – from Interim Report 1

Appendix E: SWOT Analysis of Viet Nam's Policy Environment - from Interim Report 1

Appendix F: Three National Workshop Minutes and Overhead Presentations

Appendix G: Quang Nam Province Workshop Minutes on Guidelines and the Pilot Project

Appendix H: Stakeholder Analysis and Consultation Plan

Appendix I: Terms of Reference for the TA Steering Committee

Volume 3: Appendix of Rapid Appraisals and Field Consultations

Compiles field reports describing socio-economic baseline conditions on hydropower projects, local views on the draft guidelines and preferences for the pilot project design. Based on a mix of desk study, structured interviews, surveys and focus group sessions.

Appendix J: Rapid Appraisal Report on the Song-Bung 4 Project – TA Component 2

Appendix K: Rapid Appraisal Report on the Song Hinh Project. – TA Component 2

Appendix L: Rapid Appraisal Report on the A'Vuong Project – TO Component 2

Appendix M: Generalized findings across the 3 rapid appraisals

Appendix N: Field Report on the A'Vuong Hydropower Project - Input to Pilot Work Plan

Appendix J: Rapid Appraisal Report on the Song-Bung 4 Project – Component 2 of the TA

Prepared by the Institute of Energy Science and National Institute of Agricultural Planning and Projection

June 2007

Part 1: Introduction and project description

1. INTRODUCTION

The Government of Viet Nam is collaborating with the Asian Development Bank (ADB) on a Technical Assistance Project entitled Benefit Sharing Mechanism for People Adversely Affected by Power Generation Projects in Viet Nam (TA 4689-VIE). The TA aims to develop draft guidelines for long-term benefit sharing suited to conditions in Viet Nam and subsequently prepare a work plan to pilot test the draft guidelines.

The services of a sub-consultant with expertise in environment, social and rural livelihood assessment were engaged by ERAV and ADB to conduct rapid appraisals of three hydropower projects according to a standard format. The rapid appraisals look at hydropower projects at different stages of development (planning, implementation and operation) and will provide information needed to prepare the draft guidelines on benefit sharing. This first rapid appraisal report covers the 160 MW Song Bung- 4 hydropower project, currently at an advanced stage of planning and design. The two other hydropower projects are the 210 MW A'Vuong project (under construction) and the 70 MW Song Hinh hydropower project (an operating project).

2. APPROACH:

Consistent with themes of sustainable development and integrated water resource management (IWRM), a broad definition of project affected is adopted for the rapid appraisals. The assessments will consider project-affected communities upstream of the dam, in the reservoir and powerhouse areas as well as impacted riverine communities downstream. This wider definition reflects the fact that dams have large environment and social footprint in the basin they are situated. Dams transform ecosystem functions and services in ways that can adversely impact on the livelihoods strategies of people who rely heavily on ecosystem services (e.g. for food, fiber, water resource access, income etc.). What is also important is to identify the relative scale of the impact of the dam on the livelihood and welfare of each group so that benefit sharing can be apportioned accordingly.

In Part A, we start our work with desk review and synthesis of available studies on compensation, resettlement, and environment management and livelihood components of the Song Bung 4 project. This will focus on responding to key questions that will form the structure of rapid appraisal report.

The set of key questions include:

1. What is the socio-economic profile of the communities that have been/will be affected by the dam and how are their livelihoods derived?
2. What ecosystem functions and services do the livelihoods of the PAP depend on and to what degree?
3. How and to what extent are/will the lives and livelihoods of project affected communities be impacted? What impacts do the affected communities view as the most significant concerns?

4. What compensation and resettlement provisions were provided/are expected to be provided for the project affected communities? How was financing provided for compensation and resettlement and how many year did/will these last? How significant are these tensions or concerns?
5. What tensions or controversies have arisen in the project - affected communities that related to the dam or ones anticipated? How significant are these tensions or concerns?
6. Which social organizations are active or soon to be active in the project area promoting local development and sustainable resource management? Which organizations are viewed as having the most success in improving livelihoods of different groups of people (e.g., Woman's union, youth union, farmers union, NGO activities...)?
7. What is the government budget for rural development in the area? What other programs significantly support efforts of the affected communities to improve livelihoods, improve access to natural resource and sustainably manage local resources (e.g. Program 135).
8. If additional financing were made available to project impacted communities, what community-based activities would they like to see funded or strengthened, and what organizations would they prefer involved in delivery of additional support? What approaches would they like that are different than at present?

This report provides information related to socio-economic and environmental profiles of project-affected communities in the reservoir, down/upstream of the dam, and in the project construction land area responding to 8 mentioned above key questions.

3. GENERAL DISCRPTION OF SONG BUNG 4 HYDROPOWER PROJECT:

The Song Bung 4 Hydropower Project is to be built on Bung River, a tributary of Vu Gia River, in Zuoih and Ta Bhing communes of Nam Giang District, Quang Nam Province, in Central Vietnam. The key features of the Project include a dam, an underground water conveyance system and a surface power station. The Song Bung 4 Dam, located on Bung River some 3 km upstream of the confluence with A Vuong River, will create a reservoir with an area of some 15.8 km² at the Full Supply Level (FSL) of +222.5 m, reducing to some 7.8 km² at the Minimum Operating Level (MOL) of +195 m.

Water from the Song Bung 4 Reservoir will be diverted, via a headrace tunnel and an underground penstock, to a power station located on Bung River some 5 km downstream of the dam. The difference in elevation between the reservoir and the power station is some 125 m at the FSL. From the power station the water is conveyed back to Bung River via a short tailrace canal.

The total estimated cost of Song Bung 4 Hydropower Project is some 250 million USD, including taxes, contingencies and finance charges. Preliminary construction (access roads, etc.) is scheduled to start in January 2008, and main construction work in early 2009, with commissioning during the second half of 2012. It is estimated a peak work force of some 2,000 people will be employed during construction.

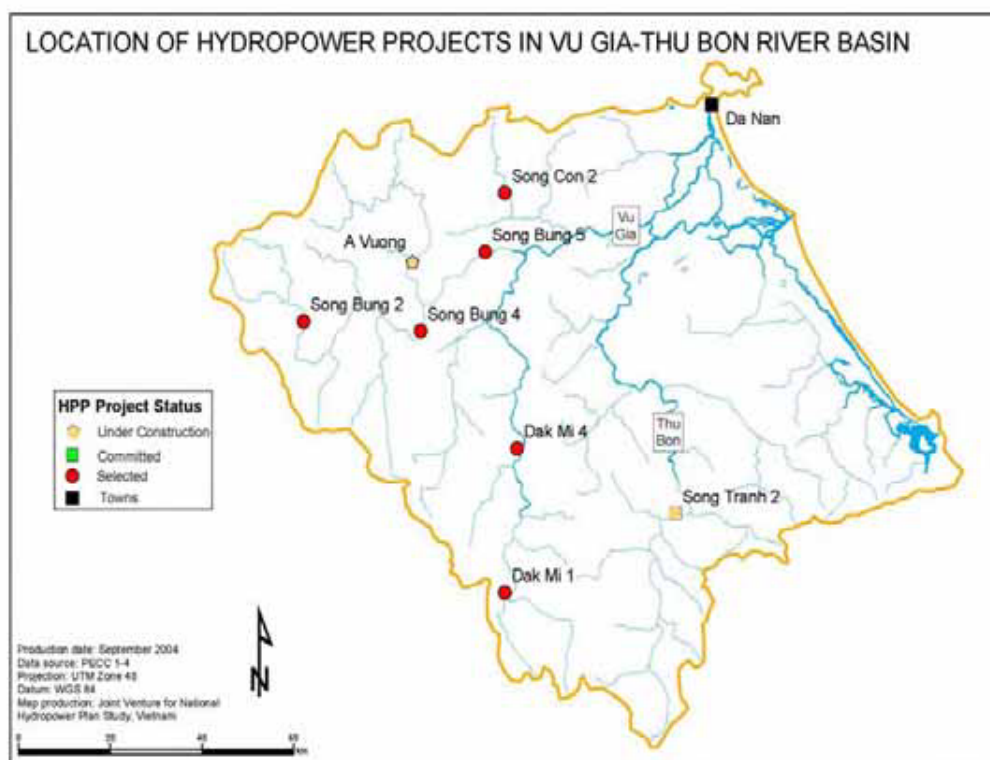
The main features and components of Song Bung 4 Hydropower Project are summarized in Table 1 below:

Table 1: Main Features and Components of Song Bung 4 Hydropower Project

	Main Features	Unit	Quantity	Main Components	Unit	Qty/type
1	Catchment Area	km ²	1,477	Dam Type	-	RCC
2	Mean Annual Flow	m ³ /s	71	Dam Height	M	110
3	Full Supply Level, FSL	m.a.s.l	222.5	Crest Length	M	370
4	Reservoir Area at FSL	km ²	15.8	Crest Level	m.a.s.l	227.5
5	Minimum Operating Level, MOL	m.a.s.l	195	Spillway Gates	Nos	6
6	Reservoir Area at MOL	km ²	7.8	Tunnel, Length	M	3,050
7	Reservoir Regulation	m	27.5	Tunnel Diameter	M	6.8
8	Reservoir Total Storage	Mm ³	493.3	Penstock, Length	M	243
9	Reservoir Active Storage	Mm ³	320.7	Penstock, Diameter	M	5.2
10	Spillway Design Flood	m ³ /s	20,000			
11	Maximum Tail Water Level	m.a.s.l	125			
12	Normal Tail Water Level	m.a.s.l	96.5			
13	Design Head	m	104.9			
14	Total Turbine Design Discharge	m ³ /s	172.7			
15	Installed Capacity	MW	156			
16	Annual Average Energy Potential	GWh	538			

(Source: TA 4625-VIE: Resettlement and Ethnic Minority Development Plan)

Figure 1: Location of Current and Proposed Hydropower Projects in Vu Gia - Thu Bon Basin



Part 2: Study Result of Appraisal

This section presents the study result for the socio-economic profile and livelihood components of Project Affected Communities and other adverse impacts caused by Song Bung 4 hydropower project. This is related to 8 key questions required by TA Project. It is based upon the synthesis of assembled available studies on Song Bung 4 hydropower project.

1. SCALE OF IMPACT OF SONG BUNG 4 HYDROPOWER PROJECT:

The Song Bung 4 Hydropower Project will produce electricity to cover the increasing demand in Central Vietnam, and sustain the economic growth in the region, by utilizing the head created by the dam and the water conveyance system. To accomplish this certain infrastructure facilities will be constructed as follows:

- A dam on Bung River to create the reservoir.
- Structures to divert the water from the reservoir to the power station.
- A power station with the necessary facilities to generate electricity.
- A transmission line to connect the power station with the national grid.
- Road works to connect the project site and resettlement areas to the national road system.
- Auxiliary areas to enable construction and operation of the Project.

Song Bung 4 hydropower project will cause great adverse impact of socio-economic and environmental aspects to the project area. The project will affect two districts of Nam Giang and Dai Loc of Quang Nam province with 121 villages and approximately 3.600 households. In which:

- Reservoir flooding (directly affected): 3 communes of Zuoih, Ta Bhing and và Cha Val, with 7 villages, 279 households (including 21 households of the village receiving resettled people), in which 214 households will be resettled.
- Project construction land: 3 communes of Ta Bhing, Ca Dy and Thach My with 16 villages and 72 households. These people are expected to be impacted on their land and livelihoods only and not to be displaced.
- Construction work camps will affect two villages (with 117 households). These people will be impacted on the social and cultural aspects
- In the downstream area there are a total of 57 villages of Thach My townlet, Dai Son commune and other 10 communes of Dai Loc district with an amount of 1810 households who will be impacted by hydrological changes. This changes will impact to fishery activities and other social aspects.
- In the upstream area there are 32 villages with a total of 1,627 households. These will also be impacted on their fish catch.

Table 2: Summary of Impacted Persons (AP villages, households and persons), Song Bung 4 Hydropower Project (2006 data)

Project Component, Area of Project Impacts	No. of villages	No. of households (HHs)		Physically relocating (houses)		Land/Livelihood impacts			fisheries impacts			social and/or cultural impacts	
		total	impacted	HH	Persons ⁱⁱ	HH	HH/SAP ⁱⁱⁱ	Pers./SAP ⁱⁱⁱ	HH	HH/SAP	Persons	HH	persons
1. Reservoir Inundation													
1.1: Zuoih Commune													
- relocating villages	4	206	206	211	1,161	211	206	1,133	206	206	1,133	206	1,133
- 1 host village	1	21	21	0	0	5			0			21	116
1.2: Ta Bhing Commune													
- Vinh village	2	117	(52) ^{iv}	3	17	52			32	32	176		
1. Sub-total	7		279	214	1,178	268	206	1,133	238	238	1,309	227	1,249
2. Project Construction Lands													
- construction sites, camp areas	(2) ^{iv}		(31) ^{iv}			31							
- Highway 14D	1		1			1							
- Transmission Line (permanent)	15		40			40							
2. Sub-total	16		72			72							
3. Project Construction Phase (Vinh)^v													
(2) ^{iv}	(2) ^{iv}	117	117									117	649
3. Sub-total			117									117	
4. Down/Upstream Areas													
- Pa Dau 2, Thanh My Commune	1	34	34						34	34		34	
- Dai Son Commune	8	679	98			30 ^{vi}			98	98			
- 10 other Dai Loc Communes ^{vii}	48	25,000	1,678						1,678				
- 6 Upstream Communes ^{vii}	32	1,627	1,412						1,412				
4. Sub-total	89		3,222			40			3,222	132		34	
TOTAL APs	122		3,609	214	1,178	380	206	1,133	3,460	not yet	not yet	378	not yet
Co.Tu, Ve	46			209	1,150	325	206		1,688	272		378	
Kinh	66			5	28	55	0		1,776	98		0	

i Social or Community Impacts are the social ramifications of (either) relocation, serious livelihood loss and/or loss of natural resource which are an integral part of that community.

ii data on the number of persons is either from (a) surveys, or calculated from number of households surveyed, assuming 5.5 persons per households. Thus, it is approximate only.

iii SAP = Severely Impacted Persons. Those for whom mitigation will definitely require replacement and livelihood restoration and/or development.

iv () indicates that this number is not included in the totals, as there is an overlap in two Ta Bhing villages, for HH which may be impacted by both (a) construction phase social impacts, (b) Project Land acquisition, and (c) Project Construction Phase – the 117 HH includes all HHs in the 2 relevant villages.

v Project Construction Phase impacts are impacts due to the large non-EM workforce and followers in/around construction and camp sites, on the rural, ethnic villagers.

vi This is the case where some riverside crop land may be eroded and thus lost.

vii Impact on fisheries in the downstream area is still to be identified through a post Project Commissioning study.

2.1.1

FIGURE 2: LOCATION OF RESERVOIR ZONE AND IMPACTED DOWN AND UPSTREAM ZONES OF SONG BUNG 4 HYDROPOWER PROJECT



2. SOCIO-ECONOMIC PROFILES OF PROJECT AFFECTED COMMUNITIES:

In February and March of 2006, a team of national consultants from NIAPP, assisted by specialists from FIPI and IFE, plus key staff from the Nam Giang District Agriculture and Forestry staff, conducted a socio-economic baseline survey.

2.1. Reservoir zone:

According to the study result of PECC 3 and PPTA, Song Bung 4 reservoir will inundate four villages of six villages in Zuoih communes and some upland fields of Vinh village in Ta Bhing Commune, one of the night villages in Ta Bhing of Nam Giang district.

2.1.1. Population and ethnic composition:

Up to the point of March 2006, the total population in Zuoih Commune was 1,460 persons living in 307 households. Of which, 299 households are the Co Tu people, 4 households are Kinh and another four mixed Kinh and Co Tu. The average household size in the four directly affected villagers is 4.7 persons

2.1.2. History and traditional culture of Co Tu people:

Co Tu people in Zuoih commune are native people who have been living here for many generations. However, village locations have been changed regularly due to bad harvests, epidemic diseases among

people or cattle, lack of good cultivation land, village fire and war incidents. The population living together as a village has always been rather small and based on kinship. Village is a dominant unit and run by headman and patriarch. People have rarely had any contacts outside the restricted geographical area and their own ethnic minority group. The social relations are governed by their common customs and rules.

Co Tu are patrilineal and patrilocal, meaning that descent of children follows father's lineage and name, and that wife moves to live in husband's family and village. Only men can own and inherit property in the patrilineal Co Tu system. Wife moves to husband's family and owns only the traditional woven textiles she has to bring with her to her new home.

According to Co Tu people's worldview, in the mid-world everything in the nature has a spirit, and the humans have to make offerings to these spirits in order to live in harmony with them. Spirit of rice, spirit of water, spirit of thunder, spirit of hunting, and souls of the dead are the most important spirits to be respected. Thus, many calendar traditions, offerings relating to their lives, and livelihoods are kept alive.

Co Tu village structure has a basic model of a concentrated village with either Guol house in the middle and other houses around it in an ellipse, or Guol house on the border of the village and residential houses around it along a main "road". The community house, called "Guol" house is the heart of the cultural and social life in a Co Tu village. Guol house is the symbol of the village, its spirit and strength. Therefore all important spiritual community items, like a spiritual gong (a special kind of metal drum), spiritual drum, spiritual wine jar, buffalo's horn after buffalo-stabbing festival, etc are preserved there.

Regarding gender division of labor in livelihood activities: Both men and women are involved in the subsistence economy consisting of different activities connected to agriculture, forestry, fishery and livestock breeding. There is a division of the tasks between men and women, which makes the workload of women both time-wise and in responsibility heavier than that of men. In contrast, men have to do heavier works.

In the customary society men, both in the family and in the village, execute leadership and decision-making. In the political leadership structure living side by side with the traditional one, the only position of some influence a woman can attain is through involvement in the Women's Union. However, WU appears weak both at village, commune and district level, and the women involved in this organization have very poor comprehension of any opportunities to improve the socio-economic conditions of women.

2.1.3. Healthcare situation:

In Zuoih Commune, there is a center of healthcare (CHC) in Pa Rum B village serving all the six villages in the commune. The CHC has capacity for preventive health care and for treating the most common diseases like upper respiratory infections, diarrhea and itching skin. Its capacity to treat serious cases is however very limited due to lack of equipment and medication. Despite restricted resources, the CHC appears to be rather successful in implemented family planning, child vaccination program and female health care.

The most common health problems in Zuoih appear to be respiratory infections during the dry season, including flu, bronchitis and pneumonia, and digestive diseases. Another health problem is diarrhea, goiter in children, tuberculosis and gynecological diseases in grown up people.

Today birth control is practiced by 80% of the couples and consequently many women have only 2-3 children. According to Zuoih CHC, coil is the most common preventive method. Child malnutrition rates are very high; in Zuoih Commune among approx 47% and in Nam Giang District 34% of the children. All children are vaccinated within the national child immunization program. Children under five years also receive free extra calcium and vitamin B.

2.1.4. Education situation:

There is a village school in each village in Zuoih Commune with grades 1-2, except in Cong Don with grades 1-6. The commune school with grades 1-9 is located in Pa Rum B. Almost all children continue at the commune school after grade 2 in the home village. School attendance of boys and girls is at the same level.

There are a few children at secondary and upper secondary level studying outside the Zuoih Commune. The best students from the commune may be chosen to attend basic secondary school (grades 6-9) at the government funded district secondary school in Thanh My town. The best ethnic minority students from this school might then be further given an opportunity to attend the government funded upper secondary boarding school for ethnic minority students in Hoi An. Apart from this possibility for very few, parents have to finance their children's studies at the district upper secondary school with grades 10-12 in Thanh My, which very few can afford.

Education level among the villagers in the four directly-affected villages is low. According to the survey result, of total household headman, illiterate people account for 27%, elementary level education people account for 52%, secondary level education people account for 18%, upper secondary people account for 3%.

2.1.5. Water supply and sanitation

Most households use stream water, which is led to villages through pipes using self-flow system. Household toilets are dug in the ground at a small distance from the houses or people release themselves in the nature.

2.1.6. Access to electrical services:

Up to the point of March 2006, Zuoih commune has not yet connected to the national electricity network. Under the resettlement program, Electricity will be provided to each resettlement site, and to each resettled house. Following works are proposed to be provided:

- Provision of a 22 Kv transmission line to each resettled village
- The installation of step-down transformer with accessories and safety features
- Provision of a 0.4 Kv network through the housing area and
- Individual house and public building connection with meters, wiring and provision of fluorescent light fixtures and power points consistent with the size of house/household.

2.1.7. Poverty and food security situation:

According to the criteria of poverty line applied since 2005, the poverty rate was 72% in Zuoih, 50% in Ta Bhing and 60% in Cha Val while this figure of the entire Nam Giang district is 53%. Results from the household survey show that nearly 10% of households in Pa Rum B did not have enough food for the year and over 60% did not have rice supplies to last the whole year and relied on subsidiary crops such as cassava for their staple diet. In Pa Rum A, 19% of households do not have enough food for the year, and the situation lasts for most months of the year. In Pa Dhi 40% of households have rice to eat the whole year. In Thon 2 only 12% of the households do not have enough rice for the whole year.

2.1.8. Livelihood system:

Co Tu in Zuoih live in a traditional subsistence economy based on upland swidden cultivation and utilization of resources in forest and water, added with animal breeding. Forest actually constitutes the very basis for Co Tu life: not only is cultivation land cleared in the upland forest, but forest also provides almost all the everyday necessities: house construction material, firewood, food in the form of vegetables, fruit, mushrooms, leaves and roots, honey, wild animals, insects and birds. Income is

derived from selling forest products like wild animals, bamboo shoots and wine made of Ta Vac palm and fish as well.

- **Crop farming:** Co Tu cropping systems is based mainly on swidden upland cultivation for the production of rice and annual crops such as maize, beans, cassava, sesame, plus a range of vegetables. Upland rice is the most important staple crop. Wet rice cultivation has been introduced to Zuoih villages recently. Only a few households in each village do wet rice cultivation as production is complicated by the topography, which has resulted in small and scattered field locations near the base of hills, and near creeks and springs.

Agricultural products are almost entirely consumed by the households themselves: selling appears only locally and in a small scale. The average annual food production per capita (in equivalent to paddy) is 200–230 kg. Approximately 85% of the major upland products is used for daily food (household consumption), 10% (mainly cassava and also maize) to feed pigs, and 5% for other purposes like wine making, traditional and calendar festivities.

- **Livestock husbandry:** Animal production in Zuoih villages consists of raising cattle and buffalo, and of keeping pigs, chicken and dogs. On average, each household raise 1-2 cattle or buffaloes, 2 - 3 pigs, 20-30 birds, 2-3 dogs. The main purpose for animal keeping is to generate cash income. Another purpose for keeping valuable large ruminants is for savings. In all the four resettlement villages at least 70% of total pig output is for sale in the market and the remainder is used for important events like village festivals, weddings, funerals or as gifts for relatives.

Generally, farmers with livestock have not paid attention to having animal shelters. In a majority of households, pigs and poultry stay together with humans, leading to poor hygienic conditions. Due to poor sanitation, the health and growth of animals is affected.

- **Forest resource utilization:** The forests provide a wide range of products, which are used by the villagers - for construction, for handicrafts and implements, for food and for sale (cash income). Both men and women collect forest products; although in different ways:

+ Men cut trees for house construction and hunt wildlife, both for food and sale; and

+ Women gather fruit, vegetables, mushrooms and leaves mainly for household food and medicine, and bamboo shoots for sale, firewood.

- **Fisheries** A wide range of fish and other aquatic products are caught or collected from the Bung River, its tributaries and in mountain streams as well as from fish ponds. Fish and other aquatic products are a main food source in the four resettlement villages.

Fishing gear is diversified and includes fishing net, cast net, hand net, landing net and gill net, trap, keep net, toxic trees, even hands, etc. Most households have a hand net and view this as a major asset. Men usually catch fish in the river, while women collect mollusks, amphibians and fish in small streams. The household survey carried out in February 2006 showed that the annual catch per households varies from 152 kg in Pa Rum A to 473 kg in Thon 2 with an average of 268 kg/household. The total annual fish catch in the four villages is 55,159 kg. Most of the catch is used for home consumption (73%), the remaining (27%) for sale.

- **Aquaculture:** Fish farming is carried out by at least half of the households in all four villages. In total, 58% of 204 households have a fish pond. The baseline survey showed that the 119 households harvest 12,957 kg fish per year. The average yield is 11.2 tons/ha, which varies from 7.4 tons/ha in Parum B to 15.6 tons/ha in Thon 2.

- **Non-farm activities:** Income from other sources than agriculture, livestock breeding, forestry and fishery consists mainly of workforce labor and government salaries, particularly in Pa Dhi (9.6% and 13.0% of total household income, respectively). The trade sector is undeveloped and mainly managed by in-migrated Kinh households. Other off-farm activities are Tho Cam weaving, rice mills, gold mining, and wine making that generate a significant cash income for the local people.

- Importance of livelihood activities raising cash income:

This chapter presents the income generated from various sources and the relative importance of these sources based on the household survey carried out in February 2006. It should be noted here that income refers only to cash income while the value of products consumed and used by the household, shared and bartered between households is not being accounted for here.

Table 3: Percentage of Income from Different Products of the Total Cash Income

Villages	Farming	Husbandry	Forest product	Fish/Aqua	Off-farm	Total
Pa Dhi	11.40%	10.20%	15.40%	7.80%	55.20%	100.00%
Pa Rum A	6.60%	10.30%	34.50%	3.60%	45.00%	100.00%
Pa Rum B	12.50%	19.,70%	19.60%	11.10%	37.10%	100.00%
Thon 2	4.50%	14.50%	34.10%	17.80%	29.10%	100.00%

2.1.1.1 2.2. Upstream and Downstream zone:

In terms of social and livelihood impact, the downstream and upstream areas can be divided into four main zones:

- **Downstream Zone 1:** between SB4 dam site and close to the confluence with Song Cai. Pa Dau 2 is the only village here, not actually on the river, but situated 1 to 2 kilometers from the river;
- **Downstream Zone 2:** around the confluence of Song Bung with Song Cai, after which the river is called the Vu Gia River: Dai Son Commune, with 8 villages, is located here, with 2 villages actually on the Song Bung and the other 6 on the Vu Gia; and
- **Downstream Zone 3:** further downstream from the confluence up until the Song Quang Hue, a short channel connecting the Vu Gia to the Thu Bon. There are 38 villages, in nine communes, that may experience some fisheries impacts due to the SB4 project.
- **Upstream Zone:** all those villages in the watershed of the Song Bung reservoir residing on and/or catching migratory fish from tributaries of the Song Bung 4 Reservoir.

2.2.1. Population and ethnic composition:

- **Downstream Zone 1 -Pa Dau 2 village:**

The village of Pa Dau 2 is administratively part of Thanh My town Commune. It has a total population of 157 persons in 39 households. All come from the Co Tu ethnic minority group.

- **Downstream Zone 2:**

In Dai Son commune, there are 679 households living in 8 villages. Of these households, 98 (or 14%) are fishing in Song Bung and/or the Vu Gia rivers. All are of the Kinh ethnic group.

? Downstream Zone 3: 10 communes in Dai Loc district, along Vu Gia River

There are a total number of 100 villages in these 10 communes namely Dai Hong, Dai Lanh, Dai Dong, Dai Phong, Dai Quang, Dai Cuong, Dai Nghia, Dai Hoa and Ai Nghia, but of these, there are 10,868 households in these 48 fisher villages. All of the households in Dai Loc District are of the Kinh ethnic group.

- **Upstream zone: 6 communes in Nam Giang district:**

Of the 64 villages in Nam Giang District, a total of 32 (or 50%) are in the watershed of the Song Bung 4 reservoir namely Cha Val, Dak Pring, Dak Pre, Zuoih, La De, and La E. The upstream villages are defined as those villages, which catch migratory fish in streams (mainstream and tributaries) of the

Song Bung 4 reservoir. Total population of 32 villages is 1627 persons, of which 1412 people will be impacted. Of total population, 1405 persons are the Co Tu ethnic group, 177 persons are the Ve ethnic groups, and the remaining 45 persons are the Ta Rieng ethnic group.

2.2.2. History and traditional culture:

- **Downstream Zone 1 -Pa Dau 2 village:**

Pa Dau 2 villagers previously lived close to the A Vuong River (upstream of their current location), but in 1968 they moved to their present residential area close to (1 to 3 km) the Song Bung River. In 1986, 30 persons died of an epidemic disease with high fever and headache, according to the people it might have been malaria, and they moved to Pa Dau 1 Village in Thanh My town. Villagers returned in 2002 to the present location.

As people in Pa Dau 2 village belong to the Co Tu ethnic group, their traditional custom and culture are similar to those of the Co Tu people in reservoir area.

- **Downstream Zone 2, 3 and upstream Zone:**

No social assessment has been carried out for the 56 villages in the Downstream Zone 2 and 3. There are no ethnic minority households in these villages. Affected people in upstream are mainly the Co Tu people who have similar traditional and culture to the Co Tu in reservoir zone.

2.2.3. Healthcare and education services:

- **Downstream Zone 1 -Pa Dau 2 village:**

There is a school with grades 1-5 in Pa Dau 2 village. For higher grades, the children have to study in Thanh My town. Villagers wish to support their children's education, but not all families can afford it: (school cost is 500,000VND/child/year). According to the villagers, it is not subsidized because the village is located within the district town area.

There is a Village Health Worker in the village, but when people get sick they have to go to Thanh My town Health Care Center. They also have to bring their children there to get vaccinated. Women give birth at home, and they only go to the clinic in Thanh My town if the delivery is expected to be a difficult one.

- **Downstream Zone 2, 3 and upstream Zone:** No social assessment has been carried out in phase 1 of PPTA.

2.2.4. Drinking water supply and sanitation

- **Downstream Zone 1 -Pa Dau 2 village:** There is a water tank in each of the three hamlets for daily household water consumption provided by the District Government. This water comes through a pipeline from the Da Dang stream and is available all year. The Bung River is mainly utilized for bathing. Household toilets are dug in the ground at a small distance from the houses or people release themselves in the nature.

- **Downstream Zone 2, 3:** The majority of households obtain their water for domestic uses from wells. Only three percent of households in Dai Lanh get water from the stream.

- **Upstream Zone:** Most households use stream water, which is led to villages through pipes using self-flow system. Household toilets are dug in the ground at a small distance from the houses or people release themselves in the nature.

2.2.5. Access to electrical services

- All project affected communes in downstream zone 1 and zone 2 and 3 district have already accessed to the national electrical grid. Electrification ratio is about 70-80%. The quality of electrical services is sound good.
- All project affected communes in upstream zone have not yet electrified. The presence of the project will lead to improvement in electricity access of local people since national electrical grid connected to the resettlement villages and project land construction site will facilitate those communes to faster and easier electrical access and electrification.

2.2.6. Poverty and food security situation:

- **Downstream Zone 1 -Pa Dau 2 village:** The poverty rate of the entire Nam Giang district is 53% compared to 58% of Pa Dau 2. Almost 80% of the households do not produce enough rice for all the year and have to mix rice with cassava and buy rice part of the year.
- **Downstream Zone 2 and 3:** The poverty rate of communes in downstream zone 2, 3 is about 27%. Since rice is only grown in four out of the eight villages of Dai Son commune, the production is far from sufficient to meet the need. 85% of the households buy rice every month. However, few households have to mix rice with other because they plant cash crops which are better suited to their land, i.e. maize, peanut and pineapple to sell and purchase rice.
- **Upstream Zone:** 6 communes in upstream zone belong to the most remote and difficulty area of Nam Giang district, the poverty stands at high rate, from 75-80%. Almost 80-90% of the households do not produce enough rice for all the year and have to mix rice with cassava and buy rice part of the year..

2.2.7. Livelihood system:

- **Downstream Zone 1 -Pa Dau 2 village:**

- Like Co Tu people in reservoir zone, subsistence strategies of the ethnic minority Co Tu people here are based on the multiple utilization of available natural land, forest and water resources. Agricultural and forest utilization play a dominant role in livelihood system because a major amount of their income is derived from farming and forest product. Production activities mainly are swidden cultivation with upland rice, maize; livestock raising: buffalo, cattle and poultry, forest product collection and hunting. Besides, fishery and aquaculture are of important livelihoods component providing a main source of their food and protein and raising cash income.

- According to the survey result of PPTA, the total fish catch of all households in Pa Dau 2 Village was around 4,200 kg in 2005. The average amount of fish caught and eaten in the fishing households per household per year is 244 kg in Hamlet 3, 85 kg in Hamlet 2 and 74 kg in Hamlet 1. The main cash income in the village comes from selling beans and maize to mobile Kinh traders. The average yearly income from this selling is 1MVND/household. Women also sell bananas, pigs and chicken to the same mobile traders who arrive daily.

- Importance of livelihood activities raising cash income: In comparison to the cash income source of people living in the reservoir zone, the source and level of cash income in Pa Dau 2 village is similar.

- **Downstream Zone 2 - Dai Son commune:**

Livelihood activities of people are farming, livestock raising, forest utilization and fisheries.

- **Crop farming:** The area of Dai Son Commune is not predominantly a rice growing area. Only 227 (or 33%) of all households grow wet rice on 21.38 ha with a total production of 77.3 tons. All rice production takes place in the four villages of Hoi Khach Dong, Hoi Khach Tai, Tan Doi and Bai Qua

where there are small lowland areas suited for paddy rice farming. Other five households in Hoi Khach Dong grow upland rice on 0.47 ha.

The main products in all villages are maize, peanut and pine apple. Maize and peanut are usually grown on the same field, during different season (in rotation). Maize was grown on 30.92 ha and yielded 7,125 kg in 2005. Peanut was grown on 31.23 ha and yielded 9,225 kg. Pine apple was grown on 464.54 ha with a production of 3,772 tons.

- **Livestock raising** is relatively developed in Dai Son commune with main livestock of buffaloes, cattle, pig and poultry. There are a total of 737 buffaloes, 637 cattle, 875 pigs and 4366 poultry. Buffaloes and cattle are mainly used as draught animals and as a bank.

- **Forest utilization:** forest utilization in Dai Son mainly are firewood, rattan and timber collection. Since forests are to a large extent degraded in the Dai Son Commune, there are not a lot of people doing forest product collection, mainly in 3 hamlets of Thac Can, Dao Go and Dong Cham. In these villages, the total annual production consist of 1,615 m³ of firewood, 3829 rattan fiber, and about 156 m³ of timber. .

- **Fisheries:** Six out of eight villages in Dai Son Commune have villagers fishing in Song Bung and/or Vu Gia. The number of households fishing in these rivers is 98 (or 14%) of the totally 679 households in the commune. The total annual catch is 26,180 kg or in average 267 kg per household.

- **Importance of livelihood activities raising cash income:** Cash income of people in Dai Son commune is mainly raised from farming, livestock husbandry, fisheries and off-farm activities. It is estimated that of total cash income, income from farming accounts for 30-35%, livestock husbandry accounts for 20 - 25%, fisheries accounts for 10 - 15%, forest product accounts for 5-7% and the remainder comes from off-farm activities.

- **Downstream Zone 3** - 10 communes in Dai Loc district

Some areas along the Vu Gia and other rivers benefit from regular flooding. The nutrient-rich river water fertilizes these lowland areas. The total area benefiting from Vu Gia flooding in Dai Loc District is 1,528 ha. There are about 9,000 people cultivating on these land. Livelihood activities of people are crop farming, livestock raising, and fisheries.

Besides, there are 30 households living in river boats on Vu Gia. They are not thought to be significantly impacted by the additional fluctuations as these will be very gradual and at maximum add 60 cm to the current water level.

- **Crop farming:** Wet rice, maize, peanut, beans, cotton tree, cigarettes and melon are predominant crops in the area. Of which, wet rice and maize are two major crops providing food for the local people. Other crops are viewed as cash income generation sources. .

- **Livestock raising** is relatively developed with main livestock of buffaloes, cattle, pig and poultry. There are a total of 1243 buffaloes, 17355 cattle, 58265 pigs, 265000 chickens and 3000 ducks.

- **Fisheries:** it is estimated that in the 9 communes of Dai Loc District (Dai Son Commune excluded) there are 1,437 households fishing for subsistence and 241 household fishing for commercial purpose. The total annual catch obtained is 584 tons with 368 tons and 215 tons for two groups, respectively. Fishes and other aquatic product is the major food of the local people. On average, fish typically is consumed with 1 to 2 meals per day.

- **Importance of livelihood activities raising cash income:** Cash income of local households is mainly generated from farming, livestock husbandry, fisheries and off-farm activities. It is estimated that of total cash income, farming accounts for 35-40%, livestock husbandry accounts for 25 - 30%, fisheries accounts for 10 - 15%, the remainder 15-30% comes from off-farm activities.

- **Upstream Zone** - 6 communes in Nam Giang district:

Like Co Tu people in reservoir zone, subsistence strategies of the ethnic minority Co Tu people here are based on the multiple utilization of available natural land, forest and water resources

- **Crop farming:** Agricultural and forest utilization play a dominant role in livelihood system because a major amount of their income is derived from farming and forest product. Production activities mainly are swidden cultivation with upland rice, maize, beans and vegetables. According to the survey result of PPTA, total area of agricultural land is 1470 ha, in which upland crop land is 1179 ha, wet rice land is 128 ha and the remaining of 172 ha is other used land.

- **Livestock raising:** Livestock raising is to generate income. In all communes, at least 70% of total pig output is for sale in the market and the remainder is used for important events like village festivals, weddings, and funerals or as gifts for relatives. There are a total of 2399 cows, 344 buffaloes, 3836 pigs, 1612 goats, 1725 dogs and 11124 chickens.

- **Fisheries:** fishery and aquaculture are of important livelihoods component providing a main source of their foodstuff and protein and raising cash income for the local people. According to the survey result, the total number of fishers in the 31 villages of the upstream area is 1,412 of which 1,107 are subsistence fishers and 105 fishing for commercial purpose. On average, fish typically is consumed with 3 to 6 meals per week.

- **Forest utilization:** Forest actually constitutes the very basis for Co Tu life in the upstream zone: not only is cultivation land cleared in the upland forest, but forest also provides almost all the everyday necessities: house construction material, firewood, food in the form of vegetables, fruit, mushrooms, honey, wild animals, insects and birds. Income derived from selling forest products take a significant portion in total their cash income. According to the survey result of PPTA in La Ee, total annual production consist of 150 little of honey, 100 m³ of firewood, 25750 rattan fiber, and about 490 m³ of timber. Total value is estimated at 1300 million (VND).

- **Importance of livelihood activities raising cash income:** In comparison to the cash income source of people living in the reservoir zone, the source and level of cash income in upstream zone villages is approximately similar. It is estimated that of total cash income, income from farming accounts for 10-15%, livestock husbandry accounts for 20 - 25%, fisheries accounts for 5 - 10%, forest product accounts for 30-35%, the remainder 25-35% comes from off-farm activities.

2.3. Project land:

Project lands will affect areas of 15 villages in the three communes of Ta Bhing, Ca Dy and Thanh My town in Nam Giang District. There will be 31 households of these villages impacted on their land and livelihood.

2.3.1. Population and ethnicity:

Based on the survey result of PPTA in February and March 2006, total population of those villages is 4355 persons in 879 households. Most of the population is Co Tu ethnic minority people, except in Thanh My 1 where all the households consist of majority Kinh people. Many of Kinh people there are government officials, teachers, health care workers and traders. According to the village survey, 96% of the households in Ta Bhing villages are Co Tu, 97% in the affected villages in Ca Dy, and 77% in Pa Dau village in Thanh My town.

2.3.2. History and traditional customs and cultures of the Co Tu:

Co Tu people there are native people who have been living here for many generations. However, village locations have been changed regularly. Their traditional customs and culture are similar to those of the Co Tu in the reservoir zone.

2.3.3. Healthcare situation

There is a Village Health Worker in all the villages without a Health Center. Every commune has a Commune Health Center, with a physician, nurse and midwife, but doctors are available only at the district hospital. Child vaccination program is implemented in all villages. The most common health problems are respiratory infections and stomach diseases, especially diarrhea. Men drink a lot of

home-made alcohol leading to stomach problems. Most Co Tu women in Ta Bhing and Ca Dy still give birth at home. Poor households have right to free health care according to the national Program 139, but they still have to pay the transportation costs themselves. Poor families often abstain from seeking health care due to the costs involved, and try to treat the sick with traditional medicines.

2.3.4. Education situation

All villages or clusters of villages have a school with grades 1-5. Education above grade 5 is available for Ta Bhing and Ca Dy children in the inter-communal school in Ca Dy. Upper secondary education is available only in the district town.

Education level of the adult population is low. More than half of the adult population (53%) has only elementary level education, and totally 81% only grade 5 level education. Pa Dau village in Thanh My town makes a remarkable exception with 57% of the adult population with grade 9 level education or higher. In Ta Bhing, 15% of the adult population has this level of education. In the Kinh dominated Thanh My 1 the figure is 18%.

2.3.5. Drinking water supply and sanitation

In Ta Bhing villages, most households use stream water, which is led to villages through pipes using self-flow system. Household toilets are dug in the ground at a small distance from the houses or people release themselves in the nature.

2.3.6. Access to electrical service

All the three commune of Ta Bhing, Ca Dy and Thach My are electrified. Power is mainly supplied from a 35kV transmission line. The total household electrification rate is approximately 33%, but electrification is unevenly distributed between the villages. It is anticipated that the presence of Song Bung 4 hydropower project will lead to improvement in electricity access and electrical services. s

2.3.7. Poverty situation and food security:

According to the government poverty line applied in 2005, the poverty rate in Ta Bhing commune is 50%, in Ca Dy is 45,4% and in Thach My is 31,5%.

Food security situation is most stable in Thanh My town. Here only a few households suffer from severe food insufficiency (more than 6 months/year). Most of the households have enough food throughout the year. The food security situation is better in Ca Dy than in Ta Bhing Commune. Household survey showed that almost 42% households in Ta Bhing is insufficient food for 3 - months, this figure in Ca Dy commune is 30% and in Thach My town is 11%

2.3.8. Livelihood components:

In all the villages except for Pa Dau household economy is based on agriculture, forestry and fishery. 96% of all the households in all the villages rely on upland cultivation, 34% also have wet rice fields. Cattle are kept in all the villages, and is an important income earning activity for 91% of the people. Fishery is a main economic activity for very few households, but many households have fishponds for family food. Forestry is a main economic activity for 25% of the households, but more significant in Ta Bhing Commune. Pa Dau Village makes an exception to the socio-economic model among the villages: Here 40% of the household heads are government employees and no household relies on forestry or fishery.

- **Crop farming:** Crop farming is based on upland cultivation in all the villages with following crops: upland rice, maize, beans and cassava. The total area utilized for upland cultivation is approximately 740 ha in Ta Bhing Commune and 240 ha in the four affected villages of Ca Dy Commune. Wet rice cultivation has been introduced to the area recently. Only a few households in each village do wet rice cultivation with small area as production is complicated by the topography and small and scattered

field locations. After maize and cassava, selling beans is important for household income. In Thon Vinh household income from beans varies between 1.5 and 6 MVND per year.

Fruit trees contribute to the diet and bring income for households. Local people cultivate and also sell fruit like banana, pineapple, loong boong, jack fruit, mango and papaya.

In general, agriculture is done manually and is of low productivity. Land quality is poor and few farmers use fertilizers. District agricultural extension resources are very limited in Nam Giang District, and poor farmers have no access to training.

No farmers in Ca Dy or Thanh My villages have a land certificate. In four of the villages in Thanh My, land certificates have been provided for wet rice land but not for any upland areas.

- **Livestock raising:**

Livestock breeding is an important income generating activity for Co Tu people. Animals are mostly kept for selling. Most households have chicken and pigs. Cows and buffaloes bring most income, 5–6 MVND/cow. In Ta Bhing Commune, FIDR, a Japanese NGO, has provided most households in Thon Vinh village with cows and organized training in livestock breeding, which has led to reducing occurrence of cattle diseases. The District Ethnic Minority Office has also provided Pa Toi villagers with cows; most households have 1-2 cows, but the most well-off ones have 7-8 cows.

- **Forest utilization:**

Utilization of forest resources is important for both food and income of the local people. Women gather fruit, vegetables, mushrooms and leaves mainly for household food and medicine, and bamboo shoots for selling. In Ta Bhing villages selling rattan is very important for household economy. Both men and women collect rattan in the forests. In Thon Vinh and Pa Toi villages, rattan is a major income source for most households. According to villagers, an average household income from selling rattan is 1 million VND per year. Selling palm leaves for hat making is also important for household income. A lot of illegal logging and hunting occurs in the forests, but it has not been possible to assess the magnitude and the involvement of the local people in these activities.

- **Fisheries and aquaculture:**

There are few families fishing and selling fish in the villages. Fishery is a main economic activity for less than 10% of the households in Ta Bhing Commune, and significant only for a few households in Ca Dy villages. Pa Toi villagers say they were fishing a lot in Bung River in the past, but with the intensified gold mining in the river, fish has reduced a lot, and today villagers go down to the river for fishing only in special occasions like for festivities. Fish is mainly caught in mountain streams and in the streams close to villages. Most villagers buy sea fish from mobile Kinh traders on motorbikes coming daily to the villages. 75% of the households in Thon Vinh Village have fishponds. In the other villages the amount of households with fishponds varies greatly from a few households to 1/3 of households. Fish is raised for family food, but also sold to other families in the same village. This selling is, however, at a very small scale.

- **Non-farm activities:**

Along the road, there are shops in every village. Kinh people run the shops, but trade is not specified as the main economic activity for any households according to the village survey. This may be due to the traders not being licensed, and therefore claiming trade to be a supplementary activity. There are no labor workers in the villages, but a few government employees in almost every village. In Pa Dau village, 40% of the household heads are government employees. In Zo Ra village a Japanese NGO started a women's traditional weaving project two years ago, but the participating women have not yet achieved any considerable income from selling their traditional weaving products.

- **Importance of livelihood activities raising cash income:** In comparison to the cash income source of people living in Pa Dau 2 village belonging to Down Zone 1, the source and level of cash income in all upstream zone villages except for Pa Dau village in Thanh My Town is similar. It is estimated that of total cash income, income from farming accounts for 10-15%, livestock husbandry accounts for 20 - 25%, fisheries accounts for 3 - 5%, forest product accounts for 30-35%, the remainder 20- 37% comes from off-farm activities.

Regarding Pa Dau village in Thanh My alone, Here 40% of the household heads who are government employees and no household relies on forestry or fishery. Therefore, their cash income is mainly government salaries, added by some income from farming and livestock husbandry.

3. WHAT ECOSYSTEMS FUNCTIONS AND SERVICES DO THE LIVELIHOODS OF THE PROJECT AFFECTED PEOPLE DEPEND ON:

Ecosystem services are defined as ecological processes that produce, directly or indirectly, goods and services from which humans benefit

3.1. Reservoir zone:

As presented in livelihoods components, subsistence strategies of the ethnic minority Co Tu people are based on the multiple utilization of available natural land, forest and water resources. Agricultural production, forest utilization and fisheries play a significant role for their subsistence. Based upon socio-economic and traditional customs and culture profiles, it is noted that, livelihoods of those people depend on following ecosystem functions and services:

- **Food production:** in subsistence strategies, crop farming, livestock raising and fisheries are the main livelihood activities. The product produced and collected include rice, maize, fishes, meat and a range of vegetables. Reservoir will inundate almost their fertile cultivable land and grazing land.

- **Water resource access:** Rivers and streams are utilized for fishing and catching other aquatic species. This is the main source providing food and protein for the local. In addition, Song Bung 4 River also provides water for agricultural production and drinking water. Reservoir formation will force them to relocate to new resettlement places that are more far from Song Bung 4 River than present places. Thus, more difficulty to access Song Bung 4 River will induce a significant decrease in livelihoods generating from Song Bung 4 River.

- **Raw material:** Forest provides almost all the everyday necessities: house construction material, firewood, food in the form of vegetables, fruit, mushrooms, honey, wild animals, insects and birds. Song Bung 4 river and its streams also provide construction materials such as sand and gravel and gold mining. However, according the study result of PPTA, almost forest to be inundated in the reservoir is bush, grass plot and some area of poor forest, thus reservoir flooding will not cause large extent impact to raw material availability of forest but only to construction material and mining (sand, gravel, gold).

- **Biodiversity:** Catching fish and other aquatic species, hunting and forest product collection generate a considerable share of local people's income and provide important food sources for local people. The output of those activities depend upon the species diversity extent of aquatic ecosystem and riverine ecosystem. The inundation will result in a loss of river habitat, which will be replaced by a lake with a large water level fluctuation. All life in the littoral zone will die because of the periodical dry up of the reservoir banks. The regulation zone will be heavily eroded, rendering a denuded, inorganic, desert-like zone of sand, gravel, and stones where nothing can grow. Inorganic erosion material will settle in the reservoir bottom and reduce the nutritional value of bottom sediments for animals dwelling at the bottom. In the first years after the regulation, fish productivity will be relatively good because of the supply of food and nutrients from the inundated terrestrial land. However, over time,

fish productivity will be markedly reduced and the potential for fish harvest will be low. Only a few fish species will succeed in adapting to a lake life. In the reservoir, the biodiversity of fish will be reduced by 30–50%. This will adversely influence to local people livelihood.

In addition, There is a rich knowledge among the Co Tu on medicinal plants, roots, bark and other medicinal items growing in nature. Ingredients for medicine are collected in the forest and along the river. Thus, reservoir flooding also impact on material availability for medicines. However, this impact viewed to be not serious because there are only 10-15% of total their current forest inundated. Survey of PPTA did not reveal any special animal and vegetation for protection though they are the spawning habitats for some aquatic species. Moreover, all plant and animal species and vegetation are common and widely distributed.

- **Traditional culture:** As for Co Tu people, traditional customs and culture play an important parts in their lives and livelihoods. In the mid-world everything in the nature has a spirit, and the humans have to make offerings to these spirits in order to live in harmony with them. Through traditional culture, their young generation is taught how to live in harmony with the nature and ensure sustainability in livelihood development. Nevertheless, people in reservoir zone will be displaced to resettlement places having similar natural conditions to the present places, thus traditional culture is expected not be adversely influenced.

3.2. Upstream zone:

Subsistence strategies of the ethnic minority Co Tu people in upstream zone are also based on the multiple utilization of available natural land, forest and water resources. Their livelihoods depend on following ecosystem functions and services: food production, aquatic biodiversity, water resource access, raw materials and traditional culture. Ecosystem functions and services viewed most impacted by the dam is aquatic biodiversity and water access:

- **Aquatic biodiversity:** Fish and other aquatic species catching generate a considerable part of local people's income and provide important food sources for them. The output of those activities depend upon the species diversity extent of aquatic ecosystem. The inundation will result in a loss of river habitat, which will be replaced by a lake with a large water level fluctuation. Moreover, dam formation will eradicate long distance migratory species from downstream to upstream and vice versa. Those changes will result in a considerable decrease in fish and other aquatic species diversity, leading to a significant decline of fish and aquatic species product harvested.

- **Water resource access:** Rivers and streams are utilized for fishing and catching other aquatic species and providing drinking water. Reservoir formation will not impact to water access of them. However, one concern raised is the risk of increased accumulation of mercury in migratory fish feeding in the reservoir area. This will cause a potential health risk for people eating these fish. The mercury content will be further studied and monitored from start of Song Bung 4 operation.

3.3. Downstream zone:

3.3.1. Downstream zone 1 - Pa Dau 2 village:

Similarity to Co Tu people in reservoir zone, livelihoods of Co Tu people in Downstream Zone 1 also depend on ecosystem functions and services as those in reservoir zone, including: food production, water access, raw material, biodiversity and traditional cultures. Ecosystem functions and services are viewed most impacted by the dam as follows:

- In DS Zone 1, the river is still steep, with rocky shores that will not erode. There is no cultivated land, gardens or domestic animal use of this section of the river. Thus, food production will not be impacted.

- The ecosystem function is viewed most impacted by the dam is fish and aquatic species diversity. Because, at present there are 34/39 households catching fishes and aquatic species for subsistence.

Dam and reservoir operation will change flow regime and water quality, decline of nutrient for fishes and aquatic species and create a barrier for fish migrant route. As a result, fish and other aquatic species will decline, in both production and biodiversity, long distance migratory fishes will be disappeared. It is estimated that, fish production harvested in this villages will reduce by 80 - 90%.

3.3.2. Downstream zone 2 and 3 - Dai Son commune and other 10 communes in Dai Loc district:

All project affected people in zone 2 and 3 are the Kinh people. Their livelihoods depend on following ecosystem functions and services: food production, aquatic biodiversity, water access and regulation, water transportation and raw materials for construction such as sand and gravel. Ecosystem functions and services are viewed most impacted by the dam as below:

- **Food production:** In zone 2 and 3, there are 1528 ha of lowland fertilized by the nutrient-rich river water. This area is cultivated land of 9,000 people, providing a significant food source for the local people. Reservoir formation will increase material settlement in the reservoir, thus water coming out of the dam will be cleaner, resulting alluvium decrease for cultivable land in the downstream. Besides, large water level fluctuation as reservoir operating will increase riverbank erosion, resulting in loss of cultivated land, grazing land and crops of the local people. Those changes will impact adversely on crop productivity and food security.

- **Aquatic biodiversity:** The regulation have a significant impact on aquatic species in downstream zone. Long distance migratory species will disappear because of the barrier effect of the dam. The large water level variation in the river between the dam and the confluence with Cai River will strongly reduce the biological productivity of the river by up to 75%. Peryphiton, bottom animals and fish will decline both in production and biodiversity up to 30% resulting a decrease of fish and aquatic production harvested. So cash income and food source of the people there will be adversely affected.

- **Water access and regulation:** Song Bung provide almost water for agricultural production and drinking water for people here. According to the survey result of PPTA, almost 80% of households take water from dug-wells for daily use. Thus during project construction phase underground water level may be declined, this may cause adverse impact to their daily lives. Moreover, large water level fluctuation in construction and operation time will increase probability of difficulties for water way transportation and construction material exploitation in the downstream and reduce the capacity to draw water from the river for crops.

3.4. Project land area:

Livelihoods of Project Affected People in project land area depend on following ecosystem functions and services: food production, water access, raw material, biodiversity and traditional cultures. Ecosystem functions and services are viewed most impacted by the dam as follows:

- **Food production:** Total agricultural land area of 15 villages within project land to be acquired is 110 ha, of which 53 ha is wet rice land, 21 ha is production forest land and 36 ha belong to other crop land. Of total affected villages, Vinh villages will lose 40% of total wet rice land, 23% of upland rice. This induce remarkable impact on their food security.

- **Biodiversity:** One of the livelihood activities of the ethnic minority people in the project land is forest utilization. Forest product collected depend on the extent of fauna and flora diversity. According to survey result of PPTA, forests utilized by the local villagers are located within the impacted areas. Construction activities and influx of construction workers will be an increased pressure on forest resource. The impact on fauna and flora include vegetation loss, potential increase in illegal logging, fuel-wood, and illegal hunting. The effect will induce an increase on probable loss of biodiversity and adverse impact on lives of local people in term of livelihood incomes and medicinal materials.

4. IMPACT OF PROJECT ON THE LIVES AND LIVELIHOODS OF PROJECT AFFECTED COMMUNITIES:

2.1.1.2 4.1. Impact of reservoir flooding on the lives and livelihoods of people in the reservoir zone:

- Flood 100% the housing area /settlements of 3 villages - Thon 2, Pa Rum B and Pa Dhi - and partially inundate (50%) 1 village - Pa Rum A. A total of 203 households who currently live in these villages will be thus impacted.
- Flood almost the social infrastructure in these 4 villages, such as community house, 4 primary and one secondary schools, one commune health center, and many gravity supplied water systems.
- Flood 194 graves in 4 these villages, all graves have to be relocated. in the worldview of the Co Tu people, good relation and respect to the dead people are of importance in their culture. Thus if relocation of graves is not organized in accordance to the Co Tu tradition and in agreement with the villagers, it will have a devastating psychological effect on their cultures.
- Flood the wet (paddy rice) fields and some fruit tree gardens of three of these villages. A total of 8.98 ha of wet rice (paddy) fields, belonging to 39 families, and producing 18,280 kg of rice per year will be lost.
- Flood some of the rotational fields of three of these villages.
- Flood some of the grazing ground currently grazed by villager cattle. It is estimated that about 50 % of current grazing grounds will be flooded.
- Flood some of the forest currently utilized by the villagers. It is estimated that 10 to 15 % of current forestry resources will be flooded.
- Flood most of the fish ponds of these three villages. A total of 110 families have generally small fish ponds that will be all flooded by the reservoir.
- Seriously impact the riverine fisheries in the Song Bung and its major tributaries, of the three villagers, and part of the fourth. The estimated (from recall household survey) total annual catch that will be impacted is about 49,000 kg, or an average of about 243 kg per household.

Table 4: Estimated % impacts on the livelihood components

No	Village	No of HHs	Housing	Paddy land	Garden	Pond	Upland	Grazing land	Aqua
I	Zuoih commune								
1	Thon 2	48	100%	100%	100%	100%	30%	50%	100
2	Pa Dhi	62	100%	100%	100%	100%	30%	50%	100
3	Pa Rum B	52	100%	100%	100%	100%	50%	70%	100
4	Pa Rum A	44	50%	100%	20%	20%	10%	10%	50-70
II	Ta Bhing								
7	Vinh/Pa Tôi	117	0	0	0	0	15%	15%	

Source: Volume 2: Reservoir resettlement and development plan - TA 4625-VIE

Besides, off-farm livelihood activities of people in reservoir zone will be impact in different way - some positively impacted and some negatively impacted:

- Gold mining will face difficulties
- Potential increase in job opportunity
- Carpentry works will increase due to house building in resettlement
- Increase opportunity for trade and business

4.2. Impact of dam and reservoir on the lives and livelihoods of the people in upstream zone:

In general terms, the impacts upstream of the reservoir will be small. The creation of dam will eradicate long distance migrant of fish. Thus, the long distance migratory fish such as *Anguilla Marmorata* will disappear, but not many others. Moreover, the *Anguilla Marmorata* has very low biomass in the rivers upstream of the reservoir. It is likely that some of the fish species that will stock the reservoir also will migrate up the rivers some km for spawning, and they can be fished upon during the migration. Besides the disappearance of this species, it is not likely that the fish fauna upstream of the reservoir will be much impacted. At this stage it is not possible to estimate the impact on the fisheries in the upstream area

4.3. Impact of dam and reservoir operation on the lives and livelihoods of people in downstream zone

4.3.1. Dam and reservoir formation:

- The dam will totally block fish migration and thus significantly impact downstream catch of migrating species;
- The dam and reservoir will cause sediments to settle in the reservoir and the clear water released will have less nutrients for aquatic life, and alluvial plains rejuvenation; and
- The released water will be colder and deoxygenated, also unfavorable for aquatic life.

4.3.2. Operation of the power station: Resulting in downstream river level fluctuations, on a daily basis:

- Will impact the ecology and reproductive biology of those remaining, non migratory aquatic species;
- In zone 2 some river bank erosion will occur, which will affect some river bank gardens and crop land; and
- Access to the river for domestic water collection and domestic animals will be impacted.
- Decreased discharge and water level during periods of the day due to peaking operation of the power plant that could make transportation and construction material exploitation on the river difficult, and reduce the capacity to draw water from the river
- Decreased discharge and water level during filling of the reservoir that could disrupt recharge of the underground water wells
- Less flooding during the wet season that could increase the risk of insects, etc. as that can induce an increase adverse impact on production and daily life.

According to the assessment of PPTA, large fluctuation water flow and water level in a stretch between the dam and the confluence with Cai River will induce a strongly decline in fish productivity. It is estimated that, the productivity of migratory and non-migratory may decrease up to 50% and 40% respectively. This will have a major impact on the lifestyle and the diet of the local people. Fish is staple food and the major protein source in their daily diet. Loss of fishing resources will have a devastating impact on the nutritional status and consequently on the health of the villagers. All these changes will also affect the worldview and identity of the local people, especially the Co Tu ethnic minority people, since people experience a strong emotional and cultural connection to the river.

4.4. Impact of construction activities on the live and livelihoods of the people in project land area.

4.4.1 Impact of land acquisition:

Land acquisition to build mainly permanent and in some case temporary project components will impact the current uses and/or owners of such land, in that those user or owner will loss the ability to use, produce crops, conduct businesses etc from those lands.

Total area to be acquired is 110 ha of agricultural land (in which 35 ha is temporary acquired) including 53 ha of wet rice land, 21 ha of production forest land and 36 ha of other crop land. It is estimated that, 1/3 of the villagers from Thon Vinh, or 31 households and 180 people, will be severely affected and vulnerable affected people. .

Forests utilized by the local villagers are located within the impacted areas. The effect is mainly on fruit trees, bamboo, palm trees and rattan collection, which bring cash income for the villagers. The effect on the collection of these forest resources will be an increased distance to the collection areas and increased pressure on forest resources in these areas, which may lead to less cash income and environmental deterioration

4.4.2. Impact of projection construction workforce and related activities:

During the approximately 4 years of construction of the Song Bung 4 project, a large and significant - in comparison to current local population levels, of construction workers or related workers, camp followers and the like will immigrate into the area.

If not controlled, this will have negative 'induced' impacts on the local population, such as;

- social and possibly moral disruption;
- possible increase in sexually transmitted diseases (STD);
- possible increase in human trafficking;
- increase on prices of food products due to increased demand for local foods; and
- Extraction of natural resources by the immigrants.
- The influx of the large number of construction and transportation vehicles will have impacts on local traffic, and also likely to increase traffic accidents etc.

In addition, cemeteries of six villages have been identified as lying within the affected Project Lands with a large amount of graves. If any graves are affected by Project Lands, they will be relocated, respecting the Co Tu cultural habits. If relocation of graves is not organized in accordance to the Co Tu tradition and in agreement with the villagers, it will have a devastating psychological effect of fear for the dead causing bad luck on the affected people.

5. COMPENSATION AND RESETTLEMENT PROVISIONS FOR AFFECTED PEOPLE

In 2005, the ATD3 contracted PECC3 to undertake a field and village level investigations and consultations, and then to draft the "Feasibility Study: Compensation and Resettlement Plan (CRP)". The PECC3 focused their work only on the reservoir area, the four inundated villages. The Compensation and Resettlement Policy and Entitlement Framework they drafted refers to various and many GoV laws and decrees, but has insufficient reference to ADB policy. The ADB's PPTA decided that it should reinvestigate and collect baseline data on all livelihood and social aspects of the project, to consult fully with all APs on a range of issues, and to develop and draft a new Plan

The Song Bung 4 Projects Social Safeguard Policy and standards of compensation and

resettlement entitlements applicable to affected persons, has been developed based on:

- The GoV's laws, decrees and other instruments related to resettlement (see above);
- the ADB's Policies on Involuntary Resettlement and Indigenous Peoples;
- consultations with the affected persons;
- Detailed understanding of the affected people's current livelihoods and living standards, how these will be impacted, and the potential for relocation and resettlement in optional resettlement sites.

5.1. The basic compensation and resettlement principles of the SB4 Project include the following:

- i. The resettlement plans developed will have four main elements:
 - compensation for lost assets, livelihood and income;
 - full assistance for relocation and assets restoration;
 - long term assistance for livelihood restoration, to achieve *at least* the level affected households would have had without the project; and
 - Long-term assistance to help the poor and vulnerable to improve their socio-economic status.
- ii. Involuntary resettlement as a “development opportunity”, and the aim is to transform the dispossessed or displaced people into project beneficiaries, particularly the poor and vulnerable;
- iii. Besides direct compensation for the losses, severely affected APs will also be entitled to additional assistance for livelihood restoration
- iv. All affected populations will be equally eligible for compensation and rehabilitation assistance, irrespective of tenure status, social or economic standing and any such factors that may discriminate against achievement of the objectives outlined above.
- v. Lack of legal rights to the assets lost or adversely affected will not bar the AP from entitlements to such compensation and rehabilitation measures.
- vi. APs will be fully consulted and will participate in the different stages of project preparation and implementation of the Resettlement and Ethnic Minority Development Plan (REMDP). The comments and suggestions of affected people and communities will be taken into account during the design and implementation phases of resettlement activities such as selection of resettlement sites, developing livelihood activities and designing housing, village lay out etc..
- vii. The Policy and Plan will be compatible in substance and structure with affected ethnic minorities’ culture and social and economic institutions.
- viii. The utilization of local GoV institutions - DPC and CPC - plus the specially established Village Resettlement Committees - for the preparation and construction of the Project will be maximized, and capacity building will be required.
- ix. The livelihood restoration and infrastructure development components will be integrated into the GoV socio-economic planning process.
- x. The process of resettlement and restoration will be long-term in perspective, and flexible and creative. Thus, a consultative and iterative planning process will be instituted, and facilitated by full time Technical Assistance and support DPC staff, located in the Villages, to ensure that the final planning and implementation process address the priorities of all APs including the poorest

and women.

5.2. Entitlements for compensation and support of Project Affected People

5.2.1. Entitlements for compensation and support for people affected by reservoir inundation:

- Loss of agricultural land: for which both cash compensation, as payment for land acquisition, and replacement land are applicable
- Loss of housing and non-agricultural land: for which both cash compensation, as payment for land acquisition, and replacement land are applicable
- Survey and Design of village layout
- Development of village land and internal roads:
- Compensation loss of House and other Fixed Assets
- Entitlement for compensation and culturally appropriate means of dealing with the dismantling or removal and reestablishment of the Co Tu Communal House, and Graves
- Entitlement for compensation for loss of standing crops or trees, other productive assets
- Entitlement for Loss of Livelihoods: All livelihoods impacted or lost will be at least restored and replaced. If a particular livelihood cannot be restored (e.g., fisheries) then it must be replaced by another equivalent livelihood or combination of livelihood activities. If current household income is below poverty line, the household will be assisted to increase its cash and non-cash income. Livelihood restoration program include: agricultural development program, Village Forestry Program, Reservoir fisheries program, and Livestock Development Program
- Entitlements for loss of common property Infrastructure compensation
 - The commune Meeting hall will be restored, and if required by any village, a special purpose village office will be constructed.
 - A roofed market will be constructed in each village, if there is a demonstrated demand and need. Each village is entitled to the construction of (many) small-scale irrigation systems, as detailed in the REMDP.
 - Each village is entitled to the construction of gravity; spring sourced domestic water supply systems, similar to the ones currently used.
 - While each APs is entitled to Electricity supply, the actual type to be provided is still under review.
- Entitlements for loss of common property resources compensation:
 - While few community forest resources will be lost, all APs are entitled to participate in the Community Forestry Program (section 1.10.2 above) of the livelihood, which will be undertaken within the village's total land and forest area.
 - Entitlement for loss of community grazing land is participation in a livestock development program. Entitlement for loss of community riverine fisheries is participation in the aquaculture development plan.
- Educational and Health Entitlements

Education and health entitlements, over and above what would normally be an entitlement arising from GoV rural development and poverty reduction programs are specified here.

- Allowances and Special Transitional Measures

APs are entitled to a range of allowances and transitional measures including: Movement Allowance, Movement incentive allowance, Village leaving Ceremony, House warming Ceremony, Food Security during the transitional Period, Allowance for vulnerable Household, Wage Labor in a range of resettlement programs, Departure Package, Grievance Procedure, Transitional Health Care, Transitional Electricity Allowance

- Schedule of Livelihood Operational Support Phase out

A range of agricultural and other livelihood supplies will be provided to APs who request them, for the period of resettlement, including veterinary medicines, fertilizers, seeds, fish fingerlings etc. However, the provision of such supplies will be provided gratis only for years 1 to 3, while from year 3 to 4 the project will pay for 50 %, after which the villagers must cover a cost themselves.

5.2.2. Entitlements for compensation and support for people affected by project land:

Besides direct compensation for the losses of land, crops and other assets, severely affected APs will also be entitled to additional assistance for livelihood restoration as people in the reservoir zone

5.2.3. Entitlements for compensation and support for up/downstream people affected:

The entitlements for the downstream affected persons (DAPs) is to ensure that all impacts on downstream persons, be they livelihood or social impacts, or impacts on infrastructure, are either mitigated (table 1) or compensated, and if the livelihood impact is significant, then that compensation will include livelihood restoration (table 2) to ensure all DAPs will be at least as well off as they would have been in the absence of the Project.

Livelihood restoration program include: aquaculture development program, livestock development program, fruit tree planting program.

Table 5: Summary of mitigable impacts, location and proposed mitigation

No	Impacts	Expected Location of Impacts	Mitigation Measure
1	Underground domestic water sources - during dam filling.	2 Dai Son villages on the Song Bung	Sufficient dam bypass to ensure downstream domestic supplies
2	Erratic water levels impacting river based property, boats and other things	2 Dai Son villages on the Song Bung and possibly 6 other villages in Dai Son Commune 1 Co Tu Village (Pa Dau 2)	Installation of public warning systems Construction of boat jetties
3	Erratic water levels impacting persons and livestock using the river	2 Dai Son villages on the Song Bung and possibly 6 other villages in Dai Son Commune 1 Co Tu Village (Pa Dau 2)	Installation of public warning announcement systems
4	River transportation difficult in times of low water release	2 Dai Son villages on the Song Bung	Construction of tracks, and boat jetties
5	Loss of land for infrastructure	2 Dai Son villages on the Song Bung river and 1 Dai Son village on the Vu Gia	River bank protection in key places

Table 6: Summary of impacts for which compensation and restoration measures will be applied

No	Impacts	Expected Location of Impacts	Compensation measure
1	Loss of protein from aquatic products	All downstream villages, which catch aquatic products for consumption. All upstream villages which catch aquatic products which will be impacted (migratory species)	Livelihoods restoration program
2	Loss of income from aquatic products	All downstream villages which catch aquatic products for consumption All upstream villages which catch aquatic products which will be impacted (migratory species)	Livelihoods restoration program
3	Loss of riverside garden or crop lands	2 Dai Son villages on the Song Bung and possibly 6 other villages in Dai Son Commune	Livelihoods restoration program
4	Loss of trees or other perennial crops	2 Dai Son villages on the Song Bung	Livelihoods restoration program

The entitlements for the upstream affected persons (UAPs) is to ensure that the impact on migratory fish catch is compensated via a livelihood restoration - preferably fish farming - program to ensure all UAPs will be at least as well off as they would have been in the absence of the Project.

2.1.1.3 5.3. Financing provided for compensation and resettlement:

5.3.1. Source of funding

The activities under the Resettlement and Ethnic Minority Development Program (REMDP) will be financed by EVN as well as a grant to be provided by ADB to Quang Nam Province through the Japan Fund for Poverty Reduction (JFPR). Is the JFPR approved The EVN finance activities will be infrastructure of the proposed resettlement sites, housing and commune facilities, transitional allowances for APs, Operational and Implementation support for the Resettlement Management and Implementation Unit (RMIU) to be set up at Nam Giang District, compensation for land acquisition, and the independent monitoring of the implementation of REMDP. The JFPR financed activities focus on the improvement of livelihoods of affected people in the new sites, mitigation of downstream impacts community preparation and training, social management of APs in the new sites and technical assistance for implementing the livelihood program.

5.3.2. Budget Management and Disbursement

For certain of the larger infrastructure items of expenditure, and the larger investments or purchases, the contracts will be managed by ATD3, and the expenses will be paid direct to contractors by ATD3.

In the case of most of the other expenditures, such as the smaller scale infrastructure, infrastructure built by villagers, the livelihoods programs, staff and villagers' allowances, operational coats etc, the budget will be managed and disbursed by the RMIU, with oversight by both the DRC and the ATD3. For this purpose, ATD3 will establish an account with the Nam Giang District PC, and finance this account to the levels required at different times, and according to a disbursement schedule of expenses to be developed and submitted on a quarterly basis. For the expenses to be financed under the JFPR grant an imprested account will be opened by the Namg Giang District PPC and ADB will provide the cash advances for every quarter.

Total budget for REMDP is estimated 22,487,076 USD. Of the total, 19,987,076 USD is funded by EVN, the remaining of 2,500,000 will be funded by JFPR

The ADB's PPTA have developed an indicative schedule for the implementation of the REMDP. REMDP is projected lasting 6 year, from 2007-2012. However, this schedule will have to be revised during the detailed planning of the project.

6. TENSIONS AND CONTROVERSIES ARISEN IN THE AFFECTED COMMUNITIES RELATED TO THE PROJECT:

According the survey result of PPTA, there are some relations among affected people to be placed in Zuoih commune that must be paid attention during the resettlement implementation process:

- There was a disagreement over land between Pa Dhi and Pa Rum B villagers in 1982, leading to blood shed and, consequently, hostile relations between the two villages. According to the villagers and the local authorities, this past conflict is now resolved. However, still neither the villagers in Pa Dhi nor the villagers in Pa Rum B wish to be resettled in the same village with each other.
- Relations between Co Tu and Kinh Peoples: There are evident conflicts over the land the immigrated Kinh families have taken over without consent from or payment to the Co Tu families owning the land in Pa Dhi and Pa Rum B. People in these villages do not like the idea of living close to Kinh people.

Tensions and controversies will probably be arisen during compensation, resettlement process and related activities as follows:

- Increase population in resettlement places likely induce pressure on natural resource such as: agro-forestry production land, water resource, timber, NTFP. Consequently, conflict between the resettled people and the host people will be arisen.
- Possible disruption of the kinship relations of the displaced people since people of close kin are not resettled at the same resettlement place or not be relocated residential plots next to each other . This will raise tensions among resettlement community.
- If a village will not consider that the spirit of the resettlement location is beneficial to them, they will not feel confident in that site. Resettlement should not be stable: The villagers would later move away to another place, which in its turn would increase the risk for land related conflicts in the area
- If relocation of graves and Guol houses is not organized in accordance to the Co Tu tradition and in agreement with the villagers, it will have a devastating psychological effect of fear for the dead causing bad luck on the affected people. Consequently, tensions among community are increased.
- Different benefits between the resettled communities and the host communities: the host communities who have to share land and other natural resource with the resettlement people are not entitled for satisfied compensation and assistance. This will possibly induce divergences and controversies. .
- Inequity and lack of transparency and political during the project implementation process and compensation negotiations has both imposed conflicts within and between the villagers and entrenched mistrust between villagers and the local authority.

7. SOCIAL ORGANIZATIONS ARE ACTIVE IN THE PROJECT AREA PROMOTING LOCAL DEVELOPMENT AND SUSTAINABLE RESOURCE MANAGEMENT:

- Since 2001, District Agriculture Extension Center has introduced and provided new variety, insect prevention measures and technique for wet rice, livestock and aquaculture production. At present, in each commune there is a agricultural extension staff.

- Production forest development program (Cinnamon tree) was implemented by The District Settlement and Fixed Cultivation Board in 1997 and 2001. Due to none offered training in cinnamon cultivation either; consequently only 50% of the planted trees survive, and the growth rate of the trees is very low. No harvest has yet taken place.
- Nam Giang District has a cattle credit program; few villagers in Zuoih have been given loans for cattle development.
- In Zo Ra village a Japanese NGO started a women's traditional weaving project two years ago, but the participating women have not yet achieved any considerable income from selling their traditional weaving products.
- FIDR, a Japanese NGO, has provided most households in Thon Vinh village with cows and organized training in livestock breeding, which has lead to reducing occurrence of cattle diseases
- The traditional leadership structure in Co Tu villages exists side by side with the national political leadership structure. Accordingly, all the villages have a Party cell and the Vice Head/Chief of the village, Police officer, Women's Union, Farmers' Association, Youth Union, and National Fatherland Front. They all participate in different rural development issues in the villages
- The Co Tu have a traditional forest management system. Each village has its own regulations, and forest management areas are divided between the local villages. These regulations are based on customary regulations and local understanding of the environment and not on the Land Law. As a result, sometimes a conflict appears between villages over the exploitation of forest. In the late 1990s, the district authorities established a forest protection system. Every village established seven forest protection groups with three members in each group. Average remuneration was 360,000 VND/hectare. However, in year 2000 this remuneration was stopped and the system was dispersed.

According to the consultation of PPTA, social organizations are viewed as having most success in improving livelihoods of local people includes: District Agriculture Extension Center and FIDR, a Japanese NGO.

8. THE GOVERNMENT BUDGET FOR LOCAL DEVELOPMENT AND PROGRAMS SUPPORTING EFFORTS TO IMPROVE LIVELIHOODS AND IMPROVE ACCESS TO NATURAL RESOURCES:

The government budget for local development consists of basic investment capital and assistance budget funded through National Target Programs for infrastructure development: transportation roads, school, clinic; agriculture development, agricultural extension training and social service access improvement: healthcare, education such as 135 Program, Program 134, 133 Program...etc.

According to the 2005 statistical yearbook of Quang Nam Statistical Office, total government budget invested for Quang Nam province in 2005 was 1,652,823 MVND. Of which 595,765 MVND was managed by the Central, the remainder of 1,057,058 MVND was managed by the Local (Quang Nam province). Of total invested budget, some 30% equivalent to 495,847 MVND was invested for urban area, 70% equivalent to 1,156,976 MVND was invested for rural area.

Total number of communes and towns of Quang Nam province in 2005 was 233 consisting of 204 communes and 29 towns. Total population of the entire province was 1,465,922 persons, of whom 1,215,153 persons come from rural area, 250,770 persons come from urban area.

Thus it is estimated that an average amount of per capita investment government budget in rural area in 2005 was around 0.9 MVND/year.

Regarding the reservoir zone, some following National Target Programs have recently been seen implemented:

- Program 135 (Socio-Economic Development Program for Extremely Difficult Communes in Ethnic Minority and Mountainous Areas). In 2005, Program 135 provided Zuoih Commune with 400 MVND for improving local infrastructure. This amount was used for the construction and maintenance of sections of the commune road to the national road 14D and made investment in water supply system for extremely difficult villages in term of water.
- Program 133 - NTP-HEPR (National Target Program for Hunger Eradication and Poverty Reduction) and the interconnected Program 139, which guarantees all poor households with free health care and free education for children.
- Forest and forest land allocation for the local people program to take care and protect.

No more detailed information and data on government budget invested in Upstream and Downstream zones available.

9. COMMUNITY-BASED ACTIVITIES WOULD BE FUNDED AND STRENGTHENED IF ADDITIONAL FINANCING WERE MADE:

Based on the survey and consultation result of PPTA, livelihoods restoration and health and education services are the priority of the local people. Thus, if additional financing were made available, the following community-based activities would they like to see funded or strengthened:

Basic training in management of compensation for productive use will be provided to those receiving cash compensation.

Issues land use right certificates to male and female heads of households for the permanent agricultural lands, and to the village for the communal agro forestry lands.

Agriculture and livestock extension services will include extension knowledge on upgrading traditional skills and appropriate new skills in farming and husbandry.

- Fisheries and aquaculture development program
- Village Forestry Development and management Program
- Community health and education development
- The capacity building training for affected people. Increased knowledge of the APs would result in effective use of resources provided under the resettlement plan and livelihoods activities.

Local people prefer NGOs, District resettlement management and implementation unit and communal authority involved in delivery of additional support. In addition, almost women in the area wish to participate in these activities to ensure woman's interests. Women have to be promoted for active participation in all decisions regarding land resource allocation and management and address the problems of women in resettlement.

Regarding approaches, the local people want to participate in almost activities relating to them, from planning to implementation stages and have entitlements for monitoring - Down Top Approach. Prior to Song Bung 4 project, almost implemented projects in the area were approached from Top to Down, thus they were not satisfied. (E.g. in 2005, Program 135 provided Zuoih Commune with 400 MVND for improving local infrastructure. This amount was used for the construction and maintenance of sections of the commune road to the national road 14D. Selection of this investment certainly did not follow a participatory process in the commune. During group meetings and interviews with villagers, their main priority was the health and education of their children).

Conclusion

Song Bung hydropower project will enhance the socio-economic development of Nam Giang district, Quang Nam Province as well as the whole country. In addition to these benefits, the project will have many adverse impact on the lives, livelihoods of the local people and transform ecosystem functions and services in the area they rely upon.

It is evident there will be some permanent socio-economic and livelihood losses that can be offset by beneficiary-defined investments funded by a revenue sharing formula or other sources. Project affected people can be obtained benefits from 3 following types of benefit sharing:

- Sharing project service: Thanks to the project, Project Affected People living in reservoir zone who will have to be resettled by inundation will be entitled to electricity supply to each resettled village and each household. Moreover, Project Affected People living in upstream zone and downstream zone will be facilitated to faster and easier electrification and improved services access.
- Revenue Sharing: Project Affected People will have entitlement to participate in all community-based activities aimed at long-term livelihood restoration as mentioned in section 9 funded by a revenue sharing formulae or other sources.
- Non-Monetary Benefits: Almost Project Affected People were interested to see new entitlement replace those that will be lost. They wanted to be provided entitlement replace all common property Infrastructure such as transportation road, water supply system, community hall, market, health care center, post office and common property resources such as community forest, community grazing land that will be lost.

This report provides some assessment on socio-economic and ecosystem functions and services impacted by project based upon the synthesis result of available studies on Song Bung 4 hydropower project such as: EIA report, PPTA report, Resettlement and Ethnic Minority Development Plan. It will provide initial input at local level that will facilitate the process of guidelines preparation and complement other TA activities to design the Pilot Project.

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Annex 1

Table 1: Population and Ethnicity in all households of Zuoih Commune - Reservoir Zone

Name of villages	No. HHs	HH Ethnicity		
		Co Tu	Kinh	Kinh husband / Co Tu wife
Thon 2 (To be inundated)	48	46	0	2
Pa Dhi (To be inundated)	62	59	2	1
Pa Rum B (To be inundated)	52	51	1	0
Pa Rum A (To be inundated)	44	42	1	1
Total, 4 villages	206	198	4	4
Cong Don (Not to be inundated)	80	80	0	0
Papang (The host in resettlement site)	21	21	0	0
Total, Commune	307	299	4	4

Table 2: Population and Ethnicity of villages in the Project Land

Commune	Affected village	Total no. of HH in village	No. of persons	No. of Co Tu HHs	No. of Kinh HH
Ta Bhing	Thon Vinh	94	540	88	6
	Pa Toi	23	109	22	1
	Zo Ra	52	250	52	-
	Pa Va	43	190	38	5
	Pa Rong	30	167	30	-
	Pa Xua	85	473	82	3
	Pa La	32	153	30	2
	Ka Dang	62	328	62	-
	Pa Jing	56	292	56	-
Total	9	477	2,502	460	17
Ca Dy	Thon K'Rung	33	166	33	-
	Thon A'Roong	53	248	53	-
	Pa Pang	71	327	69	2
	Pa Lanh	66	299	61	5
Total	4	223	1,040	216	7
Thanh My town	Pa Dau	112	520	86	26
	Thanh My 1	67	293	-	67
Total	2	179	813	86	93
Total villages	15	879	4,355	762	117

Table 3: Demography of villages in Dai Son Commune - Downstream zone 2

Village	No. of HHs				Ethnic group
	Total	Fishing	<i>subsistence</i>	<i>commercial</i>	
Thac Can ¹⁾	60	29	23	6	100 % Kinh
Dau Go ¹⁾	65	25	25	0	100 % Kinh
Ba Tot	30	4	4	0	100 % Kinh
Dong Cham	75	20	11	9	100 % Kinh
Bai Qua	74	9	2	7	100 % Kinh
Tan Doi	93	0	0	0	100 % Kinh
Hoi Khach Dong	161	11	1	10	100 % Kinh
Hoi Khach Tay	121	0	0	0	100 % Kinh
Total	679	98	66	32	100 % Kinh

¹⁾ Thac Can and Dau Go are located along Song Bung while the other villages are along Song Cai / Vu Gia.

Table 4: Demography of households fishing in the Vu Gia, Dai Loc District - Down zone 3

Commune	No. of villages		No. of Households					Ethnic group
			Total no. HHs, all villages	In Fisher villages				
	Total	With fishers		Total HHs	no. HH fishing	Subsistence	Commercial	
Dai Hong	10	10	2,195	1,965	59	16	43	100 % Kinh
Dai Lanh	10	8	2,030	1,390	238	162	76	100 % Kinh
Dai Dong	8	3	2,565	980	34	14	20	100 % Kinh
Dai Phong	8	1	1,652	258	139	129	10	100 % Kinh
Dai Quang	10	5	2,628	1,653	386	347	39	100 % Kinh
Dai Minh	8	8	1,808	1,808	528	505	23	100 % Kinh
Dai Cuong	9	1	2,091	329	30	10	20	100 % Kinh
Dai Nghia	14	1	2,948	301	103	100	3	100 % Kinh
Dai Hoa ¹⁾	10	10	3,319	1,931	152	147	5	100 % Kinh
Ai Nghia	13	1	3,831	253	9	7	2	100 % Kinh
Total	100	48	25,067	10,868	1,678	1,437	241	100 % Kinh

¹⁾ For Dai Hoa Commune, only the ten villages assumed to have households fishing in Vu Gia have been included.

Table 5: Population and Ethnicity of villages in Upstream Zone

No	Commune/village	Population		Ethnic group
		No of HHs	No of Pers	
I	Cha Val commune	507	2200	
1	Lo Bo 1	67	325	Co tu
2	Lo Bo 2	39	172	Co tu
3	A Ding	128	540	Co tu
4	A Bat	166	698	Co tu
5	Can Dil	67	269	Co tu
6	Ta Un	40	196	Co tu
II	Dac Pring commune	177	926	
1	Thon 49	21	129	Ve
2	Thon 50	50	260	Ve
3	Thon 47	35	182	Ve
4	Thon 48	59	278	Ve
5	Thon Pa Taot	12	77	Ve
III	Dac Pre commune	202	1153	
1	Thon 56B	69	378	Co tu
2	Thon 56A	16	93	Co tu
3	Thon 57	48	252	Co tu
4	Thon 58	69	430	Co tu
IV	Zuoih commune	82	395	
1	Cong Don	82	395	Co tu
V	La Ê commune	287	1734	
1	Con Zot 1	48	312	Co tu
2	Pa Lang	54	320	Co tu
3	A Xo	59	335	Co tu
4	Đac Ngọn	28	162	Co tu
5	Pa Oi	59	325	Co tu
6	Pa lan	39	280	Co tu
VI	La De commune	340	1942	
1	Dac Pàh	22	144	Co tu
2	Dac Loi	13	65	Co tu
3	Dac Cho Dong	12	86	Co tu
4	Cong To Ron	73	450	Co tu
5	Dac Ốc	65	368	TaRiêng, Co tu
6	Dac Rê	23	158	Co tu
7	Dac Rích	31	173	Co tu
8	Dac Ro	37	209	Co tu
9	Dac Tà Vàng	48	214	Co tu
10	Hamlet 10	16	75	Co tu
	Total	1627	8350	

Annex 3: The resettlement site selection process so far

The process of resettlement site selection (and resettlement planning in general) that has been undertaken to date (as of August 2006) in the Song Bung 4 HPP has been complicated by the fact of two consecutive TAs undertaking the planning, (i) firstly the PECC3 hired by the ATD3 (EVN), and (ii) then the PPTA, financed for the ATD3 by the ADB.

- Resettlement sites proposed by PECC3 are as follows:

No	Alternatives	Advantages	Disadvantages
1	All villages move to Papang area.(i.e., only one resettlement site)	Plenty of flat land (they estimated 11 to 12 ha. of wet rice land)	Distant from homeland of 3 of the 4 villages Distant from the reservoir.
2	All villages move to the Cong Don - Pa Dhi axis	Close to homeland of 3 villages. Close to road and admin center.	Not enough flat land. Possibly not enough water for irrigation. Far from home for 1 village
3	1 village moves to Papang and 3 villages to Khe Boong, and Khe Zuioh.	All villages close to homeland. Some villages close to reservoir	Need to develop 2 general resettlement zone, and thus more expensive; One zone (south of the reservoir) may still lack land and irrigation water

The PECC3 then recommended alternative 3, which was later endorsed by the Quang Nam PPC in February 2006. However, at the time of Quang Nam PPC endorsement of alternative 3, it was apparently not aware that the ABD financed PPTA had been engaged, already for 4 months, to review and make their own, most likely different, recommendation of resettlement site for the APs of the Song Bung HPP.

- **From March to June 2006, the ADBs PPTA undertook a new round of** (a) technical and (b) participatory investigations and identification of potential resettlement sites. The participatory investigation encompassed comprehensive consultations with the APs, inclusive their own culturally proper investigations of the proposed resettlement sites done by the Village Elders. Basic understanding and agreements implicit in the focus and conduct of this work included;

* For Thon 2 village, Pa Pang certainly a good site, and consistently chosen by the Thon 2 APs as the best option for them. The remaining issues being:

- (a) to assess its actual carrying capacity, especially in terms of water, flat land for wet rice and forest products;
- (b) to assess the actual location of the new Thon 2 village; and
- (c) to develop an indicative land use plan.

* For Pa Rum A village, reservoir inundation will only impact its houses, not any of its fields, so consideration should be given to relocation of the houses only, a short distance, and maintaining - and developing - all of its wet rice, permanent gardens and rotational upland cropping fields etc.

.* For Pa Dhi village, the most acceptable and AP chosen site was the southern edge of the reservoir, in the Khe Zuioh valley, especially if no other village was to move there. However, efforts must be made to develop and fully exploit the carrying capacity of the area..

* Pa Rum B village was the only village for which a resettlement site selection was proving difficult.

In addition, an overriding and crucial factor in Resettlement Site selection for Pa Rum A and Pa Rum B is the development of the Song Bung 2 HPP. If this project is developed, then it will include the construction of a good road through the middle of the original villagers' areas of Pa Rum A and Pa Rum B, through Ta Buar commune. The fact or presence of this good road has two significant implications.

1. If Pa Rum A and B are not relocated there, or Pa Rum A moved out of the area (it is currently on the edge of its original village area) then it is likely that some other population may move into and benefit from the area, thus making Pa Rum A and B doubly impacted - relocation due to reservoir inundation and loss of their homelands by immigration.

2. A significant factor for not originally considering a move back to Ta Buar was the lack of, or distance from, services. However, the construction of the SB2 access road will bring these services into the area, and basically make the whole area a good potential resettlement 'zone'.

Following is the proposed alternative for resettlement site of PPTA

TT	Name of displaced villages	No of households to be displaced	Name of resettled villages	No of resettled households	Location of resettlement sites	Distance from resettlement sites to old villages
	Total	206		206		
1	Thon 2	48	New Thon 2	48	Pa Pang village	3 km
2	Pa Dhi village	62	New Pa Dhi village	62	Khe Zooih	1.5 km
3	Pa Rum B village	52	New Pa Rum B village	52	Khe Ta Bua and Khe Canh	6 km
4	Pa Rum A village	44	New Pa Rum A village	44	Khe Nau (vertical resettlement)	1.5 km

Appendix K: Rapid Appraisal Report on the Song Hinh Project. – Component 2 of the TA

Prepared by the TA Local Consultants - Institute of Energy Science and National Institute of Agricultural Planning and Projection

June 2007

Part 1: Introduction and project description

1. INTRODUCTION

The Government of Viet Nam is collaborating with the Asian Development Bank (ADB) on a Technical Assistance Project entitled Benefit Sharing Mechanism for People Adversely Affected by Power Generation Projects in Viet Nam (TA 4689-VIE). The TA aims to develop draft guidelines for long-term benefit sharing suited to conditions in Viet Nam and subsequently prepare a work plan to pilot test the draft guidelines.

The services of a sub-consultant with expertise in environment, social and rural livelihood assessment were engaged by ERAV and ADB to conduct rapid appraisals of three hydropower projects according to a standard format. The rapid appraisals look at hydropower projects at different stages of development (planning, implementation and operation) and will provide information needed to prepare the draft guidelines. This first rapid appraisal report covers the 160 MW Song Bung- 4 hydropower project, which is currently at an advanced stage of planning. The two other hydropower projects are the 210 MW A'Vuong project (under construction) and the 60+70 MW Song Hinh hydropower project (an operating project).

2. APPROACH:

Consistent with themes of equitable and sustainable development and integrated water resource management principles, a broad definition of project affected is adopted for the rapid appraisals. The assessments will consider project-affected communities upstream of the dam, in the reservoir and powerhouse areas and the impacted riparian communities downstream. This wider definition of project-affected people reflects the fact that dams have large environment and social footprint in the basin they are situated and can affect adversely on ecosystem functions and services and the livelihoods they support for all these groups (e.g. food, fiber, water resource access...). What is also important is to identify the relative scale of the impact of the dam on the livelihood and welfare of each group so that benefit sharing can be apportioned accordingly.

In part A, we start our work with desk review and synthesis of available studies on compensation, resettlement, and environment management and livelihood components of the Song Hinh project. This will focus on responding to key questions that will form the structure of rapid appraisal.

Set of key questions include:

- 1- What is the socio-economic profile of the communities that have been/will be affected by the dam, how their livelihoods are derived.
- 2- What ecosystem functions and services do the livelihoods of the PAP depend on and to what degree?

3- How and to what extent are/will the lives and livelihoods of project-affected communities be impacted? What impacts do the affected communities view as the most significant concerns?

4-What compensation and resettlement provisions were provided or are expected to be provided for the project affected communities? How was financing provided for compensation and resettlement and how many years did / will these last. How significant are these tensions or concerns?

5-What tensions or controversies have arisen in the project-affected communities that related to the dam, or ones anticipated? How significant are these tensions or concerns?

6-Which social organization is active or soon to be active in the project area promoting local development and sustainable resource management? Which organizations are viewed as having the most success in improving livelihoods of different groups of people (e.g. Woman's union, youth union, farmers union, NGO activities)?

7-What is the government budget for rural development in the area? What other programs significantly support efforts of the affected communities to improve livelihoods, improve access to natural resource and sustainable manage local resources (e.g. Program 135)

8-If additional financing were made available to project impacted communities, what community-based activities they would like to see funded or strengthened, and what organizations they would prefer involved in delivery of additional support. What approaches would they like that are different from at present?

This report provides information related to socio-economic and environmental profiles of project-affected communities in the reservoir, down/upstream of the dam, and in the project construction land area responding to 8 mentioned above key questions.

2.1.1 THE METHODOLOGY USED TO CONDUCT THE STUDY IS RAPID RURAL APPRAISAL (RRA). THE STUDY TEAM FACILITATED THE PARTICIPATION OF LOCAL AUTHORITIES AT THE COMMUNE AND VILLAGE LEVEL AND THE VILLAGER IN ALL ASPECTS OF THE STUDY.

Questionnaires designed by the surveyed team and approved by ERAV, including three kinds, 120 samples for the project, used to survey the following locations:

- 40 samples No 2 for resettlement households in Mui, Duc, Bau villages, Ea Trol commune and villages No1, No2, No3, Dua, Kit of Song Hinh commune.
- 15 samples No 3 for households, those live in the project area, Thung village, Duc Binh Dong commune.
- 15 samples No 3 for households, those live in the upstream area, Song Hinh and Ea Trol communes.
- 20 samples No 3 for households, those live in the downstream area, belonging to Chi Than village, Duc Binh Dong communes.
- 20 samples No3 for households, those live in the area vicinity to the project, belonging to Song Hinh and Ea Trol communes.
- 3 samples No 1 for communities in the reservoir's area.
- 3 samples No 1 for communities in the resettlement people received area.
- 4 samples No 1 for communities in the up/downstream area.

The study team included six persons of whom three were from NIAAP and three were from communes (they are the Chief of Secretariat or President or Secretary of the Communal People's Committee, who took the responsibility on translating, leading the way or gathering villagers). In the field, the team was divided into three groups; every group included one staff from NIAPP and 1 to 2 persons from local communes. Interviews using questionnaires were conducted at household's

houses, Guol houses or communal people's committee houses. In each interview, the team made sure that there was enough opportunity for villagers to talk freely, to ensure that we did not miss important information we did not cover in the questionnaire. The interviewed person was head of households for cards No 2 and No 3, old men, communal stuff or head of village for cards No1. There was an equal sample of men and women. This was important because women sometimes gave different answers from men and often remembered more details about what happened in the village. At the end of the day, the team worked together and tried to draw lessons for the next day so that improvements could be made. Besides interviewing, direct observation was used during the study.

3. GENERAL DESCRIPTION OF SONG HINH HYDROPOWER PROJECT:

The Song Hinh Hydropower Project licensed by the Government to construct in Phu Yen Province is a multi-purpose project. It has an importance strategy role in the modernization and industrialization process of the country. The dam is located in Duc Binh Dong commune, Song Hinh district, Phu Yen Province.

The Song Hinh Hydropower Project has 2 turbines with a capacity of 70MW. The average generation is about 380,000,000 KWh. It not only supplies electricity for the two provinces Phu Yen and Khanh Hoa but also increase the capacity of the national electric network to serve the electric requirement of the national economy.

Besides supplying electricity, the project supports irrigating for 5,500 ha of paddy rice of Son Gang commune, Song Hinh district and Son Thanh commune, Tuy Hoa district. The Song Hinh Hydropower Project is a supplementary water resource for Dong Cam irrigation network which safety irrigates for 25,000 ha of rice paddy of Tuy Hoa field in the dry months. It also facilitates a favorable condition for breeding and aquaculture.

The project construction started in 23 November 1995 and the facility was inaugurated in 31 March 2001.

The main features and components of the Project are summarized in Table 1 below:

Table 1: Main Features and Components of Song Hinh Hydropower Project

	Main Features	Unit	Quantity
1	Strengthen Water Level	m	211.85
2	Normal Water Level (NWL)	m	209
3	Minimum Operating Level	m	196
4	Reservoir Total Storage	10 ⁶ m ³	357
5	Reservoir Active Storage	10 ⁶ m ³	32.2
6	Installed Capacity	Mw	70
7	Safety Capacity	Mw	22.9
8	Average Electricity Potential in a Year	KWh	375.106
9	Number of Turbine groups	Groups	2
10	Calculated Discharge	m ³ /s	54.6
11	Safety Discharge	m ³ /s	19
12	Maximum Water Level	m	152.41
13	Minimum Water Level	m	132.25
14	Surface Area of the Reservoir (at NWL)	Km ²	41

(Source: Report on summing up compensation work for land acquisition of Song Hinh Hydropower Project, August 2002)

Part 2: Study result of Appraisal

1. SCALE OF IMPACT OF SONG HINH HYDROPOWER PROJECT:

The Song Hinh Hydropower Project has produced electricity since 2001. The Project is not only to supply electricity for the two provinces Phu Yen and Khanh Hoa but also to increase the capacity of the national electric network to serve the electric requirement of the national economy, sustaining the economic growth in the region.

Besides the gained project outputs, the project caused direct and indirect affections to many communes in Song Hinh district.

- Reservoir flooding (directly affected): 2 communes of Ea Trol and Song Hinh, with 9 villages, 422 households, 1913 persons (in which 288 households, 1209 persons in Ea Trol, 134 households, 704 persons in Song Hinh) will be resettled.
- Downstream area (indirectly affected): 3 villages of Duc Binh Dong commune with 582 households, 2251 persons who will be indirectly impacted by hydrological changes. This changes will impact to fishery activities and other social aspects.
- In the upstream area, there are 2 villages belonging to Song Hinh commune with 90 households, 450 persons who will also be indirectly impacted on their fishing and agricultural land and forestry land losing.

ACCORDING TO THE EIA REPORT PREPARED BY PECC I, FOLLOWING PROJECT IMPACTED ZONES WERE CONSIDERED:

- Reservoir zone
- Resettlement sites
- Project construction land
- Downstream zone

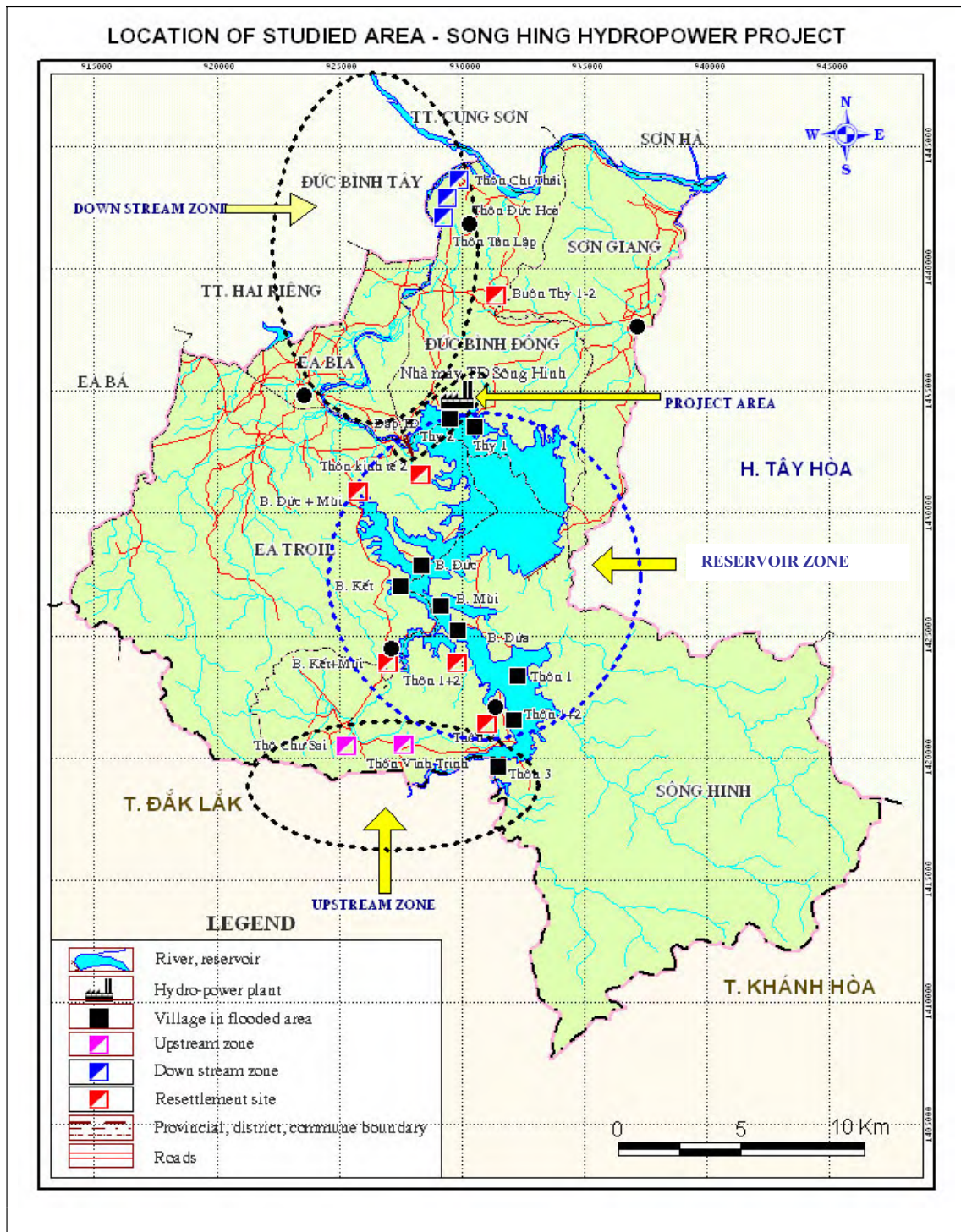
Table 2: Summary of Impacted Persons (villages, households and persons), Song HinH Hydropower Project

Project Component, Areas impacted by the project	No. of villages	No. of households (HHs)		Physically relocating (houses)		Land/Livelihood impacts			fisheries impacts			social and/or cultural impacts ⁱ	
		total	impacted	HH	Persons ⁱⁱ	HH	HH/SAP ⁱⁱⁱ	Pers./SAP ⁱⁱⁱ	HH	HH/SAP	Persons	HH	persons
1. Reservoir Inundation													
1.1: Ea Trol													
- relocating villages	4	796	288	288	1209	288	288	1209	96	96	384	288	1209
1.2: Song HinH Commune													
- relocating villages	5	463	134	134	704	134	134	704				134	704
1. Sub-total	9	1259	422	422	1913	422	422	1913	96	96	384	422	1913
2. Project Construction Lands													
- construction sites, camp areas		983	45	45	203	45	45	203	45	45	203	45	203
- Spillway dam		983	6	6	25	6	6	25				6	25
2. Sub-total	0	1966	45	51	228	51	51	228	45	45	203	51	228
3. Down/Upstream Areas													
- Duc Binh Dong Commune	3	983	582			40	40	180	194	194	750	582	2251
- Song HinH, E Tron Communes	2	463	90			30	30	150	90	90	450	90	450
3. Sub-total	5	1446	672			70	70	330	284	284	1200	672	2701
TOTAL	14	4671	1139	473	2141	543	543	2471	425	425	1787	1145	4842
E de				222	957	292	292	1287	186	186	834	228	1209
Ba na				92	403	92	92	403					
Kinh				125	603	125	125	603	239	239	953	917	3633
Ch-Thanh				20	113	20	20	113					
Luc Nay				10	46	10	10	46					
Niung				2	9	2	2	9					
Tay				2	10	2	2	10					

i Social or Community Impacts are the social ramifications of (either) relocation, serious livelihood loss and/or loss of natural resource which are an integral part of that community.

ii data on the number of persons is from surveys in April 2007 and from The report summing up resettlement work, August 2002.

iii SAP = Severely Impacted Persons. Those for whom mitigation will definitely require replacement and livelihood restoration and/or development.



2. SOCIO-ECONOMIC PROFILES OF PROJECT AFFECTED COMMUNITIES:

2.1. Reservoir zone:

According to the study result of Power Engineering Consultant Company 1 (PECC 1) and the report of People Committee of Song Hinh district on resettlement of Song Hinh Hydropower Project, the reservoir will inundate nine villages of two communes Song Hinh and Ea Trol of Song Hinh district, which must be moved.

2.1.1. Population and ethnic composition:

The survey result of the National Institute of Agricultural Planning and Projection (NIAPP) on April 2007 shows that the total population of the two communes in reservoir zone is 1259 households, 5668 persons, in which 463 households, 2042 persons in Song Hinh commune and 796 households, 3626 persons in Ea Trol commune. Ethnic composition is portioned as follow: 892 households Ede occupied for 71%, 92 households Bana occupied for 7.1%, 795 households Kinh occupied for 14%, Chiem Thanh occupied for 1.9%, Luc Nay occupied for 1% and Nung, Tay occupied for 1% . Average people density per a household is 4.5 persons/household.

2.1.2. History and traditional culture:

Ede and Bana is indigenous people who have been living here for many generations. The Ede and Bana people follow matriarchy, in which women must go to work on swidden fields, do farming works and weaving, while men keep a great responsibility in their family and do house construction, take part in festivals. Based on the surveyed data, village's locations have been changed many times but new and old villages are separated not far from each other. They often live together in community in village or hamlet and base on family's relationship. Village is an important administration unit and run by headman and patriarch. People have rarely had any contacts outside the restricted geographical area and their own ethnic minority group. The social relations governed by their common customs and rules.

According to Ede and Bana people's worldview, in the mid-world everything in the nature has a spirit, and the humans have to make offerings to these spirits in order to live in harmony with them. Spirit of rice, spirit of water, spirit of thunder, spirit of hunting, and souls of the dead are the most important spirits that must be respected. Basing on ages of persons died, local artists will come to make grave houses for praying them. Worship depends on household's economic conditions. If they are rich households, after burying a death person they will kill buffalo, cattle to invite villager's people to eat in order giving up worship. If they are poor households, they have not condition inviting people; they will continue worship until the day when a bribe giving up worship is conducted. Thus many traditional histories on worship with due rituals concerning to livelihood and life activities are preserved.

All community activities carried out in Guol house. In each village, there is a Guol house, which is a cultural center of the village. When festival or worship rituals carried out, all old man, headman of the village and villagers gathered to practice so that activities praying for raining, harvesting crop are preserved.

Besides the Ede and Bana minority groups, in the region there are 20 Chiem Thanh households, 10 Lac Nay households, 2 Tay households, 2 Nung households and Kinh households. The Kinh households came to the region, from provinces in the North, for constructing new economy zones in the region. They have a good relationship with Ede and Bana people.

All minority groups in the region live harmoniously together even though every group has its own living style such as Kinh have cultural house for meeting, Chiem Thanh have "Rong" house etc.

2.1.3. Healthcare situation:

There are centers of healthcare (CHC) in each commune center. These CHC have capacity for preventing diseases and treating the most common diseases. Urgent and operating diseases must be transferred to district or provincial hospitals. In almost CHC, there are only nurses and physicians to work.

The most common health problems in recent years in the region are respiratory infections during the dry season, including flu, bronchitis and pneumonia, digestive and eye sore diseases. Another

health problem is diarrhea, goiter in children, tuberculosis and gynecological diseases in grown up people.

Birth control is practiced in the region but not successful yet. Every year, number of husband and wife couples produced the third children are still high. This fact must be got more attention in the near future. Child malnutrition rates are very high, in Song Hinh Commune about 47% and in Ea Trol 75% of the children. The national child immunization program vaccinates all children. Children under five years also receive free extra calcium and vitamin B.

2.1.4. Education situation:

In the entire commune in the region, primary and secondary schools constructed firmly and neatly but the rate of children giving up school is increasing everyday. All pupils after finishing grade 2 in their village transferred to the communal schools for studying continuously. Numbers of girl and boy pupils are rather equal. All teachers are minority groups; this fact facilitates the teaching work. According to the statistic data in the two communes, number of pupils who graduated secondary level is very low, almost of them giving up their study after graduating first level, only a small portion among them continue their education at secondary level. As result of that, education level of the villagers in the affected villages is very low. According to the survey results, illiteracy rate account for 34%, people has elementary level education account for 52%, secondary level education 12% and upper secondary people account for 2%.

2.1.5. Water supply and sanitation

In the surveyed areas, most households use stream and well water. On average there is one well for six households. Nevertheless, in some recent years, lowering ground water level make the quantity of water in the well reduced and water for household's shortage in dry season. Household toilets are dug in the ground at a small distance from their houses or people release themselves waste in the nature that affect surrounding environment and beauty sport.

2.1.6. Access to electrical service

According to the survey result of NIAPP in April 2007, two communes in the reservoir zone were connected to the national electrical grid in 2003 under the resettlement program. At present, 100% villages of Song Hinh commune have been electrified. In E Tron commune, six of seven villages have also been electrified. Electrification ratio is 88%. Kinh Te 2 village has not yet connected to the electrical network since this village was established after resettlement implementation. Consequently this village was not taken into account in electrification of the resettlement program.

Resettled households were electrified funded by resettlement program while non-resettled households were electricified through rural electrification program of the district funded by the state budget. The electrical users have to pay monthly electrical utilization cost themselves. Regarding resettled households alone, they were provided an allowance for electrical utilization of 6000 VND during 12 months.

2.1.7. Poverty and food security situation:

According to the criteria of poverty line applied in 2005 (income per person/month below 200,000 VND), the poverty rate was 52% in Song Hinh, especially the poverty rate of Kit, Suoi Dua and Thon 1, 2, 3 villages in reservoir zone was extremely high (70%). This rate was 49% in Ea Trol, especially the poverty rate of Duc, Mui, Buon Bau villages in reservoir zone was also extremely high (75%). Results from the household survey show that nearly 70% of households in the two communes did not have enough food for the year and over 60% did not have enough rice to eat. They must rely on subsidiary crops such as cassava for their staple diet. The situation has lasted for many years already.

2.1.8. Livelihood system:

Livelihood of most minority groups in the region bases on multipurpose exploiting available land, forestry and water resources. In the livelihood system, agro- forestry takes a typical role because a great income portion of them originates from crop farming and forestry products. Their main production activities are swidden upland cultivation, production of rice, livestock, hunting and exploiting forestry products including vegetables and trees for disease treating ?. In addition, river fishing and captive breeding of fish are also importance livelihood actions of the villagers Fish is a main foodstuff source supplying protein for them and increasing their income.

- **Crop farming:** Cropping system of the villagers is based mainly on swidden upland cultivation, in which typical crops are upland rice and annual crops such as maize, beans, cassava, sesame and some kinds of vegetables. Upland rice is the most important staple crop. Paddy rice cultivation has been introduced to the communes recently. Only a few households cultivate paddy rice with a very small area because of difficulty in constructing and enlarging paddy rice fields.

Agricultural products are almost entirely consumed by the households themselves: selling appears only locally and in a small scale and mainly is cassava. The average annual food production per capita (in equivalent to paddy) is 100–150 kg. Approximately 30% of the major upland products is used for daily food (household consumption), 65% (mainly cassava and also maize) used as subsidiary food for people and livestock feeding, 5% for other purposes like wine making and traditional festivities.

- **Livestock husbandry:** Livestock husbandry system in the region is extensive farming. In average, each household raise 1-2 cattle and buffaloes, one pig, 10 poultries, 1-2 dogs. The main purpose for animal keeping is to generate cash income. Another purpose for keeping valuable large ruminants is for savings. In all the four resettlement villages at least 70% of total pig output is for sale in the market and the remainder is used for important events like village festivals, weddings, funerals or as gifts for relatives.

Generally, farmers practicing livestock husbandry have not paid attention in making animal's shelters. In a majority of households, pigs and poultry stay together with humans, leading to poor hygienic conditions. Due to poor sanitation, the health and growth of animals is affected.

- **Forest resource utilization:** In the past, when the hydropower project didn't exist the forests provided a wide range of products, which was used by the villagers as materials in construction, making handicrafts, implements, as foodstuffs and for sale (cash income). Both men and women collect forest products but in different ways:

+ Men cut trees for house construction and hunt wildlife used as foodstuff and for sale.

+ Women gather fruit, vegetables, mushrooms and leaves mainly for household food and medicine, and bamboo shoots for sale, firewood for cooking.

Nevertheless in recent years, forest system have been used for the defensive national security aim becoming defensive forestry that making a limited forest exploitation, only few households collect firewood for cooking daily. At present, the resettlement people are not getting a significant income from forest resources.

- **Fisheries:**

Since the impoundment of the Hinh River to form the Song Hinh reservoir in 1999, numerous people from other areas have come to the reservoir to make a living from fishing. The fishing is actively encouraged and fishing happens throughout the reservoir, year round except three flood months from October to December. In 1999, Song Hinh Reservoir Fishery Management Board (SHFMB) was established belonging to Phu Yen Youth Union to manage fishery in the reservoir.

A wide range of fish and other aquatic products are caught or collected from Song Hinh hydropower reservoir. Fishing gear is diversified and includes fishing net, cast net, hand net, landing net and gill net, trap, keep net, toxic trees, even hands, etc. At present it is estimated about 500 fishers use the reservoir, among them only 50 registered with the SHFMB who pay a monthly fee fishing fee. Almost local people living in the reservoir zone do not register with the SHFMB. Thus, electric shock method, which is illegal and destructive, is always taken place throughout the reservoir, causing adversely impact to fish reproduction and reserve in the reservoir.

- **Aquaculture:** Fish farming in the region is not paid attention by the villagers, only a few Kinh household have small fishponds. So far fish production is not high and they breed only a small quantity of Ro Phi and Chuoi fish. These households have just started breeding recently so harvesting production potential is not fully defined.

- **Non-farm activities:** According to the communal statistic data, there are several households who have trading shops but the quantity of goods is not abundant and goods are mainly served for daily consumption such as: dry fish, fish sources, salts and bowls, dishes. Other commodities as dressmaking, Tho Cam weaving are not paid attention by the local people.

- Average income per household is 8.4 MVND/year, of which 50% raised from crop farming, 24% raised from livestock husbandry, 17% raised from other sources.

2.2. Upstream and downstream zones:

In terms of social and livelihood impact, the downstream and upstream areas could be divided into two main zones:

- **Downstream Zone:** The region downstream of Song Hinh dam and close to the confluence with Song Ba river. Three villages of Duc Binh Dong commune are situated 12 to 15 kilometers from the dam, they are Chi Than, Duc Hoa and Tan Lap, are affected.
- **Upstream Zone:** all those villages in the watershed of the Song Hinh reservoir residing on and/or catching migratory fish from tributaries of the Song Hinh Reservoir.

2.2.1. Population and ethnic composition:

- **Downstream Zone:** Three villages situated 12 to 15 kilometers from the dam, lie along the Hinh River, and belong to Duc Binh Dong commune. It has a total population of 2251 persons in 582 households. All come from the Kinh people. They have tradition of rice paddy cultivation and caching fish rather effectively.
- **Upstream zone:**

There are two villages of Song Hinh and E Tron communes, Song Hinh district in the upstream zone, affected by the reservoir. Total population of the two villages is 90 households and 450 persons, of which Kinh people accounts for 82%, Ede 18% of the population.

2.2.2. History and traditional culture:

- **Downstream Zone:**

Old men in these villages reported that in the old times they have settled in other locations of Quang Nam province or other provinces. In 1996, they moved here to establish new villages close to the river's bank to live. Because they are Kinh people, all Kinh's traditional customs are preserved. They practices rice paddy cultivation, animal husbandry, and fish caching and trading.

- **Upstream Zone:**

Before 1975, Kinh along with Ede and Bana people moved here to live. Their cultural tradition is practicing rice paddy cultivation, fishing and developing forestry works.

2.2.3. Healthcare and education services:

- **Downstream Zone:**

In the villages of Duc Binh Dong commune downstream of the dam, education level of people is rather high. There are primary schools in all villages, especial there is a secondary school in Chi Than village. For higher education, pupils must go to Praod town to study. In general, education system in the location is rather good; the rate of children who go to schools is rather high.

There is a healthcare clinic, which is rather well equipped, in Chi Than village. Every year it has treated many dangerous cases. Vaccinating children is practiced and services for birth giving of women are replied well annually.

Upstream Zone: There are primary schools in these villages but the rate of children who go to schools is not high, only gain 45% of total children and pupils often drop out their schools in rainy seasons or the months between crop periods.

In these villages, there are not any healthcare clinics yet. In cases villagers get illness, they must go to the communal healthcare clinic or go to district level in case of serious diseases for treatment.

2.2.4. Drinking water supply and sanitation

- **Downstream Zone:** There are water wells or rainwater storing tanks in these villages. The Song Hinh's water is mainly utilized for bathing animals and irrigating crops, not used for cooking. Households have their own toilets but the way they do is traditional one that means digging underground holes. Rarely do they have two compartment latrines.

- **Upstream Zone:** Since the formed reservoir, households have used well water for living. From the survey data in the dry season, April 2007, well water is enough for household's living and animal's feeding. Sanitary system has been improved better in compare to the one when the project is not established. Formerly households didn't use toilets, today they have their own one at their houses but just earth holes, not two compartment latrines.

2.2.5. Access to electrical service

- **Downstream Zone:**

All three villages in Downstream zone have been connected to the national electrical grid funded by State budget through rural electrification program. Electricity were provided to each village by the State and then electrical users have to cover all expenditure for wiring to household connection, light fixtures and other accessories. The users have to pay electrical utilization cost monthly.

- **Upstream zone:**

All two villages in Upstream zone have been connected to the national electrical grid funded by State budget through rural electrification program. However, electrification ratio still remains low. Of total 70 households in Chu Sai village of E Tron commune, only 15 households are electrified since households who have not yet been electrified are scattered, leading to high cost for electrification that they cannot afford. The users have to pay electrical utilization cost monthly.

2.2.6. Poverty and food security situation:

- **Downstream Zone:** According to the poverty criteria in 2006, the poverty rate of Duc Binh Dong commune in 2006 is 36%, which is reduced by 6.4% in comparison to the one in 2005. Number of poverty households in three downstream villages is only 25%, these only shortage foods for one month in the year. There are many reasons causing household's

poverty; one of major reasons is land cultivation shortage for foods production. In average, every household has about 3000 square meters of two crops rice paddy land and 1.2 hectares of other annually crop land.

- **Upstream Zone:** Quite different to the downstream region, the life of people in the upstream region is lower. According to the surveyed data in 2006, the poverty rate in Song Hinh villages is 52%, in Ea Trol villages is 49%. The reason is land cultivation shortage for foods production and rice paddy cultivation. In average, every household has about 3000 square meters of upland. Thus, poverty rate is very high. Almost 80-90% of the households do not produce enough rice for the whole year. They have to eat rice mixed with cassava and buy rice for some months of the year.

2.2.7. Livelihood system:

- **Downstream Zone:**

Majority of people in the downstream region is Kinh people. In their livelihood system, agro-forestry play a dominant role, all most their income is from crop farming and animal husbandry. Main production activities are rice paddy and upland cultivation with main crops as maize, cassava, bean, breeding buffaloes, cattle, pigs and poultries. Besides, fishing and breeding fish are also one of important livelihood activities. It gives villagers with daily foodstuff source and extra income.

According to the survey result in April 2007, in Chi Than, Duc Hoa and Tan Lap villages, in average every household has about 3000 square meters of rice paddy land and 1.2 hectares of subsidiary crop land, at least one buffalo and two pigs. Average income of households from farming and animal husbandry is 16 millions VND, of which income from crop farming accounts for 67%, animal husbandry accounts for 21% and income raised from other sources accounts for 11%. Fishing production in the whole year 2006 in these villages is about 1710 kilograms. Almost fish output is for self-consumption, not for sale. In average, fish caching quantity is 13 kilograms per household per year in Chi Than village costing 390,000VND, 10 kilograms per household per year in Duc Hoa village costing 300,000VND and 8 kilograms per household per year in Tan Lap village costing 240,000 VND (an average price of fish per kg is 30,000 VND). About 30 households (about 5% of the 582 households) have trading shops creating a noticeable extra income for the families and the region.

- **Upstream Zone:**

The livelihood system in the upstream region is rice paddy and upland rice cultivation, forest jobs and fishing. Nevertheless, a majority portion of the production land had been inundated because of the formed reservoir that affected the livelihood of the people. In particular, formerly, every household has 2 hectares of agricultural land, 3 hectares of exploiting forestland but today one household has only 1 hectares of agricultural land and 1.5 hectares of defensive forestland. Based on the surveyed data in April 2007, average income per household is 8 millions per year, in which income raised from crop farming such as maize, cassava accounts for 49%, from livestock husbandry accounts for 24% and from other sources accounts for 27%. Besides, fishing production is also reduced because of inundated river and spring system that have caused declining in fishing productivity of 60%. In average, one household catch 7- 9 kilograms of fish per year costing from 210,000 to 270,000VND for household use.

2.3. Project land:

Based on the resettlement summing up data of Song Hinh hydropower project, the project will cause affection to one village of the former Ea Trol commune, presently Duc Binh Dong commune, consisting of 45 households with 203 persons.

2.3.1. Population and ethnicity:

Most of the population is Ede accounted for 66%. There are only 11 Kinh households, which accounted for 24%.

2.3.2. History and traditional customs and cultures of the Ede and Bana:

Ede ethnic minority are native people who have been living here for many generations. They often live together in a hamlet or village community, based on family relationships. Village is a dominant unit and run by headman and patriarch. People rarely contact with outside of their restricted geographical area and their own ethnic minority group. The social relations governed by their common customs and rules. There are 11 Kinh households living in the region, mainly farm and new economy doing.

2.3.3. Healthcare situation

There is not any clinic in these villages. All disease examinations and treatments must go to the healthcare clinic of Duc Binh Dong commune. Poor households are rarely examined and treated because of high expenditure on examination and rescuer. They often rescue themselves using their traditional medicines.

2.3.4. Education situation

All villages have classrooms situated at the village. Primacy and secondary schools are in the communal center. In general, quantity of pupils who go to school is little and illiteracy rate is increasing highly.

2.3.5. Drinking water supply and sanitation

Most households use well's water. Household toilets dug in the ground at a small distance from the houses or people release their wastes in the nature.

2.3.6. Access to electrical service.

Thanks to the resettlement program of Song Hinh hydropower project, this village was electrified in 1999. Electricity was provided to each household. Besides that they were provided an allowance of 6000 VND per capita for electrical utilization fee within 12 months at the transitional time. At present, electrification ration is 100%.

2.3.7. Poverty situation and food security:

According to the criteria of poverty line applied in 2005 (income per person/month below 200,000 VND), the poverty rate was 52% in Song Hinh, especially the poverty rate of Kit, Suoi Dua and Thon 1, 2, 3 villages in reservoir zone was extremely high (70%). This rate was 49% in Ea Trol, especially the poverty rate of Duc, Mui, Buon Bau villages in reservoir zone was also extremely high.

According to the surveyed data in 2007 and the criteria of poverty line applied in 2005 (income per person/month below 200,000 VND), the poverty rate is rather high and the number of foods shortage households from 6 to 8 months accounts for 70% in Thung village, Duc Binh Dong commune.

2.3.8. Livelihood components:

Household economy based totally on agriculture. Their main income is from swidden upland cultivation. Breeding buffalo and cattle only bring them to plough and pulling forces. People do not consider husbandry's products as commercial and now income is directly gained from husbandry..

- **Crop farming:** Cultivation system of households in the project region includes several kinds of major crops as upland rice, maize, peen and cassava. Upland rice is the most important crops. In the year 2007, agricultural area is 32 hectares. All most households in the region have not rice paddy fields due to irrigation network not exploited yet. Fruit tree system planned by the project does not give harvesting at present yet.

- **Livestock raising:** Livestock breeding is an important activity. At present, households only concentrate on breeding cattle used for plough and pulling purpose. In average, a

household has one cattle. Breeding pigs and poultries, that received little attention of households due to epidemic occurred annually.

- **Forest utilization:**

Today the government controls forestry limiting forest utilization, which brings households no significant income. Villagers mainly exploit bamboo shoots, vegetables for daily utilization, not for commercial purposes.

- **Fisheries and aquaculture:**

There are few families fishing and selling fish in their villages. Because fishing production is not noticeable, it is just the main product to improve the daily villager's life. Households report that they could catch more fish and shrimp from Hinh River in the old times, but today catching quantity is reduced because of the effect of Song Hinh reservoirs.. Many other aquaculture activities like tortoise, crap...etc. is also reducing and a quantity of fishing people is declining also. In festival days, fishing activities are increased.

Average per household annual income is 8 MVND, of which 60% raised from crop farming, 20% raised from livestock husbandry and the remainder 15% raised from other sources

3. ECOSYSTEM FUNCTIONS AND SERVICES AFFECT TO LIVELIHOODS OF THE PROJECT AFFECTED PEOPLE:

Ecosystem services defined as ecological processes that produce, directly or indirectly, goods and services from which humans benefit.

3.1. Reservoir zone:

As presented in the livelihood part, subsistence strategies of the people in the region are based on multipurpose utilization of available natural land, forest and water resources. Agro forestry production and fishing are the main livelihood activities for subsistence. These activities can describe as follow:

- **Foodstuff production:** in subsistence strategies, crop farming, livestock raising and fisheries are the main livelihood activities. The products produced and collected include rice, maize, fishes, meat and a range of vegetables. Since reservoir's construction, foodstuff production in the region have been affecting severely. The reservoir inundated almost the fertile cultivable land and riparian grazing lands of those people living where the reservoir formed.

- **Water resource access:** Rivers and streams are utilized for fishing and catching other aquatic species. This is the main source providing food and protein for the local. In addition, the River also provides water for agricultural production and drinking water. Reservoir formation will force them to move to new resettlement sites that are more far from the River than formerly sites. Thus, accessing the River will more difficulty and then livelihoods generating from the River will decrease severely.

- **Raw material:** Forest provides timbers for house construction, rattans for weaving, medical trees for curing, grass for breeding domestic animals and firewood for cooking. Song Hinh and its streams also provide construction materials such as sands and gravels. Since the constructed reservoir, all these activities have been affected and rarely in operation.

- **Biological resources and Biodiversity:** In the old times, catching fish and other aquatic species, hunting and forest product collection generate a considerable income and supplement a important foodstuff source for the local. Since the reservoir constructed, living environment of several aquatic species as well as other living things have been lost. The people in the reservoir zone report that in the years from 2002 to 2003 when the reservoir was newly formed, fish production increased considerably thanks to nutrients and foods for fish supplied by submerged plant. Since 2004 up today, fish production has been decreasing rapidly because there are only some kinds of fish that can adapt themselves to the reservoir's living condition. Estimation shows that fish diversification will be decreased about 60% and some

kinds of rare and valuable fish species as Lang and yellow tortoises lived in gills of streams will be disappeared, thus people's livelihood will be affected both in terms of income and dietary protein.

Medical plants and wild vegetables in the riparian, former developed strongly, collected by villagers will get danger of decreasing due to inundation and surround environment has prevent the development of them.

- **Traditional culture:** As Ede and Bana people often live close to natural stream water sources where they had a lot of closely attached memories from childhood times. Thus moving them to other places will mix their life up. Nevertheless, they are adapting gradually themselves to the living condition in the new places, thus traditional culture is expected not to be adversely influenced.

3.2. Upstream zone:

According to the surveyed data, there are seven ethnic minority groups living in the upstream location of the reservoir, of which Ede people accounted for 80% of the population, is the most crowd, the next position belongs to Bana people. Besides, there are some households belonged to Chiem Thanh, Lac Nay, Tay, Nung and Kinh people. Though many ethnic minority groups live in one village of the region, their livelihoods have a lot of similar aspects based on multipurpose utilization of available natural land, forest and water resources. Agro forestry production and fishery are the main production activities to maintain their life.

Their livelihoods depend on following ecosystem functions and services:

- **Foodstuff production:** in subsistence strategies, crop farming, livestock raising are the main livelihood activities. All living activities depend mainly on foodstuff, which not only helps people have a comfortable life but also is a source that can be exchanged by people to get their substances used daily. The data from interviewing 40 households in the upstream zone have shown that people there are one among objects affected by the project, their production and grazing lands was inundated. Thus, in the recent years their life is rather difficulty. With a little production land, about 2000 square meters of upland per household in average, the poverty rate is increasing annually.

- **Water resource access:** The surveyed data shows that existing of the project doesn't affect the local people in accessing to water resources. River and stream water are still utilized by the local people in daily life and agricultural production. In addition, rivers and streams are utilized for fishing and catching other aquatic species. This is the main source providing food and protein for the local. Since the reservoir formed, quantity of fishing increased considerably from 15 to 20%. However, fishing in future is sustainable or not, fish sources are abundant to what extent and how are fish quality, all these issues depend on many factors and must be studied continuously.

- **Raw material:** Since long time ago, forest has been a friend of people, it provides timbers for house construction, rattans for weaving, medical plants for curing, grass for breeding domestic animals and firewood for cooking. Song Hinh and its streams also provide construction materials such as sands and gravels. Since the constructed reservoir, the forest has been regenerated in some extent. People haven't exploited forest illegally; while always keep a green color for soil.

- **Biological resources and Biodiversity:** Catching fish and other aquatic species, hunting and forest product collection generate a considerable income and supplement a important foodstuff source for the local. Fish catch and forest products collected depend on diversification of aquaculture and riparian ecosystems. According to the surveyed data, the formed reservoir has made living environment of some main species as bird, fish lost, while reservoir environment with a large water level change is instead up. This will reduce

diversification extent of migrating fish species and make fish catching production of the local people decreased.

- **Materials for medicine making:** Ethnic minority people in the up stream zone have a good knowledge on plants, root and bark of tree for making traditional medicine. Those plants grow naturally in forest. This is an important ecological function, which make a great affection to healthcare condition of the local people. However, medical plants grow in forest and along the riverbank that did not suffer inundation of the reservoir, thus they are not affected also.

- **Traditional culture:** Custom and traditional culture take an important role in livelihood activities. According to point of view of the local people, everything in the nature has a spirit, and the humans have to make offerings to these spirits in order to live in harmony with them. Through this religious and traditional culture, future generations will be educated to live harmony with nature, thus ensure sustainable livelihood development. The reservoir did not affect their traditional culture values.

3.3. Downstream zone:

2.1.1.1 Including villages lie in the downstream side of the reservoir, namely Chi Than, Duc Hiep and Tan Lap villages of Duc Binh Dong commune.

All of local people are the Kinh people. Their livelihoods also depend on ecological functions and services as food production, access to water resources, raw material, biological resources, biological diversification and traditional culture. Nevertheless, reservoir's impact to the region is different with those in the reservoir zone.

According to the data surveyed in April 2007, in Duc Binh Dong commune, there are 240 ha of wet rice, of which three villages Chi Than, Duc Hiep and Tan Lap, account for 195 ha.

620 households have cultivation land in a location that brings them a considerable foodstuff source. Thus, the constructed reservoir has had a positive impact. Water of the reservoir has been used to irrigate all cultivation land, helping farmer to practice wet rice cultivation and improving their living standards. However, deposition will occur annually in the reservoir's bottom and will reduce soils fertile of cultivation land indirectly. Besides, daily water level changes due to operation of the powerhouse will increase erosion along the riverbank that make a portion of cultivation land and grazing land lost. Thus, crop's production and foods security will be affected remarkably.

Other influences that the people in downstream have suffered, are capabilities to access water sources and increase income from fishing. The surveyed data shows that there are about 60 households, in the commune (about 10% of the 582 households), taking part in fishing activity in the river. Reservoir with powerhouse have changed current and water quality, decreased fish's foods, and impeded fish's migration. Thus, fish's quantity and fish's species quantity and other aquaculture decreased noticeably. Several fish species as Lang, tortoise, crab are nearly disappeared. Estimation shows that fish production in these villages decreased 70 to 80% from the past. This caused a loss to income of the fishing households and protein sources of all the local people.

Water regulating and supplying: The Song Hinh hydropower reservoir is an important water-supplying source for agricultural production and daily life of people in the region. From the surveyed result, there are 90% of households in this location using well water for living activities. These households reported that during two recent years the ground table had lowered approximately 1 m. Thus, we may be due to operation of the reservoir and reduced flows in the river that caused lowering of the local ground water table that affects people's lives.

4. IMPACT OF PROJECT ON THE LIVES AND LIVELIHOODS OF PROJECT AFFECTED COMMUNITIES:

4.1. Impact of reservoir flooding on the lives and livelihoods of people in the reservoir zone:

Information from the Report on compensation and resettlement of Song Hinh hydropower, May 1997” and the “Report summing up resettlement and people moving work August 2002” has shown:

- Inundating 100% houses of 422 households, 1943 persons belong to 9 villages of two communes Ea Trol and Song Hinh, of which Ea Trol 288 households, 1209 persons and Song Hinh 134 households, 704 persons. All these people must be moved.
- Inundating almost the social infrastructure in these 9 villages, such as community house, primary and secondary schools, commune health center, and much gravity supplied water systems. Besides inundating a water surging dam, which irrigates 30.8 ha of wet rice, inundating 15 km provincial road and 15 km forestry road.
- Inundating 464 graves and grave’s houses in 9 these villages, all graves have to be relocated.
- Inundating 836.4 ha of agricultural land that includes 30.8 ha of wet rice (paddy) fields accounted for 3.7% of total inundated agricultural land, 708.6 ha of swidden land accounted for 84.7% of total inundated agricultural land, 96.9 ha of other annual crop cultivation land accounted for 11.7% of total inundated agricultural land.
- Inundating 0.29 ha of fishpond, accounted for 0.03% of total inundated agricultural land.
- Inundating 16.8 ha of resident and construction land, accounted for 1.97% of total inundated agricultural land.
- Seriously impact the riparian fisheries in Song Hinh and its major tributaries. A great part of aquaculture has disappeared.

Table 3: Estimated % impacts on the livelihood components

No	Kinds of land	Areas (ha)	Ratio (%)
I	Reservoir zone	853.35	100.00
1	Agricultural land	836.52	98.03
	Wet rice	30.8	3.68
	Up land	708.57	84.70
	Other annual crop land	96.86	11.58
	Pond and lake land	0.29	0.03
II	Resident and construction land	16.83	1.97

Source: Report on compensation and resettlement of Song Hinh hydropower, May 1997.

4.2. Impact of dam and reservoir on the lives and livelihoods of the people in the upstream zone:

From the household’s surveyed result in Ly and Trinh villages, Song Hinh and Ea Trol communes, there are only several households who lost their crops and land but damage extent is not large. The greatest impact to the local people is decrease of fish’s species and quantity. Among 15 households interviewed, 13 have said quantity of fish had been decreased about 40% in comparison with before the dam. On average, each household catches about 9 kg per year at present, which is 7 kg lower than compared to before. Especially, some long migrating species such as Lang and yellow tortoise and also crab disappeared. This causes a measurable impact to their livelihood needs derived from the river ecosystem because income from fishing decreased rapidly. Some households gave up fishing to try other economic activities.

4.3. Impact of dam and reservoir operation on the lives and livelihoods of people in downstream zone

4.3.1. Dam and reservoir formation:

- The dam will totally block fish migration and thus has a significantly impact on the downstream catch of migrating species;
- The dam and reservoir will cause sediments to settle in the reservoir and the clear water released will have less nutrients for aquatic life, and alluvial plains rejuvenation; and
- The released water will be colder and deoxygenated, which is also unfavorable for aquatic life and aquatic ecosystem productivity.

The survey of the households at Chi Than village shows the local perception that the constructed reservoir has caused a great impact to fishing actions of the local people. According to villager's estimations, fishing and other aquatic species catching production decreased about 30%. Before the dam, fishing production was 25 kg/household/year, but today it is only 12 kg/household/year. This adversely affected their income and food source that supplied protein for them.

4.3.2. Operation of the power station: Interviewees reported that operation of the powerhouse caused large fluctuations of downstream river water levels. Their view is this has affected their life and their aquatic ecosystems and livelihoods. In general terms:

- Ecology and reproduction of static and migrating aquatic species was affected. Interviewees said that fish and other aquatic species had reduced both in quantity and yield, an estimation of 30%.
- River's bank erosion occurred in Chi Than village damaging some specialized and agriculture cultivated land, affecting about 40 households.
- Decreased discharge and water level during periods of operation of the power plant have impeded transportation and construction material exploitation on the river, and reduced the capacity for supplying water of the river. Interviewees said that a boat of 12 tons tonnage would pass on the river before, but it is impossible today. This affected their income and ability to market goods.
- Decreased discharge and water levels during filling of the reservoir, it was felt, also disrupted the natural process of recharge of the underground water wells because of lower water tables. People reported that in the dry season the lower river water level caused well's water level also lowered more dramatically than before (though studies would need to confirm this, it was the view of local people)
- Another view was less flooding during the wet season could increase the risk of insects and induce an adverse impact on recession agriculture production and daily life. People said that before the dam regulated the river flows farm produce grown along the river's bank rarely caught diseases, but the situation is worse at present. The increase in crop's diseases has affected crop production and it was estimated that yield of farm produce has reduced 20% approximately in comparison with before.

4.4. Impact of construction activities on the live and livelihoods of the people in project land area.

4.4.1 Impact of land acquisition:

Total area to be acquired is 70 ha of agricultural land including wet rice, subsidiary crops and forestland of 45 households of Duc Binh Dong commune. These households were forced to be moved. Up to now, these have been compensated and resettled, but they felt they are lacking land for production and water for their daily life.

Forests utilized by the local villagers are now located in preserve or national defensive forest thus people's opportunity for exploiting, collecting, fishing has been lost or reduced. That

caused not a small impact on people's life. In estimation, cash income of these people has reduced about 40%.

4.4.2. Impact of projection construction workforce and related activities:

During period of approximate 6 years (from 1995 to 2001) constructing the Song Hinh hydropower, a large number of construction workers and related workers have immigrated into the area. These labor forces have caused some adverse socio-economic and cultural impacts on local life, for example:

- social and possibly moral disruption;
- possible increase in sexually transmitted diseases (STD);
- Increase on prices of food products due to increased demand for local foods.
- Extraction of natural resources (as hunting, forest products exploiting) in illegal way had increased and made the local people's resource access reduced. Some villagers said that during the construction period, quantity of collected forest products have been reduced about 52%.
- The influx of the large number of construction and transportation vehicles had impacts on local traffic, and some felt it was also likely to increase traffic accidents.

5. COMPENSATION AND RESETTLEMENT PROVISIONS FOR AFFECTED PEOPLE

5.1. The basic compensation and resettlement principles of the Song Hinh Project include the following:

Vietnam Electricity General Company (EVN) had given compensation and Resettlement Project of Song Hinh hydropower project to Song Hinh District People's Committee in 1991 as set out in applicable Laws. Compensation and resettlement process had been conducted since 1991 to 2001, including 3 stages:

- Stage 1: Since 1990 to 1994, practicing compensation for subsidiary items in order to construct the main project, based on the Resolution No 186 of Minister Council on Compensation for agricultural and forest land when transfer to other purpose utilization proclaimed on 31/5/1990.
- Stage 2: Since 1990 to 1994, practicing compensation based on the Resolution No 90 CP of the Government, in this period compensation work had been carried out rapidly. The Board of Compensation and Resettlement had received assistance from SIDA organization in training and consulting on compensation and resettlement work at district level that had made compensation and resettlement work gained more successful. (see detail in Can we say what level of assistance? Budget?)
- Stage 3: Since 1998 to the time when project ended, compensation based on Resolution No 22 CP issued on 15, April 1998.

Based on Summing up Report on Compensation and clearing plan of the work area of Song Hinh project August 2002, we know that households got compensation and support including:

- Households living in the reservoir zone were moved;
- Households living in the reservoir zone lost a portion of land and other properties, but were not moved
- Households living in the vicinity of the reservoir zone lost a portion of land and other properties, and
- Compensation was provided for loss of public properties.

5.2. Types of compensation and support for resettlement People

Based on the document on compensation and resettlement of Song Hinh hydropower project, as well as consulting local authorities and surveying the affected people, the types of compensation and support for affected people include the following.

5.2.1. Compensation and support for people affected by reservoir and dam, power house:

Report summing up resettlement work shows 11.131 billion VND was paid for compensation and support since 1998 to 2001, including:

- Compensation for lost properties including lost agricultural land and properties on the land.
- Support for moving, in average 2 million VND for household.
- Foodstuff support, in average 13 kg/person/month within a period of 12 months after moving.
- Each household was provided electricity to house and allowance of electrical utilization cost with an amount of 6000 VND/capita per month within 12 months.
- Support for healthcare, education, agricultural extension, garden economy and reclaiming wasteland.
- Compensation for lost infrastructure works and common assets.

According to the survey results from 20 households, all households moved to the new resettlement sites in 1998 received 15 VND million /household in average for lost houses, land, farm produce. Process of compensation was in schedule. They also received foods support of 13 kg/person/month and 2000 m² of agricultural land/household. Besides, they got supports on crop farming, electricity and some households got a loan for animal breeding. Wells had been dug to supply water for households, 6 households used one well. Other public works like people committee house, school, healthcare clinic, Guol house, and road had been constructed in spacious form and better in comparison to the old place. The survey shows most were satisfied with the new resident place. Is that ok to word it like that?

5.2.2. Compensation and support for people who lost land but not house:

These lands are mainly located outside of the reservoir. Interviewees said that they had all received compensation money. Total of compensated money was 986.616 millions VND.

5.2.3. Compensation and support for up/downstream people affected

15 households interviewed in upstream and 20 in downstream reported that:

Almost of people who lived in the up/downstream where their land was inundated little by the reservoir. They had received all compensated money for lost their land and farm produce. At present, their cultivated land is not affected by the reservoir.

(See appendix for summing up compensation work, table 1 and 2)

5.3. Construction work at the resettlement sites:

The resettlement sites of Song Hinh project was constructed on areas of three communes,

- Duc Binh Dong commune:

+ Tan Lap resettlement site constructed for 92 households from Thung I village and 22 households from Thung II village. Construction works include:

School with 4 classrooms, constructed with standard of grade 4, area of each room 40 m².

Health station constructed with standard of grade 4, area 40 m².

Water tank of 5 m³ and latrine constructed with standard of grade 4, 21 m² wide.
20 wells, diameter 1.5 m, 20-25m deep constructed.

4.1 km of electric line constructed.

3.4 km of civil road inside the resettlement site constructed.

+ Resettlement site in Kinh Te village constructed for 38 households from Suoi Dua village.
Construction works include:

School with 5 classrooms, constructed with standard of grade 4, area of each room 40 m².

Water tank of 5 m³ and latrine constructed with standard of grade 4, area 21 m².

Constructed 8 wells, diameter 1.5 m, deep 20-30m.

1.5 km of electric line constructed.

1.2 km of civil road inside the resettlement site constructed.

- Ea Trol commune:

+ Resettlement sites in Duc and Mui villages for 146 households. Following works constructed:

School with 4 classrooms and a library room, constructed with standard of grade 4, area of each room 40 m².

Health station constructed with standard of grade 4, area 40 m².

4.1.1.1 Water tank of 5 m³ and latrine constructed with standard of grade 4, area 21 m².

4.1.1.2 20 wells, diameter 1.5 m, deep 10-20m constructed.

3.9 km of electric line constructed.

4.3 km of civil road inside the resettlement site constructed.

- Song Hinh commune including villages 1, 2, 3 and a portion of Suoi Dua, Kit villages:

Infrastructure construction in resettlement sites in Song Hinh commune had come to an agreement between Song Hinh District People Committee and Song Hinh Project (SHDPC) Management Board on location and scale which had been approved by Provincial People Committee and EGC in resolution 7685 and 7679 EVN/KTDT on 30/12/1998, this including:

- Resettlement site construction for 123 households:

- School with 6 classrooms, constructed with standard of grade 4, area of each room 40 m².

4.1.1.3 - Water tank of 5 m³ and latrine constructed with standard of grade 4, area 21 m².

4.1.1.4 - 14 wells, diameter 1.5 m, deep 10-20m constructed.

- 6.2 km of electric line constructed.

- 2.7 km of civil road inside the resettlement site constructed.

- 5.5 km of road inside the region from provincial road 9B to village 1, mountainous grade five, surface wide of 3m, paved with gravel 25 cm thick.

Total cost for infrastructure construction of resettlement sites:

Approved value is 18.1 billions VND.

Reality used value is 15.3 billions.

5.4. Financing provided for compensation and resettlement:

5.4.1. Budget for compensation and resettlement

All expenditures for investment items were approved by EVN. Budget for compensation and resettlement was given to Phu Yen Province that controlled and provided the required extent and schedule payments over the resettlement period lasting many years.

According to Report on Summing up compensation and resettlement work, August 2002, total budget for compensation and resettlement was about 35 billions VND, of which 7.6 billions for environment management, 12.1 billions for compensation, 15.3 billions for resettlement, and 15.3 billions for infrastructure construction. Can we put this in a simple table?

On average, 58 millions VND had been spent for compensation and resettlement for resettled households.

5.4.2. Budget Management and Disbursement

Song Hinh hydropower project management board (PMB) in collaboration with departments of Song Hinh district as Board of Resettlement and Siderization, Industrial Department, Agricultural Department and authorities at communal level conduct payment for the affected people. These organizations had practiced payment as follow:

- Counting money and divide them into portion and then distribute to each household under monitor of PMB and bank.
- Giving directly money to affected people hands.
- Besides, in collaboration with SHDPC and district bank coming to the money-distributed points to encourage, agitate people saving in the banks.

Interviewees reported that payment process had been practiced transparent and openly, not any difficulty to people.

6. TENSIONS AND CONTROVERSIES ARISEN IN THE AFFECTED COMMUNITIES RELATED TO THE PROJECT.

Based on the results consulted the local authorities and interviewed affected people, there are several tensions related to the project as follows:

- Because limited land in the resettlement sites, it is impossible to keep family structure when arranging resettlement people that caused tensions among resettled people. Resident land was small, only 100 m²/household without gardens, located closely together. That made sanitary condition in the resettlement sites worst.
- 20 interviewed persons had reported that people got tensions when they received their resident land because Project Management Board had not let them leveling their land surface themselves but assigned to a construction unit in the province and works the unit had done, did not meet their aspiration.
- 75 % of the interviewed households reported in tension way that they lost a lot of land by the project but at the resettlement site, they received only 2000-3000 m² of agricultural land per household in average. Al most of households did not have wet rice land, assigned forestland thus most of them did not ensure foods for the entire year.
- Consulting some households in the resettlement sites shows that at present, one of another tensions is fresh water shortages in daily life of the households. According to these, when arranging resettlement, Project Management Board had supplied them with dug wells instead of gravity run water system. These dug wells often depleted in the dry season.

7. SOCIAL ORGANIZATIONS ACTIVE IN THE PROJECT AREA PROMOTING LOCAL DEVELOPMENT AND SUSTAINABLE RESOURCE MANAGEMENT:

- Rapid Rural Appraisal Program with participation of people (RRA) applied for resettlement and compensation work was conducted from May 1996 to October 1996, thanks to assistant of the Swedish Government's SIDA organization.

- Since 2001 when the Song Hinh hydropower resettlement project ended, under the guidance of Provincial People Committee, District Agriculture Extension Center and Siderization Board have introduced and provided new varieties of crops, trained agricultural extension technique for the resettled people, people living in the vicinity of the reservoir who lost their land but not houses. At present, in each commune there is a agricultural extension staff. Was this only in the resettlement area. Do you know if similar support was given to people on the reservoir perimeter who lost land but not houses?

- Production forest development program (Mango tree in Thung village) was implemented by the District Siderization Board in 2003. Program has trained households with technique growing mango. These households have received and grown plants. Living plant rate was high, about 70% but it is not harvested at present.

- Credit program of Song Hinh District provided loans to poor people to develop raising cattle in Song Hinh, Duc Binh Dong, Ea Trol communes. This program lasted 3 years from 2003 to 2006 and achieved good result.

- Besides, in the region, there are organizations as Youth Union, Women Association, Peasant Association and Authority and Party organization. These take part in local development and local resources management activities. According to the surveyed data, District Settlement and Fixed Cultivation Board and District Agricultural Extension are the most successful organizations in projects improving people's living standards.

8. THE GOVERNMENT BUDGET FOR LOCAL DEVELOPMENT AND PROGRAMS IMPROVE LIVELIHOODS AND ACCESS TO NATURAL RESOURCES:

The government budget for local development consists of assistance budget funded through National Target Programs for infrastructure development: transportation roads, school, clinic; agriculture development, agricultural extension training and social service access improvement: healthcare, education. Followings are the programs:

- Program 133 (National Target Program for Hunger Eradication and Poverty Reduction) and the interconnected Program 139, which guarantees all poor households with free health care and free education for children.
- Program 134: Policy supporting production land, resident land, house and fresh water for ethnic minority poor households. Since 2002 to 2004, the program supported Duc Binh Dong commune to construct houses for several poor households.

The survey result shows that since 2006 the 133 Program have been implemented in the project area effectively, especially in Duc Binh Dong commune. Thanks to this program, 30 poor households of Thung village were provided an assistance amount of 360 MVND to rebuild houses, getting rid of leaking and dilapidated thatched housing. On average each household was received 6 MVND. In addition, the District Settlement and Fixed Cultivation Board is planning to construct water supply system at Thung and Binh Giang villages with an amount investment of 1.2 BVND funded by 133 program to supply water for 306 households in year end 2007.

- Reservoir fishery program funded by SIDA is managed and implemented by Phu Yen Youth Union. In 1999, Song Hinh Reservoir Fishery Management Board (SHFMB) was established belonging to Phu Yen Youth Union to manage fishery in the reservoir. This Board has run for

8 years. In the beginning years, reservoir fishery industry was effectively developed and brought significant economical benefit. Then due to fish productivity decrease, the economical efficiency of fishing has reduced. At present, there are about 500 fishers use the reservoir, among them only 50 professional fishermen registered with the SHFMB. Almost registered fishermen come from other areas. Thus according to local people the reservoir fishery program has not lead to a significant improvement in income or protein of people living around the reservoir, except for the decreasing off fishing families.

9. COMMUNITY-BASED ACTIVITIES WOULD BE FUNDED AND STRENGTHENED IF ADDITIONAL FINANCING WERE MADE:

Based on the survey results, livelihoods restoration and health and education services are the priority of the local people. Thus, if additional financing were made available, the following community-based activities need to be funded or strengthened:

- Investment to construct some hydraulic dam so that resettlement people could have wet rice land for long-term development and ensuring foods security.
- Issues land use right certificates to male and female heads of households for the permanent agricultural lands, and to the village for the communal agro forestry lands.
- Agriculture and livestock extension services will include extension knowledge on upgrading traditional skills and appropriate new skills in farming and husbandry.
- Public Forestry Development and Management Program.
- Program for developing Community Health and Education.

Also there were differences between the people in the different impact zones preferred:

- In reservoir, resettlement and project land zone, 80-100% interviewed people wanted to see irrigation works invested for wet rice production, loans provision for livestock and crops farming development with discount rate and agro-forestry extension strengthened.
- In Upstream zone, 85-100% interviewed people wanted to see Public Forestry Development and Management Program, Credit program for loans provision to develop livestock and crops farming with discount rate and agro-forestry extension activities strengthened. Especially they expressed their wishes to electrical service access and healthcare, education service improvement.
- In Downstream zone, 90-100% interviewed people wanted to see agro-forestry extension service, vocational training for job changes, and electrical, healthcare and education services improvement funded and promoted.

Local people prefer Communal Authority, District Settlement and Fixed Cultivation Board taking part in distributing that budget. In addition, almost women in the area wish to participate in these activities to ensure woman's interests. Women have to be promoted for active participation in training activities and all decisions regarding resource allocation and management activities.

Regarding approaches, the local people want to participate in almost activities relating to them, from planning to implementing stages and have entitlements for monitoring - Down Top Approach.

Conclusion

Song Hinh hydropower project will bring great benefits for the country, it not only generate electricity merging to the national electricity network but also supply water to irrigate 5,500 ha of wet rice. Beside these benefits, the project will also cause adverse impacts on the lives, livelihoods of the local people and ecological system in the area.

The compensation and resettlement program realized in the context, in which Vietnam didn't have concrete policies on compensation and resettlement and opportunity to access policy frameworks? guiding compensation and resettlement of international organizations as Asian Development Bank. Thus benefits of the affected people of the project was not ensured, especially the right to have long-term livelihoods restoration programs and the right of upstream and downstream affected people to be recognized.

However, with exerting all strength of authority levels and affected people, up to now, compensation and resettlement work of the project have been completed and realized strictly. The people in the reservoir zone stabilized their life in the resettlement sites where infrastructure system (road, electricity, fresh water, school, healthcare station) have been invested rather well. People's knowledge also have been improved.

It is evident there are some permanent socio-economic losses that can be offset by beneficiary-defined investments funded by a revenue sharing formula or other sources. Project affected people can be obtained benefits from 3 following types of benefit sharing:

- Sharing project service

Resettlement sites were been supplied with electricity but quality of service is not good: high electricity price, disruption of electricity supply (not available). Communities living along the reservoir perimeter also got electricity service but in more difficulty condition as they had made contribution for wiring connection and other accessories cost. They did not got financial assistance from the project as resettled people did. Thus, poor people could not get electricity utilization. In the future, compensation and supports should be provided for the affected people living around reservoirs and in the up and downstream so that they can access to better electrical service.

- Revenue Sharing:

Resettles have faced many difficulties in the new resident places; the most difficulty is how to stabilize their life. It is quite clear that resettlement and compensation regulation applied for Song Hinh hydropower project at that time was not ensuring a good life for them in a long term period, just a temporary measure. The project should extract a portion of its revenue for the resettled people as well as the affected people in the upstream and downstream zones to help them get an additional income and improve their living standard for a long term. They should be entitled to participate in all community-based activities aimed at long-term livelihood restoration as mentioned in section 9.

- Non-Monetary Benefits: Almost Project Affected People were interested to see new entitlement replace those that had been lost. In fact, the resettled people in reservoir zone were provided entitlement replace all common property Infrastructure such as transportation road, community hall, health care center, water supply system...Regarding affected people in downstream and upstream zones, they wanted to be provided assistance entitlement for infrastructure system improvement and community forest development.

Key References

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2. Reports on resettlement compensation and plan for Song Hinh hydropower project, issued in 1992-1999, Song Hinh district.
3. Work shop on energy, resettlement and sustainable development, Vietnam Union of Science and Technology Association, March 2007.
4. Report on Socio-Economy Development of Song Hinh commune, 2005-2006.
5. Report on Socio-Economy Development of Ea Trol commune, 2005-2006.
6. Report on Socio-Economy Development of Duc Bing Dong commune, 2005-2006.

Annex

Table 1: Compensation for house, animal's shelter, plant, land and soil pit 5

No	Items	Approved Decision	Approved value	Liquidated value
1	Compensation for assets, transit and foods supports.	2515 ĐVN/KTDT	1,793,301,000	1,698,242,310
	Thung 1 hamlet		977,233,952	977,233,952
	Thung 2 hamlet		301,013,383	301,013,383
	PlanThung 2 hamlet		25,685,367	21,439,247
	New economy 2 village		435,731,794	344,919,148
	Kinh people in reservoir		53,636,623	53,636,623
2	Compensation for assets, transit and foods supports.	2651 ĐVN/KTDT 09/6/1998	1,553,347,000	1,553,347,000
	Mui village		930,166,326	930,166,326
	Duc village		623,181,110	623,181,110
3	Enough support 15 million VND/house	2992 ĐVN/KTDT 27/6/1998	2,841,607,000	2,922,775,808
	Thung 1 hamlet		538,305,374	538,305,374
	Thung 2 hamlet		123,789,529	123,789,529
	New economy 2 village		197,212,820	92,986,815
	Duc village		461,219,257	461,219,257
	Mui village		508,785,111	508,785,111
	Kinh people in reservoir		26,262,777	26,262,777
	Village 1		113,720,601	132,691,145
	Village 2		220,599,143	264,153,632
	Village 3		231,070,478	269,721,478
	Suoi Dua village		228,126,996	248,300,451
	Kit village		218,200,229	245,560,509

4	Compensation for assets, transit and foods supports.	5279 DVN/KTDT 14/10/1998	1,476,950,373	1,456,868,945
	Village 1		245,362,987	245,362,987
	Village 2		358,056,189	340,666,134
	Village 3		259,229,257	259,229,257
	Suoi Dua village		257,941,362	255,250,362
	Kit village		356,360,587	356,360,214
5	Compensation and support for 10 Kinh house in reservoir	354 EVN/KTDT 23/01/1999	27,332,000	27,332,000
6	Compensation for soil mine	944 NL/KTKH-3 22/11/1994	5,376,808	5,376,808
7	Compensation for reservoir land	5962 EVN/KTDT 19/10/1999	1,825,962,070	1,820,083,470
	Thung 1&2 villages		499,627,650	499,627,650
	Duc hamlet		365,580,050	365,580,050
	Mui hamlet		523,033,450	523,033,450
	Village 1		49,030,200	49,030,200
	Village 2		81,732,800	81,732,800
	Village 3		124,033,300	124,033,300
	Suoi Dua village		93,787,050	93,787,050
	Kit village		89,137,670	89,137,670
8	Compensation for plant	5708 EVN/KTDT 29/11/2000	142,022,000	
	Thung 1 and 2 hamlets		57,984,000	57,984,000
	Duc and Mui hamlets		84,038,000	83,724,000
9	Compensation and additional support for 48 house	5289 EVN/KTDT 25/9/2001	527,156,000	518,379,000
10	Compensation for items outside the reservoir		1,205,611,770	986,616,091
	Summery		11,398,666,021	11,131,043,432

(Source: Report summing up compensation and resettlement work of Song Hinh project, August 2002)

Table 2: Compensation for subsidiary items outside the reservoir to serve construction work				
No	Items	Approved Decision	Approved value	Liquidated value
1	Compensation for farm produce	1991		77,740
2	Road fro Da Mai to power house	184 NL/KTKH3 17/10/1992		890,000
3	Road to Lac My bridge			2,277,000
4	Road to sand mine 18			1,638,000
5	Electricity line Tuy Hoa-Hoa Dinh		70,000,000	33,883,173
6	Supplement zone 1			4,398,612
7	Material zone		36,437,247	9,370,923
8	Electricity line Da Mai-Main dam		131,575,000	26,674,200
9	Duc village	3689 ĐVN/KTDT 7/11/1995	78,606,640	46,963,950
10	Road to soil mine 5		26,864,234	21,666,978
11	Road to sand mine Duc Binh Dong	3417 ĐVN/KTDT 21/8/1996	5,148,428	5,148,428
12	Road link dams		5,194,428	5,194,428
13	Road inside resettlement sites		24,646,000	24,646,000
14	Police station		569,277	569,277
15	Electricity line	1247 ĐVN/KTDT 11/4/1997	930,000	930,000
16	Thung village resettlement site		1,939,613	1,939,613
17	Worker's house		16,803,613	4,407,000
18	Electricity line main dam-hamlet 1		83,378,847	83,378,847
19	Duc village resettlement site	4418 ĐVN/KTDT 14/10/1997	51,731,494	51,731,494
20	Eakrong hydrological station		8,869,750	8,869,750
	Supplement dam		368,000	386,000
	Compensation for crops,		16,387,255	16,387,255

	land BT2			
21	Exclaim hy. station	5132 EVN/KTDT 10/10/1998	3,308,649	3,308,649
	Compensation for crops, land KT2		28,807,165	28,807,165
22	Compensation for spillway 1	1241 EVN/KTDT 20/3/1999	141,402,244	139,671,915
23	Compensation for spillway 2	5969 EVN/KTDT 19/10/1999	38,623,872	38,623,872
	Compensation for Lac Dao bridge		13,929,362	12,594,674
24	Compensation for spillway 4	5948 EVN/KTDT 7/12/2000	18,507,387	18,107,387
25	Electricity line Tuy Hoa- Song Hinh	1318 EVN/KTDT 31/3/2000	1,169,280	1,169,280
	Compensation for provincial road 9B		48,228,806	40,719,302
	Electricity line 110V Tuy Hoa-Song Hinh	5948 EVN/KTDT 7/12/2000	10,045,000	10,045,000
26	Electricity line Power house-Da Mai	5708 EVN/KTDT 29/11/2000	20,496,179	20,496,179
27	Compensation for Thung village resettlement.	2296 EVN/KTDT 25/5/2000	21,644,000	21,644,000
28	Compensation for spillway 4		300,000,000	300,000,000
	Summing up		1,205,611,770	986,616,091

(Source: Report summing up compensation and resettlement work of Song Hinh project, August 2002)

Itinerary

No	Time	Location	Content
1	11/4/2007	Transit Phu Yen- Song Hinh	To work with Song Hinh district leader
2	12/4/2007	Song Hinh Distinct	To work with district sidenterization dep.
3	14/4/2007	Eea Trol commune	Socio-economy survey, interview at Eea Trol commune
4	15/4/2007	Eea Trol commune	Socio-economy survey, interview at Eea Trol

			commune
5	16/4/2007	Song Hinh commune	Socio-economy survey, interview at Song Hinh commune
6	17/4/2007	Song Hinh commune	Socio-economy survey, interview at Song Hinh commune
7	16/4/2007	Duc Binh Dong commune	Socio-economy survey, interview at Duc Binh Dong commune
8	17/4/2007	Duc Binh Dong commune	Socio-economy survey, interview at Duc Binh Dong commune
9	18/4/2007	Dong Giang district	To work with Dong Giang district leader
10	18/4/2007	Dong Giang district	To work with Dong Giang district leader

Appendix L: Rapid Appraisal Report on the A'Vuong Project – Component 2 of the TA

Prepared by the TA Local Consultants - Institute of Energy Science and National Institute of Agricultural Planning and Projection

June 2007

Part 1: Introduction and Project Description

1. Introduction:

The Government of Viet Nam is collaborating with the Asian Development Bank (ADB) on a Technical Assistance Project entitled Benefit Sharing Mechanism for People Adversely Affected by Power Generation Projects in Viet Nam (TA 4689-VIE). The TA aims to develop draft guidelines for long-term benefit sharing suited to conditions in Viet Nam and subsequently prepare a work plan to pilot test the draft guidelines.

The services of a sub-consultant with expertise in environment, social and rural livelihood assessment were engaged by ERAV and ADB to conduct rapid appraisals of three hydropower projects according to a standard format. The rapid appraisals look at hydropower projects at different stages of development (planning, implementation and operation) and will provide information needed to prepare the draft guidelines. This first rapid appraisal report covers the 160 MW Song Bung-4 hydropower project, which is currently at an advanced stage of planning. The two other hydropower projects are the 210 MW A'Vuong project (under construction) and the 60+70 MW Song Hinh hydropower project (an operating project).

2. Approach:

Consistent with themes of equitable and sustainable development and integrated water resource management principles, a broad definition of project affected is adopted for the rapid appraisals. The assessments will consider project-affected communities upstream of the dam, in the reservoir and powerhouse areas and the impacted communities downstream. This wider definition of project affected people reflects the fact that dams have large environment and social footprint in the basin they are situated and can impact adversely on ecosystem functions and services and the livelihoods they support for all these groups (e.g. food, fiber, water resource access...). What is also important is to identify the relative scale of the impact of the dam on the livelihood and welfare of each group so that benefit sharing can be apportioned accordingly.

In part A, we started our work with desk study to collect key documents, relevant document and information on compensation, resettlement, and environment management and livelihood components of the A'Vuong Project. After that, the field survey for A'Vuong consisting of structured interviews and questionnaire applying the method approved was undertaken. Those focused on responding to key questions that will form the structure of rapid appraisal.

Set of key questions include:

- 1- What is the socio-economic profile of the communities that have been/will be affected by the dam, how their livelihoods are derived.
- 2- What ecosystem functions and services do the livelihoods of the PAP depend on and to what degree?
- 3- How and to what extent are/will the lives and livelihoods of project-affected communities is impacted? What impacts do the affected communities view as the most significant concerns?

4-What compensation and resettlement provisions were provided or are expected to be provided for the project affected communities? How was financing provided for compensation and resettlement and how many years did/will these last. How significant are these tensions or concerns?

5-What tensions or controversies have arisen in the project-affected communities that related to the dam, or ones anticipated? How significant are these tensions or concerns?

6-Which social organization is active or soon to be active in the project area promoting local development and sustainable resource management? Which organizations are viewed as having the most success in improving livelihoods of different groups of people (e.g. Woman's union, youth union, farmers union, NGO activities)?

7-What is the government budget for rural development in the area? What other programs significantly support efforts of the affected communities to improve livelihoods, improve access to natural resource and sustainable manage local resources (e.g. Program 135)

8-If additional financing were made available to project impacted communities, what community-based activities they would like to see funded or strengthened, and what organizations they would prefer involved in delivery of additional support. What approaches would they like that are different from at present?

Methodology and sample size:

THE METHODOLOGY USED TO CONDUCT THE STUDY IS RAPID RURAL APPRAISAL (RRA).THE STUDY TEAM FACILITATED THE PARTICIPATION OF LOCAL AUTHORITIES AT THE COMMUNE AND VILLAGE LEVEL AND THE VILLAGER IN ALL ASPECTS OF THE STUDY.

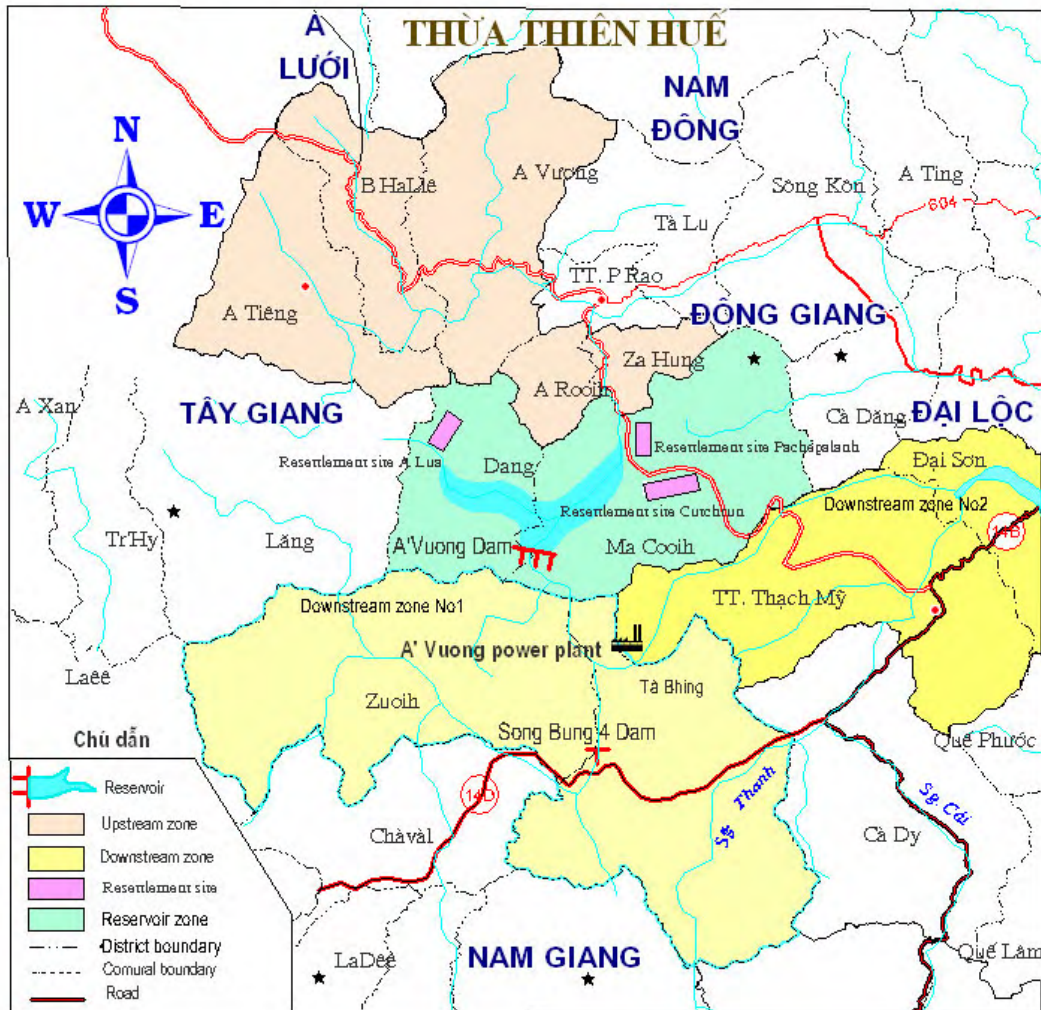
Questionnaires designed by the surveyed team and approved by ERAV, including three kinds, 120 samples for the project, used to survey the following locations:

Total of interviewed people was 120, of which:

- Number of interviewees in the reservoir displaced to resettlement site and the host people (in Ta Reng villages): 40 people
- Number of interviewees in the vicinity of the reservoir and upstream of the dam (in the remaining of A So village): 70 people
- Number of interviewees in the resettled community: three people in Ta Reng village
- Number of interviewees in the host community: three people in A So village
- Number of interviewees in the vicinity of the reservoir and upstream of the dam communities: four people in A So village.

The study team includes six persons, out of which three from NIAAP and three from communes (they are the chief of secretariat or president or secretary of communal people's committee, who will take the responsibility on translating, leading the way or gathering villagers). In the field, the team was divided into three groups; every group includes one staff from NIAPP and 1 to 2 persons from local communes. Interviews using questionnaires conducted at household's houses, Guol houses or communal people's committee houses. In each interview, the team made sure that there was enough opportunity for villagers to talk freely, to ensure that we did not miss important information we did not cover in the questionnaire. The interviewed person was head of households for cards No 2 and No 3, old men, communal staff or head of village for cards No1. There was an equal sample of men and women. This was important because women sometimes gave different answers from men and often remembered more details about what happened in the village. At the end of the day, the team worked together and tried to draw lessons for the next day so that improvements could be made. Besides interviewing, direct observation was used during the study.

SKETCH OF STUDY AREA LOCATION A'VUONG HYDROPOWER PROJECT



3. General Description of A'Vuong hydropower project:

The A'Vuong Hydropower Project are being built on A'Vuong River, a tributary of Vu Gia River, in Ma Cooih and Dang communes of Dong Giang and Tay Giang mountainous districts of Quang Nam Province, in Central Vietnam. Construction of A'Vuong Hydropower Project started in 2003. The Dam is located on A'Vuong River, about 10 km upstream of the confluence with Bung River and 80 km west from Da Nang. The A'Vuong Hydropower Project comprises an 80 m high RCC dam with a gated spillway located in the central part of the dam. The waterway comprises a 5.3 km long headrace tunnel and a 520 m long surface penstock. The powerhouse will be constructed in an excavated pit and equipped with two Francis units of 105 MW, totaling 210 MW. The Project has a fairly large reservoir with an area of 9 km² that will provide an active storage of 343,55 Mm³, corresponding to some 21% of the mean annual inflow of 40 m³/s.

Semi-flooded zone (causing by draw down of the reservoir between the range of 380 and 340 masl - 40 meters) belong to Macooih and Dang commune. Because topography is steep and the reservoir formed along the A'Vuong River, Seasonal-submerged zone is not remarkable, only about 200 ha, of which 40-50 ha can be exploited for one crop rice, the rest mainly covers of vegetation or bamboo forest with poor productivity reserve, some bush and grass

plots. Using seasonal-submerged zone for agricultural production remains a problem that need to be study more. Thus, impacts of raising and lowering water level of the reservoir on local development are not important.

The total estimated cost of A'Vuong Hydropower Project is 253.80 million USD. Construction was projected to last five years from 2003 to 2008 with commissioning during the second half of 2008.

The main features and components of A'Vuong Hydropower Project are summarized in Table 1 below:

Table 1: Main Features and Components of A'Vuong Hydropower Project

No	Main Features	Unit	Quantity	Main Components	Unit	Quantity
1	Catchment Area	km ²	682	Dam Type	-	RCC
2	Mean Annual Flow	m ³ /s	39,8	Dam Height	m	80
3	Full Supply Level, FSL	m,a,s,l	380	Crest Length	m	240,16
4	Reservoir Area at FSL	km ²	9,09	Crest Level	m,a,s,l	383,4
5	Minimum Operating Level, MOL	m,a,s,l	340	Spillway Gates	Nos	2
8	Reservoir Total Storage	Mm ³	343,55	Tunnel, Length	m	5276
10	Spillway Design Flood	m ³ /s	5730	Tunnel Diameter	m	5,2
11	Maximum Tail Water Level	m,a,s,l	86,3	Penstock, Length	m	517,3
12	Normal Tail Water level	m,a,s,l	58	Penstock, Diameter	m	3,8
13	Design Head	m	300			
14	Total Turbine Design Discharge	m ³ /s	78,4			
15	Installed Capacity	MW	210			
16	Annual Average Energy Potential	GWh	815			

(Source: Environment Impact Assessment Report)

Part 2: Study result of Appraisal

This section presents the study result on socio-economic profile and livelihood components of Project Affected Communities and other adverse impacts caused by A'Vuong hydropower project related to 8 key questions required by TA Project based upon the synthesis of assembled available studies on A'Vuong hydropower project and result of project affected household and community survey and rapid appraisals.

1. Scale of impact of A'Vuong hydropower project:

The A'Vuong Hydropower Project will produce electricity to cover the increasing demand in Central Vietnam, and sustain the economic growth in the region, by utilizing the head created by the dam and the water conveyance system. To accomplish this certain infrastructure facilities are constructed as follows:

- A dam on A'Vuong River to create the reservoir.
- Structures to divert the water from the reservoir to the power station.
- A power station with the necessary facilities to generate electricity, some 13 km downstream of the dam.
- A transmission line to connect the power station with the national grid.
- Road works to connect the project site and resettlement areas to the national road system.
- Auxiliary areas to enable construction and operation of the Project.

A'Vuong hydropower project is located in Dong Giang and Tay Giang district of Quang Nam province. According to the feasibility study and environment impact assessment, the entire reservoir and site construction are located within two communes of Ma Cooih in Dong Giang district and Dang commune in Tay Giang district.

In 2003, Hydropower Management Board No 3 (ATD 3) contracted the Water Resource and Rural Development Centre (WRRDC) in Quang Nam province to undertake a field investigation and then to prepare Resettlement and Compensation Plan for A'Vuong hydropower project. WRRDC focused their work only on the reservoir and construction sites. No impact assessment was carried out for the upstream and downstream zones.

In 2004, EVN collaborated with Power Engineering Consultation Company No 2 (PECC2), assisted by specialists from Geology and Environment Institute of Viet Nam Geology Union, Geography and Biological Resource Institutes to prepare Environment Impact Assessment (EIA) Report. The EIA report they prepared refers to various impact assessment of the project on socio-economic and environment aspect, but insufficient assessment of the scale of the impact on the upstream and downstream zones and how people living in these zones are adversely impacted?

According to our point of view, it may be due to limitation in time and finance, EIA have just studied one specific group of project-affected people, namely those in reservoir zone. That is the way had been done for many hydropower projects in Vietnam up to now. Of course, affected people are not only relocated people, those who live close the inundated zone or in up and downstream zone are affected by the project also. Thus, they must be benefited from the project, even though less than those who suffer direct impacts of the project. To study impacts of a project in three zone, inundated and vicinity zone, up and downstream zone must be done to specify all losses that people could be suffered and then to compensate for them. It will be a new aspect in compensation for hydropower project affected people in Vietnam.

The scales of impact of A'Vuong hydropower project are as follow:

- **Reservoir inundation and construction land:** affect 8 villages of Ma Cooih communes in Dong Giang district and Dang commune in Tay Giang district. Total households affected are 380, of which 330 households in 7 villages had to be resettled, 50 households in 1 village only lost their land. Moreover, according to EIA report, a large area of construction land such as soil, sand quarry, disposals and a part of auxiliary areas to enable construction are located in the future reservoir inundation.

Table 2: Summary of Impacted Persons by A'Vuong Hydropower Project (2003 data)

No	Project Impacted Area	No of Villages	Total households		Physically relocating (houses)		Land/Livelihood impacts		Notes
			Total	impacted	HHs	Persons	HHs	Persons	
	Total	8	380	380	330	1572	380	1792	
I	Dong Giang district	5	307	307	257	1142	307	1362	
	Ma Cooih commune	5	307	307	257	1142	307	1362	
1	A So village	1	69	69	19	25	69	245	
2	A Zal village	1	64	64	64	302	64	302	
3	A Đêng village	1	49	49	49	227	49	227	
4	Đhor Reng village	1	70	70	70	333	70	333	
5	Trơ Gung village	1	55	55	55	255	55	255	
II	Ta Giang district		73	73	73	430	73	430	
	Dang commune	3	73	73	73	430	73	430	
1	A Lua commune	1	52	52	52	277	52	277	
2	Ka La commune	1	21	21	21	153	21	153	
3	Zlao village	1	0	0	0	0	0	0	Loss road

(Source: Resettlement and Compensation Report, 2003)

On the above table, among 380 affected households, 330 households who lost their land and property had to be relocated, 50 households only lost their land.

- **Upstream zone:** There are five communes located in the up stream zone, namely Za Hung and A'Vuong communes, Dong Giang district, A'rooih, B.Hale, and A'tieng communes, Tay Giang district. Resident people in the area are the Co Tu and Kinh people with population of 7160 persons in 1724 households. Of total population, the Co Tu ethnic minority people account for a majority with 6235 persons (87%), the remaining is the Kinh people with 925 persons (13%).

Erosion products on A'Vuong catchments normally are soil, stone, gravel and sand and specially sediment load. These products store some chemical toxic, that create poison to environment. Using formula of Smith to estimate erosion on A'Vuong catchments give the following results:

Table 3: Erosion rank on A'Vuong catchments

Rank of erosion	Symbol	Quantity of erosion (Tons/ha/year)
Very strong erosion	V	>250
Strong	IV	150-250
Medium	III	100-150
Weak	II	50-100
Very weak	I	<50

Total soil erosion caused by rain on the A'Vuong catchments is about 13,357,160 tons/year. According to the calculated result of the National Geographic Institute, potential erosion on the catchments is rather large. If all the cover plants are deleted only soil remains, total soil loss should be 598,543,900 tons/year, which equal to 45 times of existing erosion. Thus forestry will be the most effective measure to increase water sources to river, reservoir and prevent erosion to lowest extent, that mean to increase the life of the reservoir.

- Downstream zone:

The downstream zone was divided into two zones: downstream zone 1 and downstream zone 2:

+ The down stream zone 1 consists of two communes namely Zuoih and Ta Bhing in Nam Giang district.

+ The down stream zone 2 consists Dai Son commune of Dai Loc district and Pa Dau village in Thanh My town.

As designed, water from the A'Vuong Reservoir will be diverted, via a headrace tunnel and an underground penstock, to a power station located on Bung River some 13 km downstream of the dam and then discharge to Bung River. According the EIA report prepared by EVN in 2004, in the stretch river between A'Vuong dam and the tailrace canal of power plant (some 13 km), the river is still steep, with rocky shores. The covers of vegetation only consist of bamboo forest with poor productivity reserve, some bush and grass plots. In this 13 km diversion zone, there are not any river flow occur. Downstream zone of tailrace of A'Vuong power plant also belong to the downstream zone affected by Song Bung 4 hydropower project to be built on Bung River.

2. Socio-economic profiles of Project Affected Communities:

2.1. RESERVOIR AND PROJECT LAND:

According to the study on resettlement and compensation plan of WRRDC, the entire reservoir and site construction area are located within two communes of Ma Cooih in Dong Giang district and Dang commune in Tay Giang district. Following is socio-economic profiles of these communes.

2.1.1. Population and ethnic minority:

According to the survey result of National Institute for Agricultural Planning and Projection (NIAPP) in April 2007, total population of the two communes of Ma Cooih and Dang was 3010 persons in 678 households. Of total population, the Co Tu ethnic minority people account for a majority with 2961 persons (98%), the remaining is the Kinh people with 49 persons (2%). The average size of household is 4.44 persons.

Total population of five villages affected in Ma Cooih commune was 1362 persons living in 307 households. Of total population, the Co Tu ethnic minority people account for 99%, the remaining is the Kinh people who live here for small trade or business.

Total population of 3 villages affected in Dang commune was 470 persons living in 73 households. Of total population, the Co Tu ethnic minority people account for 98%, the remaining, some 2% are the Kinh people.

Some criteria on population and ethnicity are presented in table 4.

Table 4: Some criteria on population and ethnicity of affected communities

Criteria	Unit	Ma Cooih commune	Dang commune
I. Entire commune			
1. Number of households	Households	350	328
2. Number of persons	Persons	1558	1452
- Co Tu people	Persons	1535	1426
- Kinh people	Persons	23	26
3. Population density	Persons/km ²	7	15
4. Rate of birth	%	31.8	36.1
5. Rate of death	%	4.6	7.1
6. Population growth rate	%	27.2	29
II. Reservoir and project land alone			
1. Number of households	Households	307	73
2. Number of persons	Persons	1362	430
- Co Tu people	Persons	1339	411
- Kinh people	Persons	23	26

2.1.2. History and traditional culture of Co Tu people:

Co Tu people in Ma Cooih commune are native people who have been living here for many generations. However, village locations have been changed regularly due to bad harvests, epidemic diseases among people or cattle, lack of good cultivation land, village fire and war incidents. The population living together as a village has always been rather small and based on kinship. Village is a dominant unit and run by headman and patriarch. People have rarely had any contacts outside the restricted geographical area and their own ethnic minority group. The social relations are governed by their common customs and rules.

Co Tu are patrilineal and patrilocal, meaning that descent of children follows father's lineage and name, and that wife moves to live in husband's family and village. Only men can own and inherit property in the patrilineal Co Tu system. Wife moves to husband's family and owns only the traditional woven textiles she has to bring with her to her new home.

According to Co Tu people's worldview, in the mid-world everything in the nature has a spirit, and the humans have to make offerings to these spirits in order to live in harmony with them. Spirit of rice, spirit of water, spirit of thunder, spirit of hunting, and souls of the dead are the most important spirits to be respected. Thus, many calendar traditions, offerings relating to their lives and livelihoods are kept alive.

Co Tu village structure has a basic model of a concentrated village with either Guol house in the middle and other houses around it in an ellipse, or Guol house on the border of the village and residential houses around it along a main "road". The community house, called "Guol" house is the heart of the cultural and social life in a Co Tu village. Guol house is the symbol of the village, its spirit and strength. Therefore all important spiritual community items, like a spiritual gong (a special kind of metal drum), spiritual drum, spiritual wine jar, buffalo's horn after buffalo-stabbing festival, etc are preserved there.

Regarding gender division of labor in livelihood activities: Both men and women are involved in the subsistence economy consisting of different activities connected to agriculture, forestry, fishery and livestock breeding. There is a division of the tasks between

men and women, which makes the workload of women both time-wise and in responsibility heavier than that of men. In contrast, men have to do heavier works.

2.1.3. Health and healthcare situation:

In Ma Cooih commune, there is a centre of healthcare (CHC) in A So village serving all the six villages in the commune. The CHC has capacity for preventive health care and for treating the most common diseases like upper respiratory infections, diarrhea and itching skin. Its capacity to treat serious cases is however very limited due to lack of equipment and medication.

The most common health problems in Ma Cooih and Dang communes appear to be respiratory infections during the dry season, including flu, bronchitis and pneumonia, and digestive diseases. Another health problem is diarrhea, goiter in children, tuberculosis and gynecological diseases in grown up people.

Child malnutrition rates are very high: in Ma Cooih Commune among approx 45% and in Dong Giang District 32% of the children. All children are vaccinated within the national child immunization program. Children under five years also receive free extra calcium and vitamin B.

2.1.4. Education situation:

Education level among the villagers in the project-affected area is low. According to the household survey result, of total household headman, illiterate people account for 40% (36 persons), elementary level education people account for 50% (66 persons), secondary level education people account for 10% (8 persons). There is any person having upper secondary education.

There is a village school in each village in Ma Cooih Commune with grades 1-2. Almost all children continue at the commune school in A So village after grade 2 in the home village. The enrolment rate is rather low, in some village teachers have to go to the children’s family to encourage them for schooling.

2.1.5. Water supply and sanitation

Most households use stream water, which is led to villages through gravity pipes system. Water quality is low. In dry season, insufficient water is rather serious. Household toilets are dug in the ground at a small distance from the houses or people release themselves in the nature.

2.1.6. Access to electrical services

Before the project, there was not electricity in the area. Constructed A’Vuong project gave the area a chance to access to the National Power Network, now electricity has come to each village.

At present, electricity line 35 Kv link An Dien to Dong Giang and 35/22 kv Trao transformer station with capacity of 1000 KVA have supplied electricity for Dong Giang district. Thus impacted zone people can get benefit from using electricity.

In resettlement sites, electricity has been supplied to each household. Installed electric capability in the area replied electric requirement for lighting house of 0.3 KW/household, agricultural production of 0.23 KW/ha, industrial production unit of 7 KW/unit, school, clinic of 0.25-1.5 KW each unit.

Number of households who use electricity is 90% the total households. In Macooih commune among 380 resettles, there was only 330 households who used electricity, the rest could not use because they was too poor to pay for electricity fee. In Dang commune, the number of households who used electricity was less. Among 328 resettles, 48 households who did not use electricity, account for 14.6% of the total resettles.

Table 5: Electricity construction in resettlement sites

Resettlement sites	Electricity line 220 KV (Km)	Electricity line 0.4 KV (Km)	Transformer station 50 KVA (station)
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Pachepalanh	4	5.5	2
Cutchrum	6	4	2
Alua	8	2.5	2
Total	18	12	6

2.1.7. Poverty and food security situation:

According to the criteria of poverty line applied since 2005, the poverty rate was 68% in Ma Cooih commune, 65% in Dang commune while this figure of the entire Dong Giang district stands at 54%. Results from the household survey show that nearly 70% of households in A So village and 75% of households in Ta Reng village that did not have enough rice for the year and relied on subsidiary crops such as cassava for their staple diet. From the beginning of year 2006, the resettled people in the commune were provided food support by resettlement plan of A'Vuong hydropower project. From the beginning of 2007, food support program was cut off, threatening to their food sufficiency. Most of interviewed people wished to have enough food and they also expressed their worries about food shortage.

2.1.8. Livelihood system:

Subsistence strategies of the ethnic minority Co Tu people here are based on the multiple utilization of available natural land and forest and water resources. Agricultural and forest utilization play a predominant role in livelihood system because a major amount of their income is derived from farming and forest product. Production activities mainly are swidden cultivation with upland rice, maize; livestock raising, hunting and forest utilization. Besides, there are several people working as hired labor in construction sites of A'Vuong hydropower project for cash income raising. On average, those people often go for hired works 4- 5 days per month and earn 15,000 VND per day.

During reservoir's construction time, about 50-70 young man participated in construction work daily. They are young men not engaged in farming activities because farm activity is not in cultivation season. They work for the project to get more extra income.

Population of the two communes is 3,010 people, total labor forces is 1,378 people.

- **Crop farming:** Co Tu cropping systems is based mainly on swidden upland cultivation for the production of rice and annual crops such as maize, beans, cassava, sesame, plus a range of vegetables. Upland rice is the most important staple crop. Wet rice cultivation has been introduced to Ma Cooih commune recently. Only a few households in surveyed villages do wet rice cultivation as wet rice field development faced many difficulties.

Agricultural products are almost entirely consumed by the households themselves: selling appears only locally and in a small scale. The average annual food production per capita (in equivalent to paddy) is 130-180 kg. Approximately 85% of the major upland products is used for daily food (household consumption), 10% (mainly cassava and also maize) to feed pigs, and 5% for other purposes like wine making, traditional and calendar festivities. Due to lack of cash, some households had to barter food for other necessity goods such as salt, fish sauce...

- **Livestock husbandry:** Animal production in surveyed villages in Ma Cooih and Dang communes consists of raising cattle, buffalo, pig and some poultry. According to interviewees, prior to the A'Vuong hydropower project implementation, they had an abundant amount of livestock. Since they moved to resettlement sites a large amount of their livestock was killed mostly by diseases infection. At present, some households in resettlement sites build farmsteads in the inundated area of the former villages for cattle raising. As they thought that condition for livestock raising in resettlement sites is not as suitable as condition in the former places. On average, each household raise 0.3- 1 cattle or buffalo, 0.5 - 1 pigs, 10-15 chickens. The main purpose for animal keeping is to generate cash income and for use as draught animals. Another purpose for keeping valuable large ruminants is for savings. In

all the surveyed villages at least 60% of total pig output is for sale in the market and the remainder is used for important events like village festivals, weddings, funerals or as gifts for relatives.

Generally, farmers with livestock have not paid attention to having animal shelters. In a majority of households, pigs and poultry stay together with humans, leading to poor hygienic conditions. Due to poor sanitation, the health and growth of animals is affected.

- **Forest resource utilization:** The forests provide a wide range of products, which are used by the villagers - for construction, for handicrafts and implements, for food and for sale (cash income). Both men and women collect forest products. However, almost all forest here is watershed protected forest, they are only allowed to collect Non Timber Forest Products (NTFP) such as vegetables, Bamboo shoots, honey bee, firewood... Timber logging is not allowed to cut. Forest products collected are mainly used for self-consumption. There are a few households collecting with a larger amount who take a surplus for sale.

- **Fisheries:** According to Feasibility Study and EIA report prepared by PECC2 and the household surveyed results on April 2007, fish species fauna in A'Vuong and its tributaries is in a poor diversity state. There are only 21 fish species, of which, two species of Chinh Hoa va Loc are listed in Viet Nam Red Book. In all survey villages, only some households catch fish and others aquatic species for self-consumption.

Fishing gear is very simple, including fishing rod, gill net, trap, keep net, toxic trees, even hands, etc. Men usually catch fish in the river, while women collect mollusks, amphibians and fish in small streams. The household survey carried out in April 2007 showed that the annual catch per households is small, only used for home consumption, not for sale. The total annual fish catch per household vary from 3 - 15 kg on average. .

- **Aquaculture:** Aquaculture is not developed in the area because people don't have habit to do fishing pond as the Kinh people do. Other aspect, lack of raising technique is also a hamper to prevent aquaculture development. The household survey showed that, of 110 households interviewed, only 15 households have fishponds. Due to lack of raising technique, fish productivity still remain low. Almost fish output is for home consumption.

If villagers are supported with fund, raising technique, aquaculture in the area can be developed.

- **Non-farm activities:**

Non-farm activities generating income consists mainly of workforce labor and government salaries such as communal officers, teachers, healthcare cadres. The trade sector is undeveloped and mainly managed by some in-migrated Kinh households. Other off-farm activities are Tho Cam weaving, rice mills, and winemaking that generates a limited amount of income for the local people. Thus they had to works as hired workers on construction sites for cash despite of low daily wage paid.

- **Importance of livelihood activities raising income:**

The resettlement household surveyed showed that, at present total annual of household income, excluding cash assisted by the resettlement and compensation project is from 6- 10 VN million per year, compared to 10 - 15 VN million prior to the project implemented.

Since in the resettlement sites, no harvest of perennial trees and productive forest has yet taken place. In the total cash income of households, estimating show that income from crop farming accounts for 38%, livestock 25%, fishery 3% and forestry 14%, the remaining 20% is from other non farm activities.

2.2 Upstream zone.

In the upstream zone, there are five villages located namely Za Hung and A'Vuong communes in Dong Giang district; A'Rooih, B.Hale and A'Tieng communes in Tay Giang district.

2.2.1. Population and ethnic minority:

According to the survey result of National Institute for Agricultural Planning and Projection (NIAPP) in April 2007, total population of the five communes of Za Hung, Arooih, A'Vuong, B.Hale, and A'tieng was 7160 persons in 1724 households. Of total population, the Co Tu ethnic minority people account for a majority with 6235 persons (87%), the remaining is the Kinh people with 925 persons (13%). The average size of household is 4.15 persons. The Co Tu is indigenous people, while the Kinh is newcomer who came here after country unification. Many of Kinh people there are government officials, teachers, health care workers and traders.

Table 6: Some criteria on population and ethnicity of affected communities

Communes	HHs	People	Cotu people	Kinh people
Za Hung (Dong Giang district)	220	937	819	118
A'rooih (Tay Giang district)	263	1074	973	101
A'vuong (Dong Giang district)	403	1663	1446	217
B.Hale (Tay Giang district)	490	2063	1760	303
A'tieng (Tay Giang district)	348	1423	1237	186
Total	1724	7160	6235	925

2.2.2. History and traditional culture of Co Tu people:

As mentioned in 2.1.2

2.2.3. Health and healthcare situation:

There is a centre of healthcare (CHC) in each commune. The CHC has capacity for preventive health care and for treating the most common diseases like upper respiratory infections, diarrhea and itching skin. Its capacity to treat serious cases is however very limited due to lack of equipment and medication.

The most common health problems in these communes appear to be respiratory infections during the dry season, including flu, bronchitis and pneumonia, and digestive diseases. Another health problem is diarrhea, goiter in children, tuberculosis and gynecological diseases in grown up people.

Child malnutrition rates are very high; among approx 40% of the children in Za Hung, 46% in Arooih, 43% in A'Vuong, 44% in B.Hale and 47% in A'tieng commune. All children are vaccinated within the national child immunization program. Children under five years also receive free extra calcium and vitamin B.

2.2.4. Education situation:

According to the household survey result, of total household headman, illiterate people account for 45%, elementary level education people account for 58%, secondary level education people account for 7%. There is any person having upper secondary education.

There is a primary school in each commune. Children want to get higher education must go to Prao town, the town of Dong Giang district. The enrolment rate is rather low, in some village teachers have to go to the children's family to encourage them for schooling.

2.2.5. Water supply and sanitation

Most households use stream water accounted for 60% and well water (40%). Water quality is low. In dry season, insufficient water is rather serious. Household toilets are dug in the ground at a small distance from the houses or people release themselves in the nature.

2.2.6. Access to electrical services

Before the project, there was not electricity in the area. At present, electricity line 35 kv connects An Dien to Hien and 35/22 kv Trao transformer station with capacity of 1000 KVA have supplied electricity for Dong Giang district. Thus in impacted zone people can get benefit from using electricity.

National power network have come to all the villages, communes but the rate of households who use electricity were not high, account for 65% of the total households, special in A'Vuong and Arooih communes the rate were only 60% because A'Vuong commune were one of the poorest of Dong Giang district and Arooih commune were one of the poorest of Tay Giang district. Power line and auxiliary equipment are not in good condition and electricity source is not available in all time caused disruption of electricity supply that make difficult and harmful for electricity users.

2.2.7. Poverty and food security situation:

According to the criteria of poverty line applied since 2005, the poverty rate was 65% in Za Hung, 68% in A'Rooih, 69% in A'Vuong, 64% in B.Hale and 67% in A'tieng commune while this figure of the entire Dong Giang district stands at 54%. Results from the household survey show that nearly 75% of households in these communes did not have enough rice for the year and relied on subsidiary crops such as cassava for their staple diet

2.2.8. Livelihood system:

Agricultural and forest utilization play a predominant role in livelihood system because a major amount of their income is derived from farming and forest product. Production activities mainly are swidden cultivation with upland rice, maize; livestock raising, hunting and forest utilization. A total labor force in the region is about 3,794 persons, mainly specialized in agricultural production.

Table 7: Labor forces in the area.

Communes	Number of Labors
Za Hung (Dong Giang district)	484
A'vuong (Dong Giang district)	887
B.Hale(Tay Giang district)	1078
A'tieng(Tay Giang district)	766
A'rooih(Tay Giang district)	579
Total	3794

- **Crop farming:** Co Tu cropping systems is based mainly on swidden upland cultivation for the production of rice and annual crops such as maize, beans, cassava, sesame, plus a range of vegetables. Upland rice is the most important staple crop.

Agricultural products are almost entirely consumed by the households themselves: selling appears only locally and in a small scale. The average annual food production per capita (in equivalent to paddy) is 120-160 kg. Approximately 90% of the major upland products is used for daily food (household consumption), 6% (mainly cassava and also maize) to feed pigs, and 4% for other purposes like wine making, traditional and calendar festivities. Due to lack

of cash, some households had to barter food for other necessity goods such as salt, fish sauce...

- **Livestock husbandry:** Animal production in surveyed consists of raising cattle, buffalo, pig and some poultry. On average, each household raise 0.5- 1 cattle or buffalo, 0.7 - 1 pigs, 10-15 chickens. The main purpose for animal keeping is to generate cash income and for use as draught animals. Another purpose for keeping valuable large ruminants is for savings.

- **Forest resource utilization:** Villagers collect forest products for home consumptions. However, almost all forest here is watershed protected forest, they are only allowed to collect non timber forest products (NTFP) such as vegetables, bamboo shoots, honeybee, firewood, etc. There are a few households collecting with a larger amount who take a surplus for sale.

- **Fisheries:**

In all survey villages, only some households catch fish and others aquatic species for self consumption.

Fishing gear is very simple, including fishing rod, gill net, trap, keep net, toxic trees, even hands, etc. Men usually catch fish in the river, while women collect mollusks, amphibians and fish in small streams. The household survey carried out in April 2007 showed that the annual catch per households is small, only used for home consumption, not for sale. The total annual fish catch per household vary from 10 - 25 kg on average. .

- **Aquaculture**

Aquaculture is not developed in the area because people do not have habit to do fishing pond as the Kinh people do. Other aspect, lack of raising technique is also a hamper to prevent aquaculture development. If villagers are supported with fund, raising technique, aquaculture in the area can be developed.

- **Non-farm activities:**

Non-farm activities generating income consists mainly of workforce labor and government salaries such as communal officers, teachers, healthcare cadres. Other off-farm activities are Tho Cam weaving, rice mills, and wine-making that generates a limited amount of income for the local people.

- **Importance of livelihood activities raising income:**

The affected household surveyed showed that, at present total annual of household income is from 10- 15 VN million per year. In the total cash income of households, estimating show that income from crop farming accounts for 40%, livestock 25%, fishery 2% and forestry 17%, the remaining 19% is from other non farm activities.

2.3. Downstream zone.

The downstream zone was divided into two zones: downstream zone 1 and downstream zone 2:

- **In the down stream zone 1:** the segment from the A'vuong dam to the powerhouse, there are two communes located, namely Zuoih and Ta Bhing communes, Nam Giang district. Two these communes will be located in and vicinity to the reservoir zone of Song Bung 4 project. Besides, total population of these two communes will be located in the reservoir, vicinity to the reservoir and upstream of the reservoir of Song Bung 4 project. According to the surveyed results, there is no cultivated land and thus no people living close to the river. Besides, according to Song Bung 4 EIA report, 4 villages among 6 villages of Zuoih commune will be located in the reservoir zone of Song Bung 4 project. The rest two villages will be located in the upstream zone of Song Bung 4 reservoir. For Ta Bhing commune, Vinh village will locate vicinity to the Song Bung reservoir, the rest villages will not be affected by A'Vuong project.

For the area of the two communes situated along A'vuong river, according to the surveyed results, there were no land and people living close to the river. Nevertheless, in order to serve estimating long term impactation of the project to people livelihoods that live closely to the project as well as function of ecological services of this location, we have shown some estimation on socio-economic situation of the region.

- **The down stream zone 2** consists of Thanh My town and Dai Son commune, Dai Loc district.

2.3.1. Downstream zone 1

2.3.1.1. Population and ethnic minority:

According to the survey result of National Institute for Agricultural Planning and Projection (NIAPP) in April 2007, total population of the three communes of Zuoih and Ta Bhing was 3,962 persons in 784 households. Of total population, the Co Tu ethnic minority people are 3,301 persons (account for 83%), the remaining is the Kinh people with 661 persons (17%). The average size of household is 5 persons.

Table 8: Some criteria on population and ethnicity of affected communities

Communes	Households	Person	Cotu people	Kinh people
Zuoih (Nam Giang district)	307	1460	1220	240
Ta Bhing (Nam Giang district)	477	2502	2081	421
Total	784	3962	3301	661

2.3.1.2. History and traditional culture of Co Tu people:

As mentioned in 2.1.2

2.3.1.3. Health and healthcare situation:

There is a centre of healthcare (CHC) in each commune. The CHC has capacity for preventive health care and for treating the most common diseases like upper respiratory infections, diarrhea and itching skin. Its capacity to treat serious cases is however very limited due to lack of equipment and medication.

Today birth control is practiced by 80% of the couples and consequently many women have only 2-3 children. According to Zuoih CHC, coil is the most common preventive method.

Child malnutrition rates are very high; among approx 47% of the children in Zuoih and 42% in Ta Bhing . All children are vaccinated within the national child immunization program. Children under five years also receive free extra calcium and vitamin B.

Most Co Tu women in Ta Bhing still give birth at home. Poor households have right to free health care according to the national Program 139, but they still have to pay the transportation costs themselves. Poor families often abstain from seeking health care due to the costs involved, and try to treat the sick with traditional medicines.

2.3.1.4. Education situation:

Education level of the adult population is low. More than half of the adult population (53%) has only elementary level education, and totally 81% only grade 5 levels. In Ta Bhing, 15% of the adult population have grade 9 level education or higher.

There is a primary school in each commune. The enrolment rate is rather low, in some village teachers have to go to the children's family to encourage them for schooling.

There are a few children at secondary and upper secondary level studying outside the Commune. The best students from the communes may be chosen to attend basic secondary school (grades 6-9) at the government funded district secondary school in Thanh My town.

The best ethnic minority students from this school might then be further given an opportunity to attend the government funded upper secondary boarding school for ethnic minority students in Hoi An.

2.3.1.5. Water supply and sanitation

Most households use stream water, which is led to villages through gravity pipes system. Water quality is low. In dry season, insufficient water is rather serious. Household toilets are dug in the ground at a small distance from the houses or people release themselves in the nature.

2.3.1.6. Access to electrical services

At present, Ta Bhing commune has accessed to the national power network, Zuoih commune has not because this commune will locate in Song bung 4 hydropower reservoir.

Electricity has come to the commune but electricity price is rather high in comparison to household's income, thus not all households can use electricity. The electrification rate is about 33%. Power line and auxiliary equipment are not in good condition and electricity source is not available in all time caused disruption of electricity supply that make difficult and harmful for electricity users.

2.3.1.7. Poverty and food security situation:

According to the criteria of poverty line applied since 2005, the poverty rate was 72% in Zuoih and 50% in Ta Bhing commune.

Household survey showed that almost 42% households in Ta Bhing is insufficient food for 3 – 6 months and 48% in Zuoih commune.

Results from the household survey show that nearly 70% of households in these communes did not have enough rice for the year and relied on subsidiary crops such as cassava for their staple diet

2.3.1.8. Livelihood system:

Agricultural and forest utilization play a predominant role in livelihood system because a major amount of their income is derived from farming and forest product. Production activities mainly are swidden cultivation with upland rice, maize; livestock raising, hunting and forest utilization.

A total labor force in the region is about 1,585 persons, mainly specialized in agricultural production.

For livelihood activities of villagers of these two communes, Song Bung River had taken a more important role than A'vuong River did. Because the whole of resident land of the two communes locates along the Song Bung River and belongs to the Song Bung River catchments, the impact of A'vuong dam and reservoir is not remarkable.

- **Crop farming:** Co Tu cropping systems is based mainly on swidden upland cultivation for the production of rice and annual crops such as maize, beans, cassava, sesame, plus a range of vegetables. Upland rice is the most important staple crop.

Agricultural products are almost entirely consumed by the households themselves: selling appears only locally and in a small scale. The average annual food production per capita (in equivalent to paddy) is 150-190 kg. Approximately 80% of the major upland products is used for daily food (household consumption), 12% (mainly cassava and also maize) to feed pigs, and 8% for other purposes like wine making, traditional and calendar festivities. Due to lack

of cash, some households had to barter food for other necessity goods such as salt, fish sauce...

- **Livestock husbandry:** Animal production in surveyed consists of raising cattle, buffalo, pig and some poultry. On average, each household raise 0.5- 1 cattle or buffalo, 1-2 pigs, 10-13 chickens. The main purpose for animal keeping is to generate cash income and for use as draught animals. Another purpose for keeping valuable large ruminants is for savings.

- **Forest resource utilization:** Villagers collect forest products for home consumptions. However, almost all forest here is watershed protected forest; they are only allowed to collect Non Timber Forest Products (NTFP) such as vegetables, Bamboo shoots, honey bee, firewood.... There are a few households collecting with a larger amount who take a surplus for sale.

- **Fisheries:**

• **Zuoih commune:**

A wide range of fish and other aquatic products are caught or collected from the Bung River, its tributaries and in mountain streams as well as from fish ponds. Fish and other aquatic products are a main food source in the four resettlement villages.

Fishing gear is diversified and includes fishing net, cast net, hand net, landing net and gill net, trap, keep net, toxic trees, even hands, etc. Most households have a hand net and view this as a major asset. Men usually catch fish in the river, while women collect mollusks, amphibians and fish in small streams. The household survey carried out in February 2006 showed that the annual catch per households varies from 152 kg in Pa Rum A to 473 kg in Thon 2 with an average of 268 kg/household. The total annual fish catch in the four villages is 55,159 kg. Most of the catch is used for home consumption (73%), the remaining (27%) for sale.

Fish farming is carried out by at least half of the households in all four villages. In total, 58% of 204 households have a fish pond. The baseline survey showed that the 119 households harvest 12,957 kg fish per year. The average yield is 11.2 tons/ha, which varies from 7.4 tons/ha in Parum B to 15.6 tons/ha in Thon 2.

• **Ta Bhing commune:**

There are few families fishing and selling fish in the villages. Fishery is a main economic activity for less than 10% of the households in Ta Bhing Commune, and significant only for a few households in Ca Dy villages. Pa Toi villagers say they were fishing a lot in Bung River in the past, but with the intensified gold mining in the river, fish has reduced a lot, and today villagers go down to the river for fishing only in special occasions like for festivities. Fish is mainly caught in mountain streams and in the streams close to villages. Most villagers buy sea fish from mobile Kinh traders on motorbikes coming daily to the villages. 75% of the households in Thon Vinh Village have fishponds. In the other villages the amount of households with fishponds varies greatly from a few households to 1/3 of households. Fish is raised for family food, but also sold to other families in the same village. This selling is, however, at a very small scale.

- **Non-farm activities:**

• **Zuoih commune**

Income from other sources than agriculture, livestock breeding, forestry and fishery consists mainly of workforce labor and government salaries, particularly in Pa Dhi (9.6% and 13.0% of total household income, respectively). The trade sector is undeveloped and mainly managed

by in-migrated Kinh households. Other off-farm activities are Tho Cam weaving, rice mills, gold mining, and wine making that generate a significant cash income for the local people.

- **Ta Bhing commune**

Along the road, there are shops in every village. Kinh people run the shops, but trade is not specified as the main economic activity for any households according to the village survey. This may be due to the traders not being licensed, and therefore claiming trade to be a supplementary activity.

- Importance of livelihood activities raising cash income:

- **Zuoih commune**

In average, income of household was 10 to 12 million VND/year. In the total cash income, income from farming accounts for 14%, livestock husbandry accounts for 10%, fisheries accounts for 26%, forest product accounts for 10%, the remainder 40% comes from off-farm activities.

- **Ta Bhing commune**

It is estimated that of total cash income, income from farming accounts for 10-15%, livestock husbandry accounts for 20 - 25%, fisheries accounts for 3 - 5%, forest product accounts for 30-35%, the remainder 20- 37% comes from off-farm activities.

2.3.2. Downstream zone 2

2.3.2.1 Population and ethnic minority:

The zone consist Pa Dau 2 village of Thanh My town, Nam Giang district and 8 /10 villages of Dai Son commune, Dai Loc district.

The village of Pa Dau 2 is administratively part of Thanh My town Commune. It has a total population of 157 persons in 39 households. All come from the Co Tu ethnic minority group. In Dai Son commune, there are 679 households living in 8 villages. Of these households, 98 (or 14%) are fishing in Song Bung and/or the Vu Gia rivers. All are of the Kinh ethnic group.

2.3.2.2. History and traditional culture:

Pa Dau 2 villagers previously lived close to the A'Vuong River (upstream of their current location), but in 1968 they moved to their present residential area close to (1 to 3 km) the Song Bung River. In 1986, 30 persons died of an epidemic disease with high fever and headache, according to the people it might have been malaria, and they moved to Pa Dau Village in Thanh My town. Villagers returned in 2002 to the present location.

As people in Pa Dau 2 village belong to the Co Tu ethnic group, their traditional custom and culture are similar to those of the Co Tu people in reservoir area.

2.3.2.3. Health and healthcare situation:

There is a Village Health Worker in Pa Dau 2 village, but when people get sick they have to go to Thanh My town Health Care Centre. They also have to bring their children there to get vaccinated. Women give birth at home, and they only go to the clinic in Thanh My town if the delivery is expected to be a difficult one.

There is a centre of healthcare (CHC) in the Dai Son commune. The CHC has capacity for preventive health care and for treating the most common diseases like upper respiratory infections, diarrhea and itching skin.

Today birth control is practiced by 90% of the couples and consequently many women have only 1-2 children. According to Dai Son CHC, coil is the most common preventive method. Child malnutrition rates are not high approx 35% of the children.

2.3.2.4. Education

There is a school with grades 1-5 in Pa Dau 2 village. For higher grades, the children have to study in Thanh My town. Villagers wish to support their children's education, but not all families can afford it: (school cost is 500,000VND/child/year). According to the villagers, it is not subsidized because the village is located within the district town area. While education level in Dai Son commune is rather high; the schooling rate of children is 80%.

2.3.2.5. Water supply and sanitation

There is a water tank in each hamlets of Pa Dau 2 village for daily household water consumption provided by the District Government. This water comes through a pipeline from the Da Dang stream and is available all year. The Bung River is mainly utilized for bathing. All most of households in Dai Son commune use water from wells for daily consumption. Only three percent of households in Dai Lanh get water from the stream. Household toilets are dug in the ground at a small distance from the houses or people release themselves in the nature.

2.3.2.6. Access to electrical services

Downstream zone 2 have already accessed to the national electrical grid. Electrification ratio is about 70-80%. The quality of electrical services is sound good.

2.3.2.7. Poverty and food security situation:

The poverty rate of the entire Nam Giang district is 53% compared to 58% of Pa Dau 2. Almost 80% of the households do not produce enough rice for all the year and have to mix rice with cassava and buy rice part of the year

The poverty rate of communes in Dai Son commune is about 27%. Since rice is only grown in four out of the eight villages of Dai Son commune, the production is far from sufficient to meet the need. 85% of the households buy rice every month. However, few households have to mix rice with other because they plant cash crops which are better suited to their land, i.e. maize, peanut and pineapple to sell and purchase rice.

2.3.2.8. Livelihood system:

Like Co Tu people in reservoir zone, subsistence strategies of the ethnic minority Co Tu people here are based on the multiple utilization of available natural land, forest and water resources. Agricultural and forest utilization play a dominant role in livelihood system because a major amount of their income is derived from farming and forest product. Production activities mainly are swidden cultivation with upland rice, maize; livestock raising: buffalo, cattle and poultry, forest product collection and hunting. Besides, fishery and aquaculture are of important livelihoods component providing a main source of their food and protein and raising cash income.

- **Crop farming:** The area of Dai Son Commune is not predominantly a rice growing area. Only 227 (or 33%) of all households grow wet rice on 21.38 ha with a total production of 77.3 tons. All rice production takes place in the four villages of Hoi Khach Dong, Hoi Khach Tai, Tan Doi and Bai Qua where there are small lowland areas suited for paddy rice farming. Other five households in Hoi Khach Dong grow upland rice on 0.47 ha.

The main products in all villages are maize, peanut and pine apple. Maize and peanut are usually grown on the same field, during different season (in rotation). Maize was grown on 30.92 ha and yielded 7,125 kg in 2005. Peanut was grown on 31.23 ha and yielded 9,225 kg. Pine apple was grown on 464.54 ha with a production of 3,772 tons.

- **Livestock raising** is relatively developed in Dai Son commune with main livestock of buffaloes, cattle, pig and poultry. There are a total of 737 buffaloes, 637 cattle, 875 pigs and 4366 poultry. Buffaloes and cattle are mainly used as draught animals and as a bank.

- **Forest utilization:** forest utilization in Dai Son mainly are firewood, rattan and timber collection. Since forests are to a large extent degraded in the Dai Son Commune, there are not a lot of people doing forest product collection, mainly in 3 hamlets of Thac Can, Dao Go and Dong Cham. In these villages, the total annual production consist of 1,615 m³ of firewood, 3829 rattan fiber, and about 156 m³ of timber. .

- **Fisheries:** Six out of eight villages in Dai Son Commune have villagers fishing in Song Bung and/or Vu Gia. The number of households fishing in these rivers is 98 (or 14%) of the totally 679 households in the commune. The total annual catch is 26,180 kg or in average 267 kg per household. According to the survey result of PPTA, the total fish catch of all households in Pa Dau 2 Village was around 4,200 kg in 2005. The average amount of fish caught and eaten in the fishing households per household per year is 244 kg in Hamlet 3, 85 kg in Hamlet 2 and 74 kg in Hamlet 1.

- **Importance of livelihood activities raising cash income:**

Cash income of people in Dai Son commune is mainly raised from farming, livestock husbandry, fisheries and off-farm activities. It is estimated that of total cash income, income from farming accounts for 30-35%, livestock husbandry accounts for 20 - 25%, fisheries accounts for 10 - 15%, forest product accounts for 5-7% and the remainder comes from off-farm activities.

Cash income of people in Pa Dau 2 village belonging Thach My town is mainly raised from farming, livestock husbandry, fisheries and off-farm activities. It is estimated that of total cash income, income from crop farming accounts for 14%, livestock 10%, fishery 26% and forestry 10%, the remaining 40% is from other non farm activities.

3. Ecosystems functions and services do the livelihoods of the Project Affected People depend on:

Ecosystem services are defined as ecological processes that produce, directly or indirectly, goods and services from which humans benefit.

3.1. RESERVOIR ZONE:

Subsistence strategies of the ethnic minority Co Tu people are based on the multiple utilization of available natural land, forest and water resources. Agricultural production, forest utilization and fisheries play a significant role for their subsistence. Based upon socio-economic and traditional customs and culture profiles, it is noted that, livelihoods of those people depend on following ecosystem functions and services:

- **Food production:** in subsistence strategies, crop farming, livestock raising are the main livelihood activities. The product produced and collected includes rice, maize, fishes, meat and a range of vegetables. Reservoir will inundate almost their fertile cultivable land and grazing land. Consequently, they were forced to displace to resettlement sites.

- **Water resource access:** Rivers and streams are utilized for fishing and catching other aquatic species. This is a source providing food and protein for the local people. In addition, A'Vuong River also provides water for agricultural production, washing and bathing. Reservoir formation will force them to relocate to new resettlement places that are more far from A'Vuong than the former places. Thus, more difficulty to access A'Vuong River will induce a significant decrease in livelihoods generating from A'Vuong River.

- **Raw material:** Forest provides almost all the everyday necessities: house construction material, rattan fiber, firewood, and food in the form of vegetables, grass for cattle.....

A'Vuong river and its streams also provide construction materials such as sand and gravel.... However, according the study result of PECC2 and WRRDC, almost forest to be inundated in the reservoir is bush, grass plot and some area of poor forest, thus reservoir flooding will not cause large extent impact to this ecosystem functions.

In addition, there is a rich knowledge among the Co Tu on medicinal plants, roots, bark and other medicinal items growing in nature. Ingredients for medicine are collected in the forest and along the river. Thus, reservoir flooding also impact on material availability for medicines. Besides, in the catchments area, there are 49 species of precious plants and 58 animal species for genetic resource protection. Of which some species are ranked in a state of emergency for protection, according to EIA report of PECC2. However, this impact viewed to be not serious because 3-5% of total current forest will be inundated and most of this forest is poor.

- **Biodiversity:** Catching fish and other aquatic species, hunting and forest product collection generate a considerable share of local people's income and provide important food sources for local people. The output of those activities depends upon the species diversity extent of aquatic ecosystem and riverine ecosystem. The inundation will result in a loss of river habitat, which will be replaced by a lake with a large water level fluctuation. All life in the littoral zone will die because of the periodical dry up of the reservoir banks. The regulation zone will be heavily eroded, rendering a denuded, inorganic, desert-like zone of sand, gravel, and stones where nothing can grow. Inorganic erosion material will settle in the reservoir bottom and reduce the nutritional value of bottom sediments for animals dwelling at the bottom. In the first years after the regulation, fish productivity will be relatively good because of the supply of food and nutrients from the inundated terrestrial land. However, over time, fish productivity will be markedly reduced and the potential for fish harvest will be low. Only a few fish species will succeed in adapting to a lake life. In the reservoir, the biodiversity of fish will be reduced by 30–50%. Especially, in the catchments there two precious fish species namely Chinh Hoa Aguill Marmrata and Loc Channa Striata listed in Vietnamese Red Book. The dam and reservoir creation will induce a probable risk of these two fish species disappearance.

- **Traditional culture:** Regarding to Co Tu people, traditional customs and culture play an important parts in their lives and livelihoods. In the mid-world everything in the nature has a spirit, and the humans have to make offerings to these spirits in order to live in harmony with them. Through traditional culture, their young generation is taught how to live in harmony with the nature and ensure sustainability in livelihood development. Nevertheless, people surveyed in reservoir zone were moved to resettlement places having similar natural conditions to the present places, thus traditional culture is not be adversely influenced.

3.2. UPSTREAM AND VICINITY RESERVOIR ZONES:

The survey result in Ta Reng village showed that livelihoods of Co Tu people here also depend on ecosystem functions and services as those in reservoir zone, including: food production, water access, raw material, biodiversity and traditional cultures. Many of those ecosystem functions and services are likely not to be seriously impacted by dam. The ecosystem viewed as most impacted by the dam in this zone is aquatic biodiversity.

Fish and other aquatic species catching generate a food source for the local people. The output of those activities depends upon the species diversity extent of aquatic ecosystem. The inundation will result in a loss of river habitat, which will be replaced by a lake with a large water level fluctuation. Moreover, dam formation will eradicate long distance migratory species from downstream to upstream and vice versa. Those changes may be inducing a

potential decrease in fish and other aquatic species diversity, leading to a decline of fish and aquatic species product harvested.

3.3. DOWNSTREAM ZONE:

As described in the impact scale section, in the stretch river between A'Vuong dam and the tailrace canal of power plant (some 13 km), the river is still steep, with rocky shores. The covers of vegetation only consist of bamboo forest with poor productivity reserve, some bush and grass plots. There is no cultivated land, people living here. Thus, no impact assessment of the dam on ecosystem function and services do the livelihoods of local people depend on have been carried out.

Zuoih commune (Nam Giang district), locates on the location from the dam to the confluent of A'Vuong river and Bung river. In this stretch, topography is steep and land is not fertile thus people reside far from the river. Disperse households of Zuoih commune, Nam Giang district locate at list two km from the river. Thus impaction of the dam and operation of the reservoir to the local people is not noticeable.

According to the feasibility study and EIA report, water from the A'Vuong Reservoir will be diverted, via a headrace tunnel and an underground penstock, to a power station located on Bung River some 13 km downstream of the dam and then discharge to Bung River. Consequently, a stretch river of 13 km (from the A'Vuong dam to the tailrace canal of power plant) will change to a dead river. Especially in dry season, water flow will be absolutely cut off; this stretch river will be dried up. This will induce a loss of aquatic habitat because river ecosystem will be replaced by a bone-dry ecosystem. This is viewed one of most noticeable adverse impacts of the dam on aquatic biodiversity in the downstream zone.

On the stretch of the river from the confluent of A'Vuong River and Bung River to the power house, there are two communes TaBhing and Thanh My situated.

After the power house, the Dai Son commune was impacted by operation of the power house. Operation of the power house resulting in downstream river level fluctuations, on a daily basis:

- Will impact the ecology and reproductive biology of those remaining, non migratory aquatic species;
- In Dai Son commune river bank erosion will occur, which will affect some river bank gardens and crop land; and
- Access to the river for domestic water collection and domestic animals will be impacted.
- Decreased discharge and water level during periods of the day due to peaking operation of the power plant that could make transportation and construction material exploitation on the river difficult, and reduce the capacity to draw water from the river
- Less flooding during the wet season that could increase the risk of insects, etc. as that can induce an increase adverse impact on production and daily life.
- The ecosystem function is viewed most impacted by the dam is fish and aquatic species diversity. Dam and reservoir operation will change flow regime and water quality, decline of nutrient for fishes and aquatic species and create a barrier for fish migrant route. As a result, fish and other aquatic species will decline, in both production and biodiversity, long distance migratory fishes will be disappeared. It is estimated that, fish production harvested in this villages will reduce by 80 - 90%.
- Aquatic biodiversity: The regulation has a significant impact on aquatic species in downstream zone. Long distance migratory species will disappear because of the barrier

effect of the dam. The biological productivity of the river may be reduced up to 75%. Peryphiton, bottom animals and fish will decline both in production and biodiversity up to 30% resulting a decrease of fish and aquatic production harvested. So cash income and food sources of the people there will be adversely affected.

- Water access and regulation: Song Bung and A'vuong Rivers provide almost water for agricultural production and drinking water for people in Dai Son commune. At present, about 80% of households in Dai Son take water from dug-wells for daily use. Thus during project construction phase underground water level may be declined, this may cause adverse impact to their daily lives. Moreover, large water level fluctuation in construction and operation time will increase probability of difficulties for water way transportation.

3.4. PROJECT LAND AREA:

Livelihoods of Project Affected People living nearby project land area depend on following ecosystem functions and services: food production, water access, raw material, biodiversity and traditional cultures. Ecosystem functions and services are viewed most impacted by the dam as follows:

- Food production: According to resettlement and compensation plan and the survey result in April 2007, total land area of 15 villages within project land was acquired were 110 ha.

Almost acquired land was poor forest and there was no resident here. Therefore, this ecosystem function of food production is likely not seriously affected.

- Biodiversity: One of the livelihood activities of the ethnic minority people living nearby the project land is forest utilization. Forest product collected depends on the extent of fauna and flora diversity. According to survey result of NIAPP in 2007, not many forest areas utilized by the nearby local villagers are located within the impacted areas. Construction activities and influx of construction workers have induced some adverse impacts on fauna and flora, including vegetation loss, increase in illegal logging and NTFP collection, and illegal hunting. These impacts lead to a decline of biodiversity and negatively influence to livelihoods of local people living around this area. However, the views expressed were the livelihoods of local people have not been remarkably impacted since almost forest located in the project land area is poor forest. Moreover, according to the communal officers and villagers interviewed, illegal logging and hunting was rarely taken place because of strict watershed forest protection rules executed and traditional customs of the Co Tu ethnic minority for supernatural forest protection.

4. Impact of project on the lives and livelihoods of project-affected communities

4.1. IMPACT OF RESERVOIR FLOODING ON THE LIVES AND LIVELIHOODS OF PEOPLE IN THE RESERVOIR ZONE:

- Flood 100% the housing area /settlements of 6 villages in Ma Cooih and Dang commune and partially inundate (28%) 1 village of A So in Ma Cooih commune. A total of 330 households in these villages were displaced and 50 households in A So villages were impacted on their land and livelihoods
- Flood almost the social infrastructure in these 5 villages, such as Commune office, clinic, one primary school, a stretch of Ho Chi Minh highway, internal village roads and forest farm and many gravity supplied water systems.
- Flood 566 graves in 7 these villages of 2 communes, all graves have to be relocated. In the worldview of the Co Tu people, good relation and respect to the dead people are

of importance in their culture. The household survey result showed that relocation of graves was organized in accordance to the Co Tu tradition and in agreement with the villagers; it did not cause any psychological effect on the project affected community.

- Flood the wet (paddy rice) fields, upland crop land and some fruit tree gardens of seven villages. A total of 261.8 of agricultural land will be flooded, including 14.02 ha of two crop paddy land, 12.25 ha of one crop paddy land, 184.24 ha of subsidiary crop low-lying land and 26.08 ha of upland crop.
- Flood 520.39 ha of the forest currently utilized by the villagers. These take an account of 3% of their total current forestry resources. Of total flooded forest, 157.8 ha is planted forest, this induces adverse impact on their livelihoods.
- Flood 25 fish ponds of these villages and 1.7 ha of other aquaculture land. Total annual catch impacted is about 1.5 - 2 tons.

Table 9: Land area to be flooded by A'Vuong hydropower project

No	Items	Unit	Quantity
	Total	Ha	941.65
I	<i>Agricultural land</i>	<i>Ha</i>	<i>261.8</i>
1	Annual crop land	Ha	234.59
	Two crop paddy land	Ha	14.02
	One crop paddy land	Ha	12.25
	Subsidiary crop land	Ha	182.24
	Upland crop	Ha	12.02
	Upland rice	Ha	14.06
2	Mixed garden	Ha	0.81
3	Perennial tree land	Ha	0.39
4	Industrial tree land	Ha	24.22
5	Aquaculture land	Ha	1,77
II	<i>Forest land</i>	<i>Ha</i>	<i>520.39</i>
1	Planted forest	Ha	157.8
2	Regenerated forest	Ha	120
3	Natural forest	Ha	242.59
III	<i>Special use forest</i>	<i>Ha</i>	<i>19.92</i>
1	Construction land	Ha	2.02
2	Transportation land	Ha	16.57
3	Irrigation land	Ha	0.12
4	Others	Ha	1.21
IV	<i>Residential land</i>	<i>Ha</i>	<i>19.97</i>
V	<i>Non-used land</i>	<i>Ha</i>	<i>119.59</i>

(Source: Resettlement and compensation plan, 2003)

Besides, some off-farm livelihood activities of people in reservoir zone has been positively impacted:

- Potential increased in job opportunity. The household survey result showed that since A'Vuong hydropower project was implemented, there have been 45 households in surveyed villages raising income from hired works. It is estimated that, each household earned 2-3 VN million per year, averagely.
- Carpentry works increased due to house building in resettlement
- Increased opportunity for trade and business

4.2. IMPACT OF DAM AND RESERVOIR ON THE LIVES AND LIVELIHOODS OF THE PEOPLE IN UPSTREAM ZONE:

In general, the impacts upstream of the reservoir will be small. The creation of dam will eradicate long distance migrant of fish. However, according to the investigated result of Canadian Global Environmental Consultant Company in May 1995, at the A'Vuong stretch of river where dam and reservoir are constructed, water flow run very fast, especially there is a waterfall located some km upstream of A'Vuong dam creating a natural barrier to migration. Thus, the long distance migratory fish such as Chinh Anguilla Marmorata cannot migrate up to upstream zone, even prior to the A'Vuong hydropower project. Therefore, dam and reservoir creation will not cause considerable adverse impact on fish in both productivity and species diversity in upstream zone. In addition, due to low fish productivity of upstream zone, there are few households here fishing as professional fishermen, but only some households fishing for home consumption. The household survey showed that, fish production harvested recently has lightly declined by some 10%.

4.3. IMPACT OF DAM AND RESERVOIR OPERATION ON THE LIVES AND LIVELIHOODS OF PEOPLE IN DOWNSTREAM ZONE:

As described in the impact scale section, water from the A'Vuong Reservoir will be diverted, via a headrace tunnel and an underground penstock, to a power station located on Bung River some 13 km downstream of the dam and then discharge to Bung River. Consequently, a stretch river of 13 km (from the A'Vuong dam to the tailrace canal of power plant) will change to a dead river. Especially in dry season, water flow will be absolutely cut off; this stretch river will be dried up. Fortunately, this stretch river is still steep, with rocky shores. The covers of vegetation only consist of bamboo forest with poor productivity reserve, some bush and grass plots. There is no cultivated land and thus no people living close to the river. Disperse households of Zuoih commune, Nam Giang district locate at list two km from the river. Thus, any adverse impacts by the dam and reservoir operation on the livelihoods of local people in this area are minimized.

The downstream zone (consists of Thanh My town in Nam Giang district and Dai Son commune in Dai Loc district) of the tailrace canal of the A'Vuong power plant also belong to the downstream of Song Bung 4 hydropower dam to be built on Bung River, some 3 km upstream of confluence with A'Vuong river. In the future, both A'Vuong and Song Bung 4 hydropower project will possibly resonantly influence this downstream zone. At this time, it is not possible to assess impact extent by A'Vuong dam and reservoir operation on the lives and livelihoods of people living this zone since the power plant has not yet operated. This issue will be further studied and monitored from start of A'Vuong operation.

4.4. IMPACT OF CONSTRUCTION ACTIVITIES ON THE LIVE AND LIVELIHOODS OF THE PEOPLE IN PROJECT LAND AREA

4.4.1. Impact of land acquisition:

Land acquisition to build mainly permanent and in some case temporary project components has impacted the current uses and/or owners of such land, in that those user or owner will loss the ability to use, produce crops, conduct businesses etc from those lands.

Total area acquired was 110 ha of land; almost acquired land was the poor forest. No people were living there. Forest land area acquired occupied only 3% of total forest land currently utilized by the villagers. Thus impact caused by land acquisition on the lives and livelihoods of the local people is not considerable.

4.4.2. Impact of projection construction workforce and related activities:

During the approximately 5 years of construction of the A'Vuong project, a large and significant - in comparison to current local population levels, of construction workers or related workers, camp followers and the like will immigrate into the area. According to some interviewees, these workers have induced some negative impacts on the local population of Ma Cooih and Dang communes, such as;

- social and possibly moral disruption;
- increase in sexually transmitted diseases (STD);
- increase on prices of food products due to increased demand for local foods; and
- Increase in pressure on natural resources by the immigrants due to increased hunting, illegal forest exploitation and other forest products collection. Some household heads said that during the construction phrase, from 2003 up to now, the output of their forest product collected is estimated to reduce by 20 - 30%, compared to the pre-project implementation.
- The influx of the large number of construction and transportation vehicles have impacted on local traffic, some traffic accidents have taken placed...etc.

5. Compensation and resettlement provisions for affected people

5.1. THE COMPENSATION AND RESETTLEMENT PRINCIPLES OF THE A'VUONG INCLUDE THE FOLLOWING:

The resettlement and compensation plan was established in the context of insufficient specific governmental policies on resettlement in general and on resettlement of hydropower project in particular. Legal framework of Decree No 22/1998/NDCP dated April 22nd 1998 on compensation was not detailed enough and inappropriate to A'Vuong hydropower project context.

The resettlement and compensation policy and entitlement frameworks for A'Vuong hydropower project was prepared by WRRDC based on that time legal and policies frameworks of the government and agreement between investment owner and local authorities of Quang Nam province, District People's committee of Hien district (today is Dong Giang and Tay Giang districts) and People committees of Ma Cooih and Dang communes.

5.2. RESETTLEMENT AND COMPENSATION PROVISIONS PROVIDED FOR PROJECT AFFECTED PEOPLE:

5.2.1. Entitlements for compensation and allowances of displaced people in resettlement sites:

Displaced people were entitled to following compensation: compensation for loss of land, loss of housing and other assets, loss of annual crops and perennial crops, planted forest and fish ponds; movement allowance. They were also entitled to a range of allowances and transitional measures including: Movement Allowance, Movement incentive allowance, Allowance for vulnerable Household, Village leaving Ceremony, House warming Ceremony,

Graves movement allowance, Allowance for lives and production stabilization during the transitional Period such as: Food, education and healthcare services and agriculture extension service assistance.

- Compensation for loss of agricultural land: Resettled households were provided replacement land area at the resettlement sites. For special cases, when their old land had a higher value than value of replacement land they were provided cash compensation for the difference. Almost interviewed resettled household heads said the amount of their cash compensation was not corresponding to their old land area. 50% of total 70 interviewed persons said cash compensation they were provided was not appropriate. Up to now, resettled households in Ta Reng village have been provided land for wet rice production, but some household have not yet accepted due to rocky land and insufficiency of water.
- Compensation for housing: Every resettled household was provided a house with 40 - 50 m² wide, excluding supporting works. In case value of old house was higher than the compensated one, house owner was received that excess in cash. If the value of old house is lower than the compensated one, house owner did not have to pay that excess. The household survey result showed that, there were about 50% of total interviewees who was satisfied with their compensated houses; the remainder expressed their lack of satisfaction with compensated houses because they felt they were a bad style and low quality.
- Compensation for other architectural assets: Regarding architectures and other assets attached to land which was not possible to be dismantled and not provided at the resettlement sites, the owner were provided cash compensation equally to 100% total value of newly built works with equivalent technical standards.
- Loss of annual crops, perennial trees, fish ponds and planted forest were compensated in cash corresponding to unit price stipulated by the provincial committee of Quang Nam.
- Movement allowance: Both displaced households resettled in resettlement sites and self-resettled households who did not move to the resettlement sites were provided movement allowances for dismantling and moving houses to new settlement sites with the same level of one VN million per household. Those households were received that allowance one month before moving to new settlement sites.
- Allowance for lives and production stabilization: For household to be moved (consisting of households resettled in resettlement sites and self-resettled households who did not move to the resettlement site) were assisted for lives and production stabilization during the transitional period. The amount of this allowance was 110,000 VN dong/person/month within 12 months. Those households were received cash monthly.
- Agricultural extension allowance: displaced households were entitled to one time provided allowance for seedling purchase with an amount of 500,000 VN dong per household. However, the household survey result showed that they have not been received this allowance yet.
- Allowance for vulnerable Household: Vulnerable households were entitled to an allowance in accordance with level stipulated by the provincial committee of Quang Nam, excluding above mentioned allowances

- Movement incentive allowance: Households moved to new resettlement site prior to the schedule or timely were awarded an allowance of 3 VN million per household.
- Other allowances:
 - + Allowance for grave movement: 400,000 VN dong/household
 - + Allowance for village leaving Ceremony corresponding to their traditional customs: one buffalo
 - + Allowance for house warming ceremony: 500,000 VN dong/household
 - + Each resettled household were provided one breeding cattle worth 2 VN million

Almost interviewed persons reported that although they were provided food and other allowances during transitional period, no training for occupational conversion were obtained. Therefore, when supporting time ended, some resettled households have suffered from food shortage. As stipulated, each households were entitled to provision of 1 - 1,2 ha agricultural land. However, some interviewed household headmen reported that they do not have enough land for production.

5.2.2. Entitlements for compensation of Self-resettled households:

Self-resettled households who did not move to the resettlement sites were entitled to cash compensation for their loss of housing, other assets attached to land and crops, planted forest, fish ponds based on unit price stipulated by the provincial committee of Quang Nam.

5.2.3. Entitlements for compensation of affected households not to be displaced.

Affected households who lost land and other assets attached to land were entitled to following compensation:

- Compensation for loss of land: they were either provided replacement land or cash compensation
- Loss of crops, livestock were compensated in cash as resettled households

The household survey showed that, 50 affected households in A So village who lost land have only been provided cash compensation for their lost crops, loss of land have not been compensated yet.

5.2.4. Entitlements for project affected people in the up/downstream zones:

According to the resettlement and compensation policy and entitlement frameworks for A'Vuong hydropower project prepared by WRRDC, there was not any provision of entitlement provided for project affected people in the up/downstream zone.

5.2.5. Resettlement sites construction:

There are 3 resettlement sites constructed for displaces people in A'Vuong reservoir: Pachepalanh resettlement site in Ma Cooih commune, Cutchrin resettlement site located close to Ho Chi Minh highway and A Lua resettlement site in Dang commune. All resettled households in these three resettlement sites were arranged in a concentrated way.

- In Pachepalanh and Cutchrin resettlement sites, every household was allocated a plot of 400 m2 wide residential land.
- Alua resettlement site is the vertical slopping resettlement site, due to unfavorable topographical condition; each household was allocated a plot of 200 - 250 m2 wide residential land.

All necessary infrastructures such as transportation roads, electricity system, irrigation works, schools, clinics, common houses were constructed in all resettlement sites. Details are as follows:

- Total communal transportation roads to resettlement sites constructed are 10.4 km long; internal roads in resettlement sites constructed are 12 km long.
- Electricity is provided to each resettlement site, and to each resettled house.
- Drinking water is provided to each resettlement site and to either each household or each small group of households by gravity pipe systems.
- Irrigation works: there are 4 small dams built in Pachepalanh resettlement site built, 2 small dams built in Cutchrun resettlement site and only one in Alua resettlement site.

Besides, other public works also were built in all resettlement sites, including: schools, clinics, common houses, and village administrative office.

The household survey result showed that almost people in resettlement sites expressed their satisfaction about these infrastructure works constructed. According to them, if A'Vuong hydropower project was not implemented, they would never have opportunity to access these works. Infrastructure system investment in resettlement sites will make a contribution to their living condition improvement in particular and socio-economic development motivation of the whole region in general.

Table 10: Resettlement arrangement alternative

No	Names of displaced villages	No of villages	No of HHs	No of Pers	Resettlement sites			Self-resettlement HHs
					Pachepalanh	Cutchun	Alua	
	Total	7	330	1572	132	95	69	
I	Dong Giang district	5	257	1142	132	95		
	Ma Cooih commune	5	257	1142	132	95		30
1	A So village	1	19	25				19
2	A Zal village	1	64	302	63			1
3	A Deng village	1	49	227	6	41		2
4	Đhơ Reng village	1	70	333	47	19		4
5	Trơ Gung village	1	55	255	16	35		4
II	Tay Giang village		73	430				
	Dang commune	3	73	430			69	4
1	A Lua village	1	52	277			48	4
2	Ka La village	1	52	277			21	

5.3. FINANCING PROVIDED FOR COMPENSATION AND RESETTLEMENT:

5.3.1. Budget source

According to resettlement and compensation plan prepared by PECC 2, total investment budget for resettlement and compensation is approximate 170240 MVND. Investment cost (for 380 households including 330 households lost their houses land and property forced to be displaced and 50 households lost their land only) on average per household is 448 MVND. All budgets is funded by EVN (details can be found in table 11)

5.3.2. Budget Management and Disbursement:

For certain of the larger infrastructure items of expenditure, and the larger investments or purchases, the contracts are managed by ATD3, and the expenses are paid direct to contractors by ATD3.

Regarding cash compensation and allowance delivery, Provincial Resettlement Committee and ATD 3 will collaborate with District Resettlement Management and Implementation

Unit, Commune and Villages Authority on delivery payments directly to APs with respect to land, crops, trees, houses, other structures and any allowances. Almost interviewed people said that they have received all cash compensation for crops, other assets attached to land and every allowance stipulated, but cash compensation for land lost.

Table 11: Summary of resettlement and compensation budget

No	Items	Quantity (VN dong)
A	Compensation	69,060,719,123
A.1	Compensation direct to affected people	26,266,721,450
I	Crops, trees	18,869,430,300
II	Land	1,440,000,000
III	Architectural structures	1,419,851,150
IV	Allowances	4,537,440,000
A2	Compensation for transportation road lost	39,505,392,000
A.3	Others	3,288,605,673
B	Resettlement	74,079,309,150
B.1	Resettlement site construction	44,130,293,000
B.2	Road to resettlement sites.	26,421,430,000
B.3	Others	3,527,586,150
C	Environment management	16,293,358,016
	Reservoir's clearance	3,488,000,000
	Chemical toxic treatment	6,497,300,000
	Forest protection	1,000,000,000
	Other	5,308,058,016
D	Other	10,807,342,259
	Total	170,240,728,548

In the above table, the total budget amounts of 170,240,728,548 VND that spend only for the reservoir zone were divided for compensation of 69,060,719,123 VND, for resettlement site construction of 74,079,309,150 VND, for environment management of 16,293,358,016 VND.

Resettlement site construction consist electricity, road, house, drinking water...

In compensation, besides compensation for households, compensation for transportation road lost were paid also.

Expenses for environment management consists of Reservoir's clearance (clearing trees), Chemical toxic treatment (clearing residential side, grave moving, chemical toxic etc) and forest protection.

The schedule for the implementation of the resettlement and compensation: According to the resettlement and compensation plan prepared by WRRDC, the resettlement and compensation plan is projected to last 4 years, from 2004 to 2008. Up to the point of April 2007, site clearance, compensation for loss of crops, land and other assets, resettlement sites construction, affected people movement and lives and production stabilization support during transitional period have been basically completed. In coming time, livelihoods restoration and production support for project affected people will be made a continuation. Livelihoods restoration and production supporting program to be implemented from now to year 2008 consist of sloping agricultural land technology - SALT) training and implementation pilot project program, continuation of agro forestry and aquaculture extension program.

6. Tensions and controversies arisen in the affected communities related to the project:

According to the survey and household interview result, there are some relations and shortcomings during resettlement and compensation implementation process induced tensions and controversies among project affected communities:

- Spare residential land area for population growth was not taken account in resettlement sites designing process. Consequently, some households had to build their houses on production land.
- Generally, the land tenure area of resettlement land are not suitable with "Phố bản" model
- The structure of the accommodation and the productive area are also broken because of the limit about space and surface
- Houses and residential land plot provided for resettled households not based on family size: the allotment of 400 m² of residential land and a house with 40 -50 m² wide to each household in resettlement site regardless of family size is unfair, especially to larger family. This has induced resentment and tensions among the resettled community.
- According to the interviewed people, the model of stilt house had been designed is not the Co Tu's mode one.
- Due to no trees in resettlement sites and the Fooeboxima roofing, in the summer it is very hot.
- The wood used to make the floor and stair does not reach the standard.
- There is no system of surface drain, the drains are natural, so it is easy to be eroded and crashed down, negatively impact on their lives.
- The breeding facilities and toilets have to be apart from the accommodation and water source, but they can build these since the design has no garden.
- The people also made lots of questions about the policy of balancing their old and new land. For example, in resettlement site of Pachepalanh, each household still lack of 1.17 - 0.47 ha production land. Disparity between old land area and new provided land one vary from 1- 6 ha. Regarding wet rice land alone, the household survey showed that though land was allocated to households, people here have not taken yet due to unfair compensation level and rocky land.
- Co Tu people consider their village as a completed administrative organization. The differentiation between the rich and the poor is not worth considering and it is not the bound of discriminatory treatment in the community. Since the appearance of the policy about compensation for resettlement, lots of contradictions arose.
- Due to no training for useful use cash compensation and allowance, many households who have received large sums of cash compensation have hard a hard time managing it. Not accustomed to saving and investing, some have bought motorbikes, while others have wasted it on drinking or drugs. These households are likely to suffer from future food shortages and may fall back into poverty if no sustainable means of income is found.

7. Social organizations are active in the project area promoting local development and sustainable resource management:

- The Co Tu has a traditional forest management system. Each village has its own regulations, and forest management areas are divided between the local villages. These regulations are based on customary regulations and local understanding of the environment and not on the Land Law. The village head and patriarch play important roles in these activities.
- Since 2001, District Agriculture Extension Centre and Từ năm 2001 have introduced and provides new variety, insect prevention measures and technique for wet rice, livestock and aquaculture production. At present, in each commune there is an agricultural extension staff. Up to now, some sloping agricultural land technology - SALT pilot project have been implemented in the area, resulting fair success.
- The traditional leadership structure in Co Tu villages exists side by side with the national political leadership structure. Accordingly, all the villages have a Party cell and the Vice Head/Chief of the village, Police officer, Women's Union, Farmers' Association, Youth Union, and National Fatherland Front. They all participate in different rural development issues in the villages.
- According to the household survey result, social organizations are viewed as having most success in improving livelihoods of local people includes: District Agriculture Extension Centre of Nam Giang and Tay Giang districts.
- In 1996, WWW Indochina Organization funded Quang Nam Forestry Control Department to conduct surveying Sao La (one rare and valuable animal specie), the results of the survey have been proclaimed to show the distribution of this animal on Dong Giang province.
- In 1997, National Forestry Control Bureau, Forestry Planning and Surveying Institute, Ecology and Biology Resource Institute, Biological Department of Ha Noi Training University and DaNang Training University cooperated together to survey wild animal in three districts: Dong Giang, Nam Giang and Phuoc Son. The result has shown 58 species of animals, 176 species of birds, 44 species of and 22 species of frogs.
- In 2002, Indochina Organization cooperated with Quang Nam Forestry Control Department to conduct surveying biological diversification in Ta Bhing area of Nam Giang district and Phuoc Son of Que Phuoc district. Nevertheless, results have not been proclaimed yet.

8. THE GOVERNMENT BUDGET FOR LOCAL DEVELOPMENT AND PROGRAMS SUPPORTING EFFORTS TO IMPROVE LIVELIHOODS AND IMPROVE ACCESS TO NATURAL RESOURCES:

The government budget for local development consists of assistance budget funded through National Target Programs for infrastructure development: transportation roads, school, clinic; agriculture development, agricultural extension training and social service access improvement: healthcare, education. Followings are the programs:

- Program 135 (Socio-Economic Development Program for Extremely Difficult Communes in Ethnic Minority and Mountainous Areas). In 2005, Program 135 provided Ma Cooih Commune with 450 MVND for improving local infrastructure. This amount was used for the construction and maintenance of sections of external village's roads and small bridges. These programs were carried out in poor mountainous regions thus the project impact zones also got benefit.

- Program 133 - NTP-PR (National Target Program for Hunger Eradication and Poverty Reduction) and the interconnected Program 139, which guarantees all poor households with free health care and free education for children.
- Forest and forestland allocation for the local people program to take care and protect have not been implemented in the project area yet. In coming time, this program will be carried out.

9. Community-based activities would be funded and strengthened if additional financing were made

Based on the household survey and consultation result of NIAPP, livelihoods restoration and health and education services are the priority of the local people. Thus, if additional financing were made available, the following community-based activities would they like to see funded or strengthened:

- Of total 110 household heads interviewed, 95 persons would like to see funded and strengthened for agro forestry extension, education and healthcare services, drinking water and sanitation, 15 persons would like to see funded for vocational training and infrastructure works.
- Basic training in management of compensation for productive use will be provided to those receiving cash compensation. Because they are not accustomed to saving and investing, some have bought luxurious goods, while others have wasted it on drinking. There are 98 persons interviewed reported like that, the other ones with higher education level said they have invested in cattle and pig raising.
- Issues land use right certificates to male and female heads of households for the permanent agricultural lands, and to the village for the communal agro forestry lands.
- Agriculture and livestock extension services will include extension knowledge on upgrading traditional skills and appropriate new skills in farming and husbandry.
- Fisheries and aquaculture development program since at present the local people have not taken this potential resource yet.
- Village Forestry Development and management Program
- Community health and education development
- The capacity building training for affected people. Increased knowledge of the APs would result in effective use of resources provided under the resettlement plan and livelihoods activities.
- Electricity has come to all most communes but electricity price is rather high in comparison to household's income, thus not all households can use electricity. Power line and auxiliary equipment are not in good condition and electricity source is not available in all time caused disruption of electricity supply that make difficult and harmful for electricity users.

Also there were differences between the people in the different impact zones preferred:

- People living in the reservoir area wanted that they should receive support from the project as resettled people because they had suffered loss for sharing their land, public properties with new comers.
- People living in the resettlement area who must relocated and suffered many difficulties to stabilize their life, want to be benefited more from the project, for example they hope their children, when they are grown up, will be trained and accepted to work for the power plant to get more income and have a splendid future. Compensation for land lost should be by land of the same quantity and quality, not by

money because they have money but they could not buy land and money have been used for other purposes some time caused harmful.

- People living in the downstream zone (after power plant) wanted to be supported finance and fish raising technique to develop aquaculture.

According to the survey result, a majority part of interviewed persons prefers the governmental authorities involved in delivery of additional supports, some interviewees prefer NGOs involved in. In addition, almost all women in the area wish the women's union to participate in these activities to ensure woman's interests. Women have to be promoted for active participation in all decisions regarding land resource allocation and management and address the problems of women in resettlement.

Regarding approaches, the local people want to participate in almost activities relating to them, from planning to implementation stages and have entitlements for monitoring - Down Top Approach. Formerly, almost implemented projects in the area were approached from Top to Down, thus they were not satisfied.

CONCLUSION

The compensation and resettlement program realized in the context, in which Vietnam didn't have concrete policies on compensation and resettlement and opportunity to access policy framework guiding compensation and resettlement of international organizations as Asian Development Bank. Thus benefits of the affected people of the project was not ensured, especially the right to have long term livelihoods restoration program and the right to be compensation of upstream and downstream affected people.

However, with exerting all strength of authority levels and affected people, up to now, compensation and resettlement work of the project have been completed and realized strictly. The people in the reservoir zone stabilized their life in the resettlement sites where infrastructure system (road, electricity, fresh water, school, healthcare station) have been invested rather well. People's knowledge also has been improved.

It is evident there will be some permanent socio-economic losses that can be offset by beneficiary-defined investments funded by a revenue sharing formula or other sources. Project affected people can be obtained benefits from 3 following types of benefit sharing:

- Sharing project service

Resettlement sites have been supplied with electricity but quality of service is not good: high electricity price, disruption of electricity supply (not available). Communities living along the reservoir perimeter also got electricity service but in more difficulty condition as they had made contribution for installing power line, transformer station. They not got financial assistance from the project as resettled people did. Thus, poor people could not get electricity utilization. In the future, compensation and supports should be provided for the affected people living around reservoirs and in the up and downstream so that they can use project service.

- Revenue Sharing:

Resettles have so many difficulties in the new resident places; the most difficulty is how to stabilize their life. It is quite clear that existing compensation rule is not ensuring a good life for them in a long term period, just a temporary measure. The project reserving a portion of its revenue for the resettled people will help them get an additional income and improve their living standard for a long term. The rate of sharing benefit between resettled people and the project should be discuss carefully in order to balance advantages of each side. May be a money amount extracted from revenue equal to 15 kg of rice/person and prolong for ten years is enough for resettled people to stabilize and develop their lives.

- **Non-Monetary Benefits:** Almost Project Affected People were interested to see new entitlement replace those that will be lost. They wanted to be provided entitlement replace all common property Infrastructure such as transportation road, water supply system, community hall, market, health care centre, post office and common property resources such as community forest, community grazing land that will be lost.

In fact, compensation is not equal to those lost. Land lost is not compensated with the same quantity and quality, even by money instead of. That is not good because money can not buy land, without land resettles could not ensure foodstuff for their life. The best way in compensation is land lost should be compensated by land, houses lost should be compensated by money and materials and let resettlement people construct their houses themselves. Constructed houses in resettlement sites were not fit with traditional customs of resettles thus, they complained a lot about their new houses and did not like to live in these houses.

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Itinerary

No	Date	Location	Content
1	11/4/2007	Ha Noi - Da Nang	Traveling
2	12/4/2007	Da Nang city	Worked with Hydropower Management Board No 3 (ATD 3)
3	13/4-18/4/2007	Song Hinh district in Phu Yen province	Worked on Song Hinh Hydropower Project in Song Hinh district, Phu Yen province (Household survey, consultation with leaders of district, communes and villages)
4	19/4/2007	Da Nang city	Worked with Hydropower Management Board No 3 (ATD 3)
5	Morning 20/4/2007	Dong Giang district, Quang Nam province	Worked with the leaders and related debarments of District People's Committee and then went to Ma Cooih Commune
6	Afternoon 20/4 - 24/4/2007	Ma Cooih commune	Conducted household survey at Ta Reng and A So villages

7	25/4/2007	Da Nang - Ha Noi	Returned to Ha Noi
8	From 26/4/2007 to now	Ha Noi	Data processing and drafting report.

Appendix M: Generalized findings across the three rapid appraisals

The following is provided in interim report-2

- Poverty rates and food security concerns are uniformly high in areas around the three projects, especially in the upstream zones. These areas are also legally designated as “areas of difficult or extremely difficult socio-economic conditions”. A high proportion of people living in the project impact zone are legally defined as ethnic communities, well over 60 percent.
 - The average poverty rates in Dong Giang district where A’Vuong is located is 54%, almost double the national poverty rate, now just below 30 percent.¹ In some communes the poverty rate approaches 70% (e.g. 68% in Ma Cooih commune, 65% in Dang commune).
 - Food security is also an issue. The official household survey for 2005 shows that 70% of households in A’So village and 75% of households in Ta Reng village in the A’Vuong project area do not have enough rice to eat for the year and malnutrition is a problem. People must rely on subsidiary crops like cassava for their staple diet.
 - The poverty rate in Song Hinh, where the hydropower project was completed four years ago still stands at 52%, on average - not much better than A’Vuong. The poverty rates of some villages surrounding Song Hinh also remain very high (e.g., “Kit, Suoi Dua and Thon 1, 2, 3 villages in the Song Hinh reservoir zone was extremely high at 70%”).

The appraisals suggest that help to reduce the exceptionally high levels of poverty would be highly welcome by local people.² People felt benefit-sharing mechanisms are suited to this need and are well-justified on the basis that local communities now bear a disproportionate amount of the costs of hydropower development. The guidelines thus propose linking benefit sharing to targeted reductions in poverty rates in the project impact zone, at least until provincial or national average poverty rates are reached and thereafter meet evolving local development needs.

- The appraisals show how subsistence strategies in the project impact zones remain largely based on multi-purpose utilization of available land, forest, water and biodiversity resources. The relative contribution ecosystem services make to dietary and other household needs, and cash income, vary. Most people felt the resource base has, or would come under increasing pressure from the hydropower project in their area.
 - As expected, the ecosystem services that people most rely on, forest, land or water based services, vary depending on local circumstances and the local natural resource base (e.g. suitability of the land for cultivation, quality of forests, pressures leading to pollution or land degradation etc.).

¹ According to the criteria of poverty line applied in 2005 (income per person/month below 200,000 VND),

² It was not possible to say conclusively from the rapid appraisals whether people living in the project impact zone were left in poorer status overall because of the Son Hinh project, or to say the extent to which livelihoods had stabilized around pre-project conditions. Certainly, there were

- Cultivation and livestock husbandry account for about 50-70% of household income, on average. At the same time, much of the economy is not monetized. People rely on a variety of ecosystem services directly for daily needs
- Agro-forestry production and forest utilization is an important part of the livelihood system. Forest products are collected mainly for self-consumption, though some households sell amounts they collect that are surplus to their own needs.
- Activities like fishing, hunting, and the collection of forest products provide vital food sources and materials for household consumption, and some cash income.
- The degree to which ecosystem services are relied on for household needs and for cash income (the balance) depends on factors such as location as well as the opportunity to sell goods and materials, and of course household preferences for how people earn cash.

All the factors clearly showed that natural resource access is highly important to the livelihood, culture and well being of people living around hydropower projects, and will for the foreseeable future. The direct and indirect impacts that hydropower projects have on all types of resource access are seen as important. Benefit sharing programs can facilitate new ways to enhance access to resources, where it is feasible, and provide the means for people to adjust to changes in the local resource base, recognizing this is a longer-term process.

- Adverse impacts of the construction and operation of hydropower projects are felt (or expected) throughout the project impact zone, not just for displaced people and in resettlement areas.
 - This finding is consistent with regional and international experience.³ People living upstream and downstream of Son Hinh say there was a measurable decline in fish productivity in the four years since the project was commissioned. They said this had reduced fishing income for many households locally as well as the amount of fish protein available for local needs (reductions of between 30 % and 60% were cited).
 - However, no scientific baseline studies were reportedly available to accurately measure the decline, or attribute this reduction to the dam alone, or to some combination of factors (e.g. to a change in fish species composition due to the dam blocking high-value migratory fish species, or to river water pollution, or to non-sustainable fishing practices).
 - No technical support was reportedly available to deal with the sharp drop in fish productivity of the reservoir Son Hinh that occurred after what appeared to be an initial, very successful start to fishing in the newly created reservoir in the first few years. SIDA had supported the establishment of a reservoir fisheries program. What changed?
 - Downstream of Son Hinh, the local perception is the reduced river flows have led to more disease in their recession agriculture crops (lowland crops grown along the

³ Many people in the project impact zone who do not benefit directly from project services say they face reduced resource access and lower incomes, even if short-term programs to restore living conditions to pre-project conditions are mounted.

river margin fertilized by nutrient-rich flood water). Local people estimated that crop yield in these areas has reduced 20% as compared to pre-project conditions.

- On the other hand, on A'Vuong, recession agriculture is not a major concern of local people in the diversion stretch of river between the A'Vuong dam and the tailrace canal of power plant (some 13 km). The river shoreline is still steep, with rocky slopes and most people live on the upper plateau. People living in this stretch of river feel the main adverse impacts will be accelerated reduction in fish catch, already in decline due to pollution.
- In villages immediately downstream of Song Bung 4, in the dewatered diversion section between the dam and powerhouse local people believe that fish production will reduce. The EIA studies suggest this will be the case, by as much as 80 - 90% once the dam is impounded and project is operational.

These findings, taken together with the responses people had to the other key questions, which the rapid appraisal was structured around, confirmed the need to use the geographic boundaries of the project impact zone, as defined in the project EIA, as a starting point to determine what communes should participate in benefit sharing arrangements. It was vitally important to avoid a narrow focus on resettled people and resettlement host communities when thinking about long-term benefit sharing mechanisms.

- People were asked to identify the type of local tensions they thought the project had brought or could bring. On this question people talked about tensions in the resettlement process and concerns about the suitability of the resettlement area to re-establish farming livelihoods and services. Some talked about conflict between the host community and newly resettled households over land and resource access. People outside the resettlement areas talked about their need for support and worries that support should not just go to resettled people.
 - Clearly there are tensions over conditions in the resettlement areas. In Son Hinh, for example, people said they were concerned about the suitability of the land they were given for cultivation and access to fresh water.
 - The appraisal of the A'Vuong project provided a long list of concerns about some resettlement areas. And the RAP and EIA for Song Bung 4 identified numerous concerns to address related to reducing tensions during project implementation. At the same time people interviewed felt some problems might continue during the operation stage of the project, like the need to avoid re-igniting past land conflicts between resettlement households and the host communities.
 - The appraisals showed tensions could appear due to the difference in benefits offered to resettled households and those offered to the nearby host households, related to perceptions about fairness. In the Vietnamese legal system host communities who share land and other natural resources with the resettlement people are not entitled to compensation and assistance.
 - Looking at the wider project impact zone, people say they also suffered a loss, reduction or transformation of their access to natural resources and they equally deserved long-term support; and moreover, their children would suffer the same fate.

- Other tensions that came out in the appraisals related to the construction work force and additional pressure the influx of workers placed on local resources (e.g. hunting) as well as socio-cultural pressures including an increase in sexually transmitted diseases.
- In Song Hinh, some villagers said that during the construction period, the quantity of collected forest products had reduced about 52% due to illegal extraction of natural resources (hunting, forest products exploiting) thus reducing local people's resource access.

Benefit sharing can help reduce these tensions among the different groups under pressure to adapt to the effects of the project on the common, shared local resource base. People felt longer-term support will help stabilize livelihoods in the resettlement areas and treat everyone fairly in other areas of the project impact zone, and give equal opportunity to take advantage of the new development opportunity created by the project.⁴ While EVN may have adopted policies to increase investment in the host community there are no assurances that the IPPs will do the same once the competitive generation market is introduced.

- The preferences people have for investing funds from revenue sharing varied according to many factors. These factors included: the actual circumstances of the family or community; where the people lived within the project impact area; and how they were or felt they would be adversely affected by the project. Also the way people perceived the project would affect the future development prospects for their children was important i.e. what development opportunities were to be reduced by the project and what development opportunities were increased.
 - Because livelihoods are mostly agrarian and agro-forestry based, two common desires were (i) to use money to improve extension services and provide credit facilities for agro-forestry, cultivation, animal husbandry and fishing, and (ii) improve local infrastructure such as healthcare and family planning, sanitation, education and other services.
 - Though first preferences varied between households and between communities.
 - For example in Song Hinh, 85-100% of interviewed people in the upstream zone wanted to invest in public forestry development and management programs, linked to improvements in issuing forest land certificates and introducing community-managed forestry, as a first priority. In contrast, for people in the reservoir and resettlement areas, 80-100% of those interviewed wanted to see more investment in irrigation works for wet rice production as a first priority. Song Hinh provides both irrigation and electrical services. This illustrates that people want to enhance water and energy services from multi-purpose projects.
 - In A'Vuong, people living in the reservoir area wanted to receive support like that given to the resettled people nearby. They felt they had also suffered long-term losses from sharing their land and common property with newcomers. And they needed support to adjust to new living conditions by the reservoir and also to take

⁴ Revenue sharing was seen by many respondents as a way to even out the support and thus avoid long-term tensions. At the same time many resettled people felt a long-term approach was needed to stabilize and restore livelihoods and better place them on a development path, not just on a coping strategy (this in fact was confirmed in the Provincial workshop where it was reported the Provincial budget needed an estimated 10 years to stabilize livelihoods after resettlement).

advantage of the new development opportunities that were offered by the many socio-economic and environment changes brought about by the project.

- People living in the resettlement areas of A’Vuong wanted longer-term support, including training opportunities so that they and their children could have an opportunity to work in the power plant, or work in related semi-skilled jobs such as transmission line clearance and patrolling. Fishing people living in the downstream zone (after power plant) wanted support to help them develop aquaculture alternatives.
- Vocational training for job changes was often stressed by households who now received most of their cash income from fishing, especially in areas where fish productivity was in decline, or expected to decline rapidly when the hydropower project was completed.
- People were generally interested in the principle of payment for ecological services. However, they were not familiar with the terminology. It was recognized, for instance, using revenue-sharing funds to provide local incentive for planting trees in the headwater forests (as part of a catchment management strategy) would have beneficial impacts on the hydropower project (e.g. help to control soil erosion and sedimentation of the reservoir), and at the same time this would have beneficial impacts downstream such as helping the state to implement its flood management strategy.

Overall appraisals confirmed that people want different types of support according to their own needs and circumstances. This helps confirm that emerging good practice in other countries is appropriate in Viet Nam’s situation. That is firstly, in benefit sharing it is important to provide a menu of measures people can choose from as well as provide a bottom-up approach to select from the menu. It was equally important to allocate money in a flexible, transparent and fair way (incorporating social accountability and anti-corruption measures).

- Some people were concerned about the quality and take-up of electricity services in the areas around the project, especially upstream areas, and the ability of the poorest households to pay for local household connection. Just like poverty rates are different from national averages, electrification ratios in these remote areas are different than provincial averages.
 - The appraisals show that the electrification situation varies from project-to-project and also among different areas of the same project. Generally, downstream areas have more economic development, tend to be wealthier and have higher electrification ratios than upstream areas.
 - But this is not the whole picture. In the downstream zones of A’Vuong many communes have been electrified. But as yet only 33% of households have connected electrical service. Local people attributed this to the high one-time cost of connection that households must pay for and also tariffs, seen as very high in comparison to low household incomes.
 - Quality of services is an issue some people raised. Like many rural areas of the country, power line and auxiliary equipment are not in good condition and quality service is considered to be low. But again the situation was variable.

- Downstream of Song Bung 4 the electrification ratio is reportedly 70-80% and the quality of service good. Whereas in the upstream zone of SB4, many communes have yet to be electrified. The appraisal showed that people in this area expect the presence of the SB-4 project will lead to faster electrification in their locale.
- In Viet Nam electrification of the areas surrounding the project is not part of the hydropower capital budget. The appraisals also show that EVN generally ensures the resettlement areas and households in the host community are electrified.⁵ This is highly positive. However, this is accepted practice and not a law.

Taking into account the electrification situation in the project impact zone, as shown by the three appraisals and the priority given to ethnic areas and areas legally defined as experiencing difficult and extremely difficult socio-economic conditions the guidelines provide for the targeting of existing rural electrification budgets to communities adversely affected by hydropower projects. And depending on local preferences, the revenue sharing fund can be used to help low-income households with the cost of service connection, when they could otherwise not afford to do so. Plus provide power safety training and efficient lighting appliances and advice on efficient use of electricity to households in the area. The guideline is also a mandatory practice for all hydropower developers, including IPP investors to electrify the resettlement area, when the competitive generation market is introduced in 2009. This helps to ensure a level playing field for investors.

- People were interested in entitlements or permissions that would help to improve their resource access and enable people to diversify income sources. People also indicated a desire also for income tax deferral or other reduction in fees for start-up enterprises that would take advantage of the new development opportunities created by the hydropower project.
 - One action people frequently cited was ensuring that forest land-use rights are clarified and forest use certificates are issued according to the applicable law.⁶
 - Another example was awarding land-use rights to practice aquaculture, when there is interest and capacity for aquaculture.
 - Similarly, there was interest to develop co-managed or community managed reservoir fisheries as an alternative source of protein and income for people living near reservoir areas. But at the same time the problems encountered at Son Hinh need to be carefully considered.⁷
 - The appraisals showed that local people interpreted entitlements not only as an entitlement to improve resource access, but also in a more generalized way. Many

⁵ People that are resettled by EVN do not pay this connection cost. However all other households in the project impact area do.

⁶ Forest laws explicitly recognize the village community as a legal entity, entitled to participate in forestry activities. They can receive forestland use certificates and be allocated responsibility for management of forests. This is also essential to access credit facilities and would be important in benefit sharing. Likewise villages can be legal recipients of grants from benefit sharing funds to undertake community-driven initiatives. However, the adoption of this policy has been slow in many provinces where hydropower resources are developing.

⁷ Vietnam has civil society groups like the Management of River and Reservoir Fisheries Association (MRRF) advocating removal of administrative barriers to reservoir fisheries as discussed in the Interim Report-1.

saw entitlement as entitlement to receive public services and to benefit from government investment in local infrastructure like roads, and schools.

These points of view helped to emphasize the importance of looking at entitlements that people living in the project impact area could receive if there was a comprehensive approach to enhancing access to natural resources in benefit sharing mechanisms. It was also clear that many permissions and authority to grant entitlements were under the control of People's Committees.

- The preferences about what organizations should be involved in delivery of measures varied considerably. Some felt government departments were better, while others preferred to work with established mass organizations and unions.
 - These preferences reflected, in part, the type of support people wanted. For example, some wanted measures to invest in village infrastructure improvements that may best be done through increments to existing targeted programs like Programs 135 and 133.
 - Other support people wanted that were specific to a particular interest group were seen as best delivered through existing mass organizations such as the Youth Union, Women's Association, or Peasant Association.
 - Almost all women interviewed wanted the Women's Association to participate in the process to decide how revenue sharing grants were awarded and to participate directly in the delivery of benefits to ensure women's interests were safeguarded.

Overall the unanimous view was that a bottom-up process was needed for decisions on benefit-sharing mechanisms and the measures needed to match development needs in each area.

Appendix N: Field Report on the A'Vuong Hydropower Project as input to prepare the work plan for the Pilot

Prepared by the TA Local Consultants - Institute of Energy Science and National Institute of Agricultural Planning and Projection

Oct 2007

Part I. general introduction

1. Weakness dealing with adverse impacts of hydropower projects on local communities

Before the 1980s, stabilizing living conditions of resettled people was not considered to be an important issue in comparison to the construction work on hydropower projects. The social and environment dimensions of sustainable development were given low priority. As result the lives of many people who were involuntarily resettled by hydropower projects was often very difficult. Many households even abandoned the resettlement sites they were given to move back to their old villages, if they could.

In recent years, practices for resettling people displaced by hydropower projects have improved considerably, but the scope of compensation and support offered to stabilize the lives of resettled people still remains backward – according to the views expressed by many local people. Similarly, little support is available for many other people adversely affected by hydropower projects who living outside resettlement areas. This is seen as a big drawback that undermines the development aspirations of local people.

Some of the criticisms that were voiced by people interviewed were:

- Defining PAP is not correct, narrow and limited to compensating for land loss of the resettles. People living in the area surrounding the reservoir and in the upstream and downstream areas are not considered as PAP and do not have their loss recognized and they are not given the support they need to help stabilize their lives.
- No attention is paid to value all the damages and losses that are important to the livelihoods and welfare of people.
- No attention is paid to needs of people who had not received licenses for land use rights that they would otherwise be entitled to receive.
- Compensation prices are not yet based on the market price or substitute values.
- The increase in land prices in resettlement sites due to more people moving into the area is not reflected in compensation, which makes compensation inadequate.
- Only cultivation land was compensated, while potential cultivated land is not. This creates ongoing loss and loss of potential future income.

- Planning of forestry at resettlement sites to ensure firewood, vegetable, fruit and raising land for resettlement people is not done comprehensively or at all yet.
- Compensation money can be delayed when local authorities use money for infrastructure construction or other expenses, which they feel is more important without consulting people who are affected by such decisions.
- Only paying attention for infrastructure construction and houses for resettlement people, while longer-term plans for developing and stabilizing the life of resettlement people were not considered, or not funded.
- Special funds to solve problems in a timely way are not established and there are no financial resources or financing mechanisms readily accessible to resolve unanticipated problem, which always arise.
- Resettlement people, as a result too often fall into deeper poverty, especially after compensation money is spent quickly or wasted. Moreover, the lives of their future generations are compromised because of the lack of production land.
- Planning resettlement sites is not always suitable to traditional customs of people: e.g. large hanging houses with large gardens were replace with small bickhouses very close to each other in tight conditions, without gardens and trees and not conducive to rural life.

There are general lessons and lessons from specific-projects:

- In general forests are valuable natural resources that take a long time to form, thus when forests are there is no immediate replacement. Moreover the quality of afforested land cannot be compared to natural forestland both in terms of biodiversity and ecosystem functions and value to the socio-economic system in rural areas and human cultural values. Paddy rice lands, which people have cultivated for a many years can not be re-created with the same quality in any limited timeframe. At resettlement sites the households that receive poor quality wet rice lands face greater poverty risks.

- Hoa Binh Hydro power plant: This project has made progress with the resettlement program, but until now there are still many communes that have no access to electricity services. Thus people's development needs and aspirations are not assured. The Government decided to leave the entire of the resource tax (at about 80 billion VND per year) for Hoa Binh and Son La Province to support project affected people, but there were a part of project affected people were received this support because the investment, support for development were carried out by PPCs. Resettlement works in A'Vuong hydropower, according to the people interviewed, have a lot of weakness and Quang Nam provincial authorities have added 3 millions VND to resettlement. But the problems have not been solved yet. Dong Giang district is planning a project to develop agricultural production and to stabilize the life of resettles with total expenses of 40 billions VND, with a hope that up to the year 2010-2015 the life of the resettles could be stabilized.

Overall, because project affected communities - in the wider definition of affected people – disproportionately bear many of the direct and indirect costs of hydropower that serve the interest of the whole country, they should enjoy priority support in the Government's local

development programs and they should have a fair share of the benefits of hydropower development.

2. International Experience.

Since the mid-1980's, benefit sharing concepts have been put in place in different countries around the world. Since 1990, some projects supported by the World Bank had accepted resettlement projects as actual development projects and benefit sharing mechanisms have been introduced into the project planning and designing steps.

Many developing countries such as China, Colombia, Brazil, Nepal and the Philippines have set a policy to reserve a proportion of electricity revenue for resettlement people and the "host" people for the project, not just the host people for the resettlement. The law No 7990/89 of Brazil pronounced that 6% of electric revenue paid for affected municipalities and districts while in Colombia's law the rate was 4% for people living in the watershed and to introduce sustainable catchment management. China practiced benefit sharing not only for resettlement, people but also for host people in resettlement sites. In 1981, this country established "Reservoir maintaining fund" by extracting one RMB on each 1000 Kwh to support resettlement people, meanwhile diversifying benefit sharing styles: resettlement people used their enhanced entitlement on water resources for domestic use and irrigation, accessing to electric services, fishing in reservoirs, doing navigation transport services, sharing electric revenue, enjoying benefits from infrastructure works and working for project.

3. Benefit sharing approach evolving in Vietnam

The Government of Vietnam is collaborating with the Asian Development Bank on a Technical Assistance Project (TA) entitled Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects in Vietnam. The electricity Regulation Authority of Vietnam is the Implementing Agency of the TA. A draft guideline on Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Projects in Vietnam has been developed as part of the TA. The intention is this draft will be pilot tested and improved before it forms the basis for the necessary legal instruments for benefit sharing.

This Decree provides for the equitable sharing of benefits arising from sustainable development of the nation's hydropower resources. The mechanism it establishes for this is a long-term revenue sharing arrangement between the main consumers of electricity services in towns, cities and industry and the local communities hosting hydropower projects who are adversely affected by the project in their locality.

The Decree also regulates financing mechanisms and establishment of a revenue sharing fund; policies to target adversely affected people with improvements in electricity access and levels of service, within existing state and provincial budget allocations for rural electrification; policies for granting other entitlements that enhance resource access to offset permanent transformation, loss or reduction of such access in the project impact zone; and procedures to introduce benefit sharing considerations systematically in hydropower projects, starting with the up-front strategic planning and project planning activities.

The guidelines propose the State will encourage benefit sharing to advance sustainable development of the hydropower projects to help rebalancing respects of economic, society

and environment, taking into account the considerations in the nation's hydropower development strategy. General objectives are to:

- i. To maximize broader socio-economic development impacts of hydropower projects for all citizens inline with the state electricity development policy provided in Article 4 of the Electricity Act dated 2004.
- ii. To reinforce national efforts to close the income gap between urban and rural populations in a period of accelerated growth and modernization, in-line with government social policy, including priority for development of national minorities and boosting development in areas of difficult or extremely difficult socio-economic conditions;
- iii. To improve conditions for accessing international financing and ODA funds for the national hydropower development strategy, where the presence of benefit sharing mechanisms is attractive to donors and other financiers to reduce investment risk or controversy, in line with State investment policies;
- iv. To conform to domestic law and help meet Viet Nam's international commitments for sustainable land and water resource management, and
- v. To ensure the protection of state interests, rights and benefits of relevant organizations and individuals and the ecological environment in rural areas.

Forms of benefit sharing encouraged on hydropower projects

As part of a comprehensive approach to sustainable development of hydropower resources the State shall encourage and create enabling conditions for three general forms of benefit sharing; namely:

- i. **Equitably sharing of electricity services:** where households and communities adversely affected by hydropower projects are among the first to receive electrical services provided by the project, or improved electricity coverage ratios and reliability of supply, subject to local preference and power safety limitations.
- ii. **Entitlements to enhance resource access:** where adversely affected people and communities receive extra entitlements to enhance their access to other resources to expand income opportunities. These offset the permanent loss or reduction of resource access and other entitlements the communities enjoyed before the project.
- iii. **Revenue sharing:** where adversely communities who host the project and live in the project impact zones are entitled a share of the direct monetary benefits of hydropower generation, according to a formula and approach defined in regulations.

The consultant had compiled a draft decree on benefit sharing mechanisms and A'Vuong hydropower project had been chosen as a pilot point to test reality of the decree. Thus opinions from adversely affected people of the project are very important.

Part II: feed backs opinions from COMMUNITY meetings

1. Equitably sharing of electricity services

1.1 Affected people want to access electricity services and existing problems with supply dealt with better

People that were interviewed desired to enjoy all benefit sharing mechanisms proposed in the draft guidelines: equitably sharing of electricity services, entitlements to enhance resource access and revenue sharing.

In the three types of benefit sharing above, people preferred first type most. Nearly all of A'Vuong project affected people lived in mountainous areas in high mountains, density forest, difficult transport conditions, thus their capability in socio-cultural knowledge is limited and can not be improved unless they can access electricity services. They felt electricity not only brings a new and strong light source that is not affected by rain, winds and not harmful to human health, but also creates a chance for people to enlarge their views and social knowledge through using public communication measures. Televisions and radios help to improve moral life of people and enlarge their knowledge. With Televisions and radios, mountainous people step by step catch people in deltaic areas on culture and knowledge. Besides, electricity opens an opportunity for modern forms of production development such as rice husking, food processing, it also improves labor conditions by using production equipments as grass mower, plough and raking machines, etc. And it frees many women from labor chores so they can diversify their lives and way of living.

They are aware the electricity has changed the situation and development conditions of communes and villages, taking a dynamic role in developing local socio-economy and played an important role in local industrialization.

At present, electricity has come to the region. In resettlement sites, electricity service is good but in the rest of the project areas, electricity supply has many problems:

- Electricity price stood at a high level of 700 VND/ Kwh, limiting the capability of many people to use electricity, especially when poverty rates are 2-3 times the national average poverty rate. Because of the expensiveness of electricity, some people can only use electricity when it is really necessary and there are households that cannot use electricity at all because of lack cash. When the hydropower project further reduces their income, such as income losses when fishing opportunity is reduced this makes the situation even worse.
- In many places in the project area electricity has not yet come like 40 households in Dong and Pa Dau 2 villages, 15 households in Dong Rom village, Thanh My commune, Nam Giang district. These people feel left behind. The problem reportedly is the district lacked of budgets for electrical installation. In the past, people in Pa Dau 2 village were forced to remove from the temporary construction area of A'Vuong project thus the area was not installed electricity. When they came back, electricity installation for them is required. 30% of households in TaBhing commune could not access electricity because the grid lines were not completed, low voltage transformer stations were lacking and in some locations people had just come. In Alua resettlement site, Dang commune, Tay Giang district, 14 households were newly occurred because the separating did not access to electricity and even did not have their houses (The project management board had just planned not constructed houses).
- In TaBhing commune, electricity installation was delayed because compensation budgets were lacked.

- Electricity system was downgraded and destroyed, causing sudden electricity losses and accidents.
- Free electricity use for resettles in terms of one year is too shortage because their life is still too difficult. Thus after one year free, most of them could not pay for electricity bill after. Resettles in Pachepalanh resettlement site, Maccoih commune did not pay electricity bills for 8 months from 2007.
- Regulation of electric sector allowed electricity users to delay payment for in 2 months maximum was too shortage for poverty households.
- Meters installed in high pole made people here are unable to check their bill. When electric staffs read meters and did not show the data to people, they could not find any organizations to complain when they thought their electricity fee was over paid.

Overall electricity planning should link to inhabitants planning and production development. There was not electricity in the surrounding areas of A'vuong reservoir where in the near future should be production areas, thus local authority had proposed to install electricity soon to carry out the production farms and fishing in the reservoir when the reservoir is put in operation.

1.2 Prioritizing in types of support for households who have no electricity access and was in poor living conditions

If support is extended to improve electricity access, most of people want support in wiring and household connection to electricity and accessories. Under current laws household must pay for the connection. This was the first priority because this work required the most effort and expenses and could not be done by households who were living in poor conditions.

Next priority was support in paying the electricity bills in maximum 5 years, because resettlement people have many difficulties in this adjustment period. If the Government support is only one year, people could not pay in the next years. In this aspect, people in the upstream and downstream also want to be supported the same as resettlement people.

Priority No 3 belongs to support in technical training on energy efficiency and safety because the knowledge of mountainous people of electricity use was still low, lead to accident when using electricity. Support in purchasing of high efficient energy equipments ranked No 4 because using these equipments would benefit but it was not as necessary as accessing electricity was. Facilitating and supporting the investment of local power supply in off-grid areas were not an issue in A'Vuong because grid line can come to the entire of areas.

If supported, people wanted to use electricity freely in 5-7 years with maximum of 15-30kwh/month/household. For poor people who not access to electricity, 3-5 millions VND is wanted for them to use electricity. People suggested that when practicing exemption of electricity bills, it should consider the aims of using electricity. Only electricity used for lighting to serve living is exempted, used for production and business is not exempted.

On prioritizing to access electricity among project affected zones, people agreed priority No 1 should be for resettles because they had suffered the most losses: Lands, houses and agricultural products losses and must moved to new inhabitant places far from their relatives and natives lands. Priority No 2 belonged to the reservoir's surrounding people and host people even though they were not removed but their losses were also remarkable (their capability in using natural resources will be narrowed while they must share their benefits to resettles). Downstream zone was ranked in priority No3 because they suffered a heavier

affection in comparison to upstream zone: changing of water level causing many difficulties for their agricultural production and domestic water use. The last priority was given to upstream zone because of the least affection.

2. Entitlements to enhance resource access

2.1. Aspiration of people on resources exploitation

Most people prefer forestry and aforestation because forestry has been a major part of their livelihoods for long time. As long as other livelihood sources are not developed, forestry will remain central to their daily life. Aforestation aims to stabilizing livelihoods over the longer-term but their living conditions will be improved in the short-termed through supported budgets from aforestation. At present, resettle households have just been supplied with 1 ha forestry and a 500-square-meter area for paddy rice that make their life more difficult. To guarantee for their livelihoods people hope to be supplied with plant seedling and a forestation of 4 ha. The authorities of the Macooih commune, for example, is asking the provincial authority to supply more forestry land for the resettles to ensure from 2 to 3 ha forestry for each household.

The majority number of people want to use inundated lands and transfer the aim of using from forestry lands to agro-forestry or agricultural lands so that they would have more lands to grow food stuff crops and fruit trees.

Some people want to engage in reservoir fishing and aquaculture, and they suggest that reservoir fishing and aquaculture will be reserved free of tax for them. People from other regions should not be allowed to do fishing and aquaculture in the reservoir. They are interested in technical support on reservoir fishing and aquaculture and for purchasing the necessary equipment (boats, and fishing gear, etc).

A few people intend to take part in ecosystem tourism enterprises in reservoir area and newly inundated areas. But because this service is still new and difficult to practice, people interviewed had limited interest at this stage.

Macooih commune authority plans to make the reservoir area an agro-forestry and aquaculture area in conjunction with ecosystem tourism activities. According to this plan, 100 ha forestry can be created in the area above the maximum water level of the reservoir from the reservoir edge to Dang commune. At present this is covered with bushes and arundinaceous canes.

Also from the plan, the forest will be enclosed to raise porcupines, spotted deer, wild boars, razing cased fishes and fishing in the reservoir. Meanwhile, there is interest in developing local traditional trades and professions as Tho Cam (one kind of traditional textile fabric, colored by natural dye to bring colorful channel) weaving, rattan and bamboo carriers, local foods as Bamboo Rice, cake formed buffalo horns to serve people coming for jobs and tourist guests.

2.2. Requirement on technical support

A majority number of people were interested in having guidelines how to reasonably access, develop and use natural resources as cultivation technique on the slopping land, agro-forestry technique, cows razing technique, pigs, porcupines, spotted deer and specially razing of cased

fishes in the reservoir, simultaneously with mushroom making technique and how to apply ecosystem tourist.

A few people want to change livelihoods and explore other ways of earning a living that have not well-developed yet, but will develop in future. On the other hand, the local economy based is mainly agro-forestry. There are some opinions of the need for advice and guidance on how to form companies and business for young people to learn and how to apply the model in sites.

At present, training to increase people's production capability has been implemented in many locations. "Youth make a living" Village in Macooih commune opened a training course on Tho Cam weaving, but the result was not achieved because learners have not started to weave – mainly due to lacking of materials, equipments and a some uncertainty about marketing skill and doubt about whether their products can be sold. It was intended to open a course on guiding traditional weaving, local grass growing (elephant grass) to feed cows, porcupines/spotted deer/wild boar because these products are easy to sell through transportation to Dai Loc district through 40-km-long new road.

One kind of support some people wanted for each individual or household was learning skill themselves because their education levels are low. Learning skills are needed do they can master the instruction the get from experts. This has been a problem before. Most people want to gather in team and be instructed regularly because this way is less expensive, guiding many people concurrently. This would help with shared learning which is important in creating movement encouraging people to take part in activities with happiness and confidence that promises they will be more successful in their business and production.

3. About revenue sharing

3.1. Aim using supported money.

If affected people could receive financial support, the majority of people would invest in facilities to develop livelihoods and local businesses. This is because they think that if they use support money to buy furniture or expenses for essential needs, they can only solve their hardship temporarily, but in long term their living condition would not be improved. As result they want to invest in production development to create jobs, new professions, to increase production efficiency that will bring about good living conditions for them in future.

A few of people wanted to use support money for purchasing furniture and solving other sort-term difficulties. They are reasonable that if you have nothing to eat you will die, so how you can enjoy development achievements in future. These cases belong to households that are in very difficult situations such as due to sickness so they cannot do labor, or crowded children, people who recently had accidents and so their requirements are immediate on how to survive now.

3.2. Form of support

If PAP could receive support money, many of them wanted one-time support of about 10-15 millions VND/household. They prefer this form as they can invest in production or expenses without worry paying debt when term of loan is finished while their benefit is not gained. They thought that if necessary, they could borrow from banks even with a higher interest. There were some opinions to suggest that grants should be given in forms of saving books

with an amount of 300,000-400,000 VND/household/month in term of 4-5 years. Other opinions objected to giving out cash. They believed that if people got cash alone they might spend it for drinking, eating and shopping without doing significant things for the long-term.

A few people wanted loans with favorable interest rates and they thought that one-time support would increase depending passively on The Government, decreased independent and their strives in making life better. If only basing on supports, people can only solve immediately their requirements without improving their life for a long term.

If a loan is possible, people want very low interest of 0.1%/month with borrowing limits at least 20 million VND and a term of loan of 5-7 years. This amount at least is needed to ensure enough finance for production and business activities. For example, afforestation requires about 5 millions VND /ha so one household will need a budget of 20 millions for 4 ha, if raising cows, one calf requires 5 millions, one household raising 4-5 calf will require 20-25 millions.

3.3. Need on an external coach coming to guide how to prepare a grant application.

Many people think “Poverty eradicating and Hunger reducing Boards” in each commune can guide households on how to prepare a grant application or use a loan efficiency. Nevertheless, it is necessary to have an external coach of revenue sharing funds because this person has special knowledge to guide mountainous people in a culturally sensitive way. People want external coaches to be regularly accessible to people to understand their needs.

Some people feel communal staff can provide guidance in preparing grant applications. This can be good because people in need of guidance can regularly seek help that is accessible. The drawback is communal staff have limited experience and enthusiasm because of their existing workload. To overcome such weakness, communal staff need to be trained in advance and supplied with proper allowances for their work.

In fact many felt the best arrangement may be some form of cooperation between an external coach and the “Poverty eradicating and Hunger reducing Boards” in guiding people how to prepare a grant application.

Other aspects were

- Some people want to be guided whenever they needed to prepare a grant application.
- Others wanted guiding quarterly.
- Most people prefer public dissemination in commune or village meetings. This would be efficient and people could share knowledge. To avoid not practicing after attending guiding, external coach should carry out gathering people’s need of guiding before organization of guiding meetings.
- Some of people want to submit their grant applications to external coach. They think that external coach will correct their grant applications and submit immediately to Benefit Sharing Council not too late or delayed as they submit to other organizations. There is opinion that submission to external coach will be missing because they only transfer grant applications to Benefit Sharing Council on fixed time.
- Some of people want to submit their grant applications to commune people committee as they believe that their grant applications will not be missed. Nevertheless they are

also afraid of being late because staff of communal people committee only submits their grant applications when they have other works in combine.

Most people propose to set up an information office in location so that people can ask about the way of preparing and submitting grant application directly.

3.4. About representatives of PAP in the Benefit Sharing Council

Most agreed the vice president of commune people committee who was in charge of commune economy was the best choice as the commune representative on the Benefit Sharing Council. Such persons have the capability, knowledge and understanding of local production and business situations and people's needs and difficulties. Thus his or her opinions in the Benefit Sharing Council will be close to reality and more accurately reflect the needs, and aspirations and worries of the people.

The second representative that people prefer to be their representative in the Benefit Sharing Council was a person from Woman's Union. This because the Woman Union is a prestige mass organization, operating actively in eradicating hunger and reducing poverty movements, having experiences in fund management.

3.5. When women are the beneficiaries, what type of activities should be support in priority?

Most women wanted priority placed on dissemination of information for family planning. It was felt that control of the birth rate would help women in increase their health and allow them more time to take part in socio-economic activities, increase their social understanding and income and thus improving their families and their own living conditions. They thought that healthcare improvement was helpful but it was only part of the answers. The main pressure sustaining poverty was the uncontrolled birth rate.

A few people gave priority for women's healthcare improvement; they felt that healthcare improvement is necessary including annual healthcare examinations, better medicine supply and healthcare protection guidance.

3.6. Equitability in support

To assure the equitability of support from revenue sharing funds, the majority of people didn't choose the way of same level for each person in all households because in a family with many children even small children, capability in labor forces will be limited and production efficiency will be less that make household difficult in repayment of loan.

The majority of people wanted it the same way, as all the households are poor. If it supported some households only, the rest would complain. If support in form of loan, not in grant, it should base on loan requirement. Households that do not have loan requirements should not be pressed to get loans. Households of old and weak people and too poor households are also not forced to receive loans because their capability in repayment of loan is difficult.

A few of people agree to divide support based on loan requirement of each household. If it still supported when households had not had needs, the loan would be wasted and used for wrong goals.

There are no opinions on support depended on monthly income of household because the revenue sharing fund is not hunger rescue fund but a fund bearing development dynamic, support bearing assistance not giving without returning.

3.7. About criteria to accept grant applications

Most of people did not have any opinion on the proposed criteria. Some felt the ceilings levels for grants were not needed. They thought loans should not be limited. Ceilings may be correct for a category, but not for an individual. If a household wanted to do business on a large scale the ceiling should meet their loan requirements. Some felt it would be not necessary to base on reality local situation when support because a production could not develop in a commune but one household could do it successfully.

3.8. Support priority order in local infrastructure construction and local activities.

Most of people want to use grant funds for local infrastructure construction because good infrastructure will facilitate production development, cultural exchange, and improve moral and substance life of people. People hope that when constructed Song Bung 4 hydropower, the road linked Dong Giang to Nam Giang district, approximate about 40 km would have formed instead of present roads about 140 km through Tay Giang and 70 km through Macooih.

A few agree to support local activities as social-cultural activities, education, healthcare, mass organization activities with a reason that infrastructure have been rather developed thanks to programs as 134 and 135. Thus local activities need supported to increase people knowledge, help them master production techniques, open new business and improve their living conditions. Development of mass organizations will take a typical role in production and saving, birth control and social evil prevention movements taking a part in improving moral-culture and substance life of people. People want Guoil house will be constructed so that communities have a place to enjoy and meeting. They complain that the district budget reserved for cultural activities was so little, only one million VND per year, that was not enough for drinking tea when meeting. There is only one culture staff while they need at least three persons. Youth Union also needs support because its activities can cooperate with cultural actions.

3.9. Support priority order in social activities

People reserved priority No 1 for medical check-up yearly for PAP, support amount of 50,000-60,000 VND/person/year with a reason that only when people have a good health, they can carry out production activities, keeping their children and taking part in sport and cultural activities.

Support for poor pupils to overcome difficulties ranked priority No 2 aiming at training future generation with a high technology and education level to meet local development requirements in the near future. Support amount of 30,000-40,000 VND/person/year.

Support for teacher in remote area with poor condition ranked priority No 3 because teacher's salary is rather high in comparison to other staffs. Support amount of 10,000-20,000 VND/person/year is reasonable.

The final priority belongs to sport and cultural activities. Support amount of 5,000-10,000 VND/person/year.

3.10. Priority rank for local activities.

Most of people reserved priority No 1 for jobs creation scheme. For a long time, people have been living mainly based on agro-forestry cultivation, a production form with a low economic efficiency. Their living condition is very difficult; especially resettlement households who have just moved to new settle sites, their life have not been stabilized. Creating jobs to people that mean bring foods and clothes to them, helping them overcome immediately difficulties and ensuring them a good long life in future. Support rate accounts for 50-70% of Revenue Sharing Fund.

Most of people reserved priority No 2 for healthcare facilities for Local Healthcare Center. Support rate accounts for 20-30% of Revenue Sharing Fund.

Education support (talent pupils having difficulties, education infrastructure improvement) ranked priority No 3 with a reason that education network have replied remarkably training requirement and teacher's salary has rather well. Support rate accounts for 5-10% of Revenue Sharing Fund.

The final priority belongs to local mass activities (Youth Union, Woman Union...). Although these organizations take an active role in movements as "A forestation", "Youth make a living", "Birth control"...but its necessary cannot compare to the above activities. Support rate accounts for 5-10% of Revenue Sharing Fund.

Part IIIi: feed backs opinions from district officers
1. Capability in implementing types of benefit sharing.

Among the three types of benefit sharing, equitably sharing of electricity services and entitlements to enhance resource access was ready to be tested on the A'Vuong project. Revenue sharing can only be applied later, when the decree was approved by the Government (unless special financing arrangement for the pilot project are made). Equitably sharing of electricity services should be implemented soon and perfectly. The best way is support 100% electricity bills for home electricity consumption in a long term until living condition of resettlement people reached the one in other regions. If the support in electricity utilization were not done by the Government but by other organizations, adversely political affections might be produced.

Areas affected by A'vuong project have been supplied electricity basically, implementing equitably sharing of electricity services here is upgrading the existing electricity grid, wiring and connecting to electricity accessories to areas where electricity not exist, training on energy efficiency and safety, supporting in purchasing high energy efficiency equipments and supporting in payment of electricity bill for resettlement people in minimum 5-7 years. Implementing budget extracted from resettlement budget of A'vuong project and from district budget in coordinated programs cooperating between programs 135 with resettlement program to improve infrastructure conditions for PAP. Difficulties were met if the implementation of equitably sharing of electricity services were limited by district budget. Shortage of budget for clearing plan caused delay in electricity installation, wiring and connect to electricity and accessories.

Entitlements to enhance resource access should be implemented soon to ensure living condition of PAP, especially resettlement people. To practice this right, authorities at all levels should carry on planning the inundated land use and the land surrounding reservoir and giving land use right to people so that cultivation of these lands can be implemented soon, in parallel with the establishment of reservoir and inundated areas fisheries programs and ecological tourist programs. Difficulties were also met if implementation of entitlements to enhance resource access were restricted by low knowledge of mountainous people. Thus, policies must be concrete to help people to understand and implement easily.

On enhance of entitlement to resource access, agro-forestry and forest access should be implemented first to ensure long-term living conditions of PAP while taking part in environment protection. Next steps are vocational training for jobs changes for income generation and income diversification, land use rights to practice aquaculture activities. Establishment of reservoir fisheries programs stood at final priority because the reservoir would have not been formed until the late of 2008. Deferment or reduction of local taxes and fees to establish alternative forms of income generation was not paid attention as these forms were difficult to practice in the areas. Start-up of local businesses based on eco-tourism for opportunities created with formation of reservoir and new wetland areas is also difficult to practice.

Along with enhance of entitlement to resource access, it was necessary to have plans to recover and protect natural resources. Revenue Sharing Funds should be a remarkable portion for a forestation and forestry protection.

Reservoir's aquaculture exploitation is difficult to realize, thus concrete policies needed to promulgate. Enterprises have licensed to use land for construction of power houses, dams and reservoirs thus on principle, they have rights to manage and exploit benefit from reservoirs

and affected people would not be capable to take part in practicing reservoir's aquaculture. On the other side, exploiting without law will destroy environment. In case households are allowed to exploit reservoirs, they must equip with full knowledge on reasonable exploitation.

2. Priority when revenue sharing.

For revenue sharing, loan and credit facilities of revolving nature as micro-credit schemes, loan programs would be good to test on the A'vuong project because these activities would supply financial sources for households to carry out production and business actions to generate their incomes.

Investment in expanding access to electricity services requested by adversely affected community's ranks priority No 2 in order to facilitate poorest households in their usage of electricity and safety because mountainous people are still not familiar with electricity use.

Grant contributions to community-based activities funded in part by a contribution in kind from local communities ranks priority No 3 in order to support programs practiced by Youth Union, Woman Union, which can be considered typical example for people to follow. Supporting cultural activities to increase moral life and fully grasp of people.

Grant contributions to increase local development assistance programs delivered through provincial or national typical programs ranks the final priority because these activities request a big capital which revenue sharing fund could not reply.

3. Priority when practicing local development programs.

The provision of agricultural and forestry extension services should be done first to solve difficulty in food shortage of people.

Construction of local infrastructure at village and commune levels should be next step to improve the transport condition, opening a chance for people to access electricity, healthcare and education services, making production developed and changing rural situation.

Training of commune cadres in local infrastructure development or service provision is a key issue for local development. A strong cadre crowd with high specialized and professional knowledge will help commune managing development programs effectively, training people on socio-economy activities with high results.

4. Priority in grant contributions to community-based activities.

First priority reserved for other national or provincial programs that require local contribution of labor. This is an urgent action to diversify income generation of people by using local labor in project construction stage, recruiting children of resettlement households to work for hydropower plant or doing reservoir maintenance works, managing environment when plant put in operation.

Second priority belongs to Youth and Women's programs. Support these organizations in order to facilitate its activities, make it strong hand in helping local authorities in mass propaganda and agitation. Without these organizations, authority's resolutions are difficult to expand deeply in people mass.

The final priority is to support cultural activities at communal level. Although its actions are not urgent as the two above priorities but it has a great important role. Developed socio-cultural activities make people happiness and engrossed in production activities, take part enthusiastic in movements constructing villages and communes and protecting beauty sports and environment. Thank to cultural activities, rural people's life is becoming better.

5. Priority on forms of supporting loan and credit facilities of the revolving nature.

First priority should be loan for groups of households because of high efficiency capital use, high loan return capability with a condition that all households in groups must have the same production activities, there are persons who can organize and lead groups and all members of groups have solidarity sense together making group's contribution and construction with a spirit: "if twinned, all members could enjoy; if it failed, all members would suffer".

Loan for develop household production was also paid attention as according to this loan responsibility of household also should be increased and they must themselves construct plans of production and loan returning.

Loan for local enterprises to develop income generation and job creation is less capability in practicing as other jobs besides agro-forestry production are very difficult to develop in location.

6. Revenue sharing funds.

Benefit sharing council should be established 6 months before the operation of each project, simultaneously nominate and approve the council members. Revenue sharing council should be a non-profit organization, must closely link to authorities at three levels, namely commune, district and province, without people from outside. 3 months after the operation of each project, it would approve the Charter. Benefit sharing eligible parties should include local authorities and organizations.

It is necessary to establish the fund management teams. One team at provincial level including 3 persons, one cashier, one accountant and one coach, work directly with Revenue Sharing Council and staff from commune and district teams. Establish one team at each commune and district in reservoir areas; number of members and function of team are the same as the one in provincial team.

It is also necessary to add a representative of planning department and provincial ethnic minority board in Revenue Sharing Council.

While maintaining its operation, because members of Benefit Sharing Council are persons having high education and knowledge levels, high position in society, its activities will be carried out in a favorable way. Nevertheless as they are concurrently in charge staff, their time for work is limited and their experiences in fund management are lacked. Other while, as affection by local characteristics, dividing revenue sharing fund for locations may be not done fairly by them. The reasonable term of the Benefit Sharing Council members is 3 years. If it were shorter, members would not have enough experiences to fulfill their tasks. If it were longer, it would bring corruption or abusiveness of power of benefit sharing members.

The determination of benefit sharing eligible parties should not only base on the EIA. Because the EIA had been done at the beginning of project construction phase, many newly occurred cases may be not accounted. For A'vuong project, the determination is using the results on affected communities of EIA to inform local authorities then get fit back and correct benefit sharing eligible parties mentioned in EIA.

Entire revenue sharing fund should not spend all on the PAP but reserve 20-30% of fund for newly occurred cases. If nothing occurred, the reserved money will be transfer to the next year fund.

Fund's fixed allocation: Local infrastructure 15%, making progress in agriculture, agro-forestry, aquaculture 30%, training for commune staff 5%, loan to develop household production 50%.

3 months advance notice to eligible parties for the preparation of grant applications is practicable. If time were shorter, parties could not finish their preparation; if it were longer, parties would despond.

Expenditures for administration, technical support and monitoring include purchasing equipments, stationary for office of fund, transport means for coach teams, work allowance for staff of fund, material and equipments for training, expenses for meeting, training should not exceed 7% of the total fund.

Benefit sharing fund allocation procedure of Benefit sharing council need to be monitored. Provincial people council can monitor it.

It is necessary to set up and train coaching team to help PAP in preparation of grant application. The sufficient annual budget (percentage of the revenue sharing fund) for their operation is about 2-3% of the total fund. Members of coach team should be persons who specialized on guiding loan application preparation.

The coaching team should work with the PAP in fixed time (quarterly is reasonable).

The grant application should be collected by the Commune Authority.

Only use one-time support with a ceiling amount of 15-20 millions VND for specialized cases as households are in too difficult situation or just suffer from accidents, etc. Should loan with soft interest to develop family-level business. The ceiling for the loan is 20-30 millions VND for a forestation and loan term of 10 years, 15-20 millions VND for aquaculture and loan term of 2-3 years, 10-15 millions VND for agriculture and loan term of 1-2 years, 10-15 millions VND for trade and loan term of 1-2 years.

Departments of Agriculture and rural development, Environment should participate in the allocation of the revenue sharing fund to different groups in the project impact area. Departments of Industry-Trade, Finance, Labor and Society War Invalid, Peasant Union, Woman Union should participate in the allocation of the revenue sharing fund to the different grant application categories.

The reimbursement of revenue sharing fund should be separated from the provincial budget.

Part IV: Feedback opinions from PROVINCIAL officers

2.1.1 1. GENERAL DISCUSSION.

The representatives of the workshop were highly concerned about benefit sharing mechanisms and reached the consensus on the realistic and necessary nature of benefit sharing. They also agreed that mechanisms should be implemented soon in order to bring benefit to the project affected people, because Quang Nam province has high potential for hydropower development.

Hydropower projects mainly located in the west of Quang Nam Province inundate nature forests (which take a long time to develop). Therefore the development of hydropower projects would affect not only the people but also the environment in upstream, downstream areas and the reservoirs areas.

In Vu Gia Thu Bon basin, hydropower development has taken 3.000 ha of land; of which 2/3 of the area is the nature forest (nature forests are a treasure and could not be replaced by regenerative forest of the same value). Therefore, it would be necessary to take research on the affect and influence of the lost of nature forest.

Benefit sharing mechanism is a mechanism to ensure equality and should be applied in all hydropower projects, and should not be limited to hydropower projects with an installed capacity above 30MW. There is a hydropower project with an installed capacity of 9 MW inundated an area of 300 ha.

Quang Nam had high potential for developing small hydropower projects. At the start of each project, everybody saw benefits from hydropower projects, but at the implementation time, the problems began to appear. In A'Vuong project, although it had had a large compensation expenditure to support the resettlement people. Quang Nam province itself still had to provide 3 billions VND for maintenance and stabilization of the resettlement area. Concurrently, Dong Giang District People Committee had to ask for 40 billions VND to support for resettlement people's life and livelihood stabilization. Their estimate is it will take affected people at least 9 to 10 years to stabilize there.

According to the Quang Nam hydropower development plan, the province will build up to 39 hydropower plants in the coming years. These plants will occupy a large areas of Quang Nam in which most of them are nature forest areas. Hence, the Quang Nam PPC advocates the need to replace the nature forest lost to reservoir inundation by regeneration forests.

Otherwise, hydropower projects also affect to the downstream areas (changes of the current flow, influence on environment and aquatic ecosystems), affect hydro-transportation and livelihoods of people in downstream area.

With project affected people, it is necessary to take into account the adverse affect of the project on wet rice cultivation, while it is very difficult to create a wet rice field in mountainous area.

Investor must invest in the infrastructure outside power plant (for the project affected people).

2. About equitably sharing of electricity services

The first form of benefit sharing (Equitable sharing of electricity access and services) is needed because most of the people in affected areas are poor and do not have enough money

to pay for electricity bill, but it should not be rank as the first priority because utilization of electricity is not the first purpose.

Quang Nam still has 14 communes with have no access the electricity. It is difficult to electrify in remote and mountainous areas because the complicated of terrain and the non-profitability of electricity business here. Therefore, DOI proposed the investor support for the electricity access and services for at least 2-3 communes in project area (by the first form of benefit sharing mechanism).

3. About entitlements to enhance resource access

Absolutely agree with the second form of benefit sharing (Entitlements for enhancing resource access), but it should clarify the entitlement for practicing aquaculture in reservoir area because until now, there was no regulation on this issue.

The Guidelines should emphasize more on riverhead forests protection by create one article on this issue.

Along with entitlement to enhance resource access, it is necessary to have plans to recover and protect natural resources. Revenue Sharing Funds should be a remarkable portion for a forestation and forestry protection.

Reservoir's aquaculture exploitation is difficult to realize thus concrete policies needed to promulgate. Enterprises have licensed to use land for construction of power houses, dams and reservoirs thus on principle side, they have right to manage and exploit benefit from reservoirs and affected people would not capable to take part in exploiting reservoir's aquaculture. On the other side, exploiting without law will destroy environment. In case households are allowed to exploit reservoirs, they must equip with full knowledge on reasonable exploitation.

It is also needed to look at an option to allow the project affected people to become stock holdings of that project to ensure long-term benefit of affected people and stability development of hydropower asset.

4. About revenue sharing

On the fix percentage rate for revenue sharing, Quang Nam proposed to use 5% due to the actual situation here, and they felt the percentage of 2% is quite low.

It should develop the reasonable sharing mechanism for resettlement people and for the people who host the resettlement to ensure stability development of their life. In these areas should add more preferential policy on electricity tariff.

Benefit sharing mechanism should be applied on all hydropower projects as one of hydropower plant's obligations in generating electricity to share the benefit between the beneficiaries in city and industrial zones with project affected people who lost their land, home and resource entitlement for development of hydropower project.

It is necessary to review the reasonable of 2% of fixed percentage rate of hydropower project.

It is necessary to develop an assessment and monitor mechanism for benefit sharing to make effect on the utilization of grant. The developed mechanism must be in accordance with actual, ensure the transparency to avoid the difficulty for the both side (the executive side and the beneficiaries) in implementation in the future.

It is needed to identify clearly the relevant group, including the beneficiaries in city and industrial zones and project affected people who lost their land, home and resource entitlement for development of hydropower project. Benefit sharing Mechanism will be carry out in parallel of the “pass-through” tariff which will pass all the generation and distribution cost to the end-consumer.

With people in reservoir area, ongoing support to stabilize their lives is very necessary. The development of benefit sharing mechanism will be helpful for this issue. Nevertheless, it is important to avoid the development of a complicated mechanism with many procedures which are possible to become an obstacle when the project affected people wanted to approach to benefit sharing mechanism.

It also needs a reasonable consideration to the finance delivery of the revenue sharing fund because of its important and complication. If it is not transparency and simple, it would raise people’s wonder and query in benefit sharing mechanism implementation.

The allocations of investment purpose and grants of revenue sharing funds must assure that people do not lose other grants or development assistance that they would normally receive.

Notwithstanding, the procedure of the reimbursement of revenue sharing funds must be public, transparency and take a shortest time. The grant application procedure in fact should be simple to avoid the abusiveness of the mechanism to gain benefit.

Deducting money from electricity selling to form revenue sharing funds will increase consumption electricity prices thus affecting to all electricity consumption households in rural as well as urban areas. Opinions of these households on revenue sharing funds should be considered and revenue sharing funds should be approved by the National Parliament. Should have concrete and clear stipulations when dividing revenue sharing funds and should reserve a great portion of the funds to support affected people. In a forestation plans, should have clear stipulations to reserve one part of budget of a forestation for households doing a forestation avoiding only reserving for enterprises. Support money should be managed closely, avoided losses and must come to people’s hands. The way of money support must be simple, avoiding complex procedures to cause troubling the public. To facilitate so that money can come to people as fast as possible.

The Benefit sharing Council should not supplement change more members after establishment. It should be the responsibility of all level local authority in fund management and allocation.

The establishment of Benefit sharing Council and revenue sharing reimbursement should be clear, simple and fast. In other words, the time to process the procedures and allocate grant to project affected people should be the fastest and be able to avoid loss, corruption and/or abuse of power.

To determine the reimbursement of revenue sharing fund, it is necessary to clarify fund's origin, whether money for the fund are from Government budget or it just the money donated by business. If belonging to Government budget, the fund should be reimbursement by government reimbursement law. If belonging to donation of business, the fund can be manage separate from the provincial budget.

The management and utilization of revenue sharing funds: This fund is the support source for project-affected people. Therefore to maximize the benefit of affected people, the Decree/Circular should clarify this issue. Moreover, it needs to identify the specific attribute of revenue sharing funds, was it one kind of State budget or not? If it was, it must comply with State budget utilization principle (Law on State budget) and the management and utilization of revenue sharing funds must be decided by Provincial People Assembly because of the reason above. The disbursement must be in accordance with Law on Construction, Law on Investment. On the other hand if it was not considered as a part of State budget, the revenue sharing should be strictly managed by Benefit sharing Council. In this case, the Benefit sharing Council must carry out the fund management and administration function.

Related to the disbursement of revenue sharing fund, if this fund was part of State budget, it would have to comply with the Law on State Budget. Because of the particularization of revenue sharing funds, we should study to find the solution to simplify the disbursement and reimbursement procedures, to ensure the shortest time to deliver money to affected people.

Hence, Benefit sharing council must ensure to strictly manage these funds but not raise the administration cost. In daily work, benefit-sharing council should refer to Law on Labor, Law on Investment, etc... to support for the fund management.

Related to the scope of application, with its own attributes, benefit sharing mechanism should be applied in all hydro power project, instead of limited to projects which have install capacity upper than 30MW as in present. Quang Nam PPC absolutely agreed with the way to implement this mechanism by carry out the pilot project first, then issue the Decree in the entirety of Vietnam.

As assignment of Quang Nam PPC, Quang Nam DOI, DOF, DONRE, DARD, Ethnic Committee are responsible to cooperate with ERAV in develop the Decree/Circular on Benefit sharing Mechanism and in implementation of the pilot project in A'Vuong, Quang Nam.

Part IV: conclusions and recommendations

Community meetings have been completed at representative communes of affected areas. Attendances including commune staff, representatives of mass organizations, elderly, the heads of villages and affected people reflect the representative characteristic of affected community. Meetings have been done with opened atmosphere, friendly encouraging attendances to express their view openly, enthusiastic on mentioned questions. Interviewing district staff have been done favorably thank to enthusiastic assistances of these staff.

Summing up opinions from community meetings and district staff we have some recommendation as follow:

1. About equitably sharing of electricity services

Equitably sharing of electricity services should be implemented firstly through reducing electricity price from 700 VND/kwh to 5-600 VND/kwh, maximum of 20-30kwh/month/household, paying electricity bills for 5-7 years, wiring and connect to electricity and accessories for 40 households in Dong and PaDau 2 villages, 15 households in Dong Rom village, Thanh My commune, Nam Giang district, 14 households in Alua resettlement site, Dang commune, Tay Giang district. Preparation of capital for plan clearing so that electricity installation can be implemented fast. Upgrading electricity grid and support 3 millions VND for each household to access electricity, pay electricity bills in one year and support 1 millions VND each household for host people, support 1 millions VND for poor households in up and down stream to access electricity services.

2. About entitlements to enhance resource access

Resettlement people need to be supplied with plant seedlings and given 3-4 ha of forest. Planning inundated land and transfer forestry land use aims to agriculture to increase foodstuff crop and fruit tree land for people. Reserve free tax exploitation of reservoir for local people. Support techniques on reservoir fishing and aquaculture and capital to purchase fishing equipments. Guiding how to reasonable access, develop and use of natural resources as slopping land cultivation technique, agro-forestry technique, technique raising cow, porcupines, star deer, wild pigs, cased fishes. Training how to change livelihood and transformation professional. Training should be done quarterly.

To facilitate for people loan without interest or very low interest of 0.1%/month, the ceiling for the loan is 20-30 millions VND for a forestation and loan term of 10 years, 15-20 millions VND for aquaculture and loan term of 2-3 years, 10-15 millions VND for agriculture and loan term of 1-2 years, 10-15 millions VND for trade and loan term of 1-2 years.

3. About revenue sharing

Send coach team in co-operation with “Hungary cancel and poverty reducing Board” to guide people how to prepare grant applications. Guiding should be done quarterly with form of public propaganda, better gathering people requirements before guiding. To establish a transact office at commune level to collect grant applications. Vice president of commune and one person from Woman Union will be representatives for affected people in revenue

sharing council. Support should be equal for each household. Should base on local capacity to successfully implement the measures proposed in the grant application. Revenue sharing fund reimbursement should be separated from the provincial budget.

4. Implementing measures

It is necessary to have close cooperation between Quang Nam PPC and ERAV in testing the implementation of benefit sharing mechanism through the pilot project in A'Vuong to help finalize the legal instruments.

This is the new issue in Vietnam; therefore, this mechanism should be gradually amended to be accordance with the Vietnamese factual situation.

It is necessary to develop an assessment and monitoring mechanism for benefit sharing to make effective utilization of revenue sharing grants. The mechanism must be in accordance with the actual development needs and situation, ensure transparency to avoid difficulty for both sides (the executive side and the beneficiaries) in implementation of benefit sharing in the future.