

Involuntary Resettlement as an Opportunity for Development: The Case of Urban Resettlers of the Three Gorges Project, China

BROOKE MCDONALD

School of Social and Environmental Enquiry, University of Melbourne, Victoria 3010, Australia

MICHAEL WEBBER

School of Social and Environmental Enquiry, University of Melbourne, Victoria 3010, Australia
mjwebber@unimelb.edu.au

DUAN YUEFANG

China Three Gorges University, Yichang, Hubei, China

The restoration of livelihoods in the event of involuntary resettlement is commonly based on providing compensation to those who are displaced. This policy has led to a series of horror stories. For this reason, it is proposed that by conducting resettlement as a development project in its own right, the performance of resettlements can be improved and the benefits will accrue to the local population. The Three Gorges Project on the Yangtze River is the first project in China in which the policy of resettlement with development was translated into practice. This paper uses the results of a survey of urban resettlers in two counties to demonstrate that development policies have been unevenly applied across the Three Gorges Region and that in some counties the policies have had some success in maintaining and raising the incomes of resettlers.

Keywords: China, involuntary resettlement, Three Gorges Project, development, Partnership Support Programme

In the past, the restoration of livelihoods in the event of involuntary resettlement has been based purely on providing compensation to those who are displaced. The outcomes of these resettlements have been well documented around the world and provide a series of recurring horror stories. The concept of Resettlement with Development (RwD) was envisaged as a means of improving this record and avoiding the catastrophic failures of the past.

RwD is considered the ideal way to undertake resettlement throughout the developing world. However, few developing countries have included the concept of RwD in their national policies; the People's Republic of China is one country which has. Still, it was not until the Three Gorges Project (TGP) resettlement that this policy was applied. This paper explores how the ethos of RwD was translated into practice in the TGP resettlement. We consider the outcomes for those displaced by the TGP and address the question: 'Can the application of RwD generate benefits for those displaced by development projects?'

Background

It is estimated that each year around the world approximately 10 million people are displaced by development projects. Over the last decade some 90 to 100 million people have been forced to move from their homes, 40 to 80 million of whom have been displaced by large dams (Cernea 2000; WCD 2000). China, India, Brazil and Indonesia displace the largest number of people (Bhattarai 2001). Since 1949, between 18.5 and 20 million people were displaced by development projects in India and 45.1 million in China (Frugile *et al.* 2000). Owing to its magnitude, the incidence of involuntary resettlement clearly warrants close attention.

Although the number of people displaced by development projects is alarming, the impacts are even more startling. Most resettlements around the world have sent the livelihoods of the majority of resettlers into a downward economic trajectory (McCully 1996). Involuntary resettlement is commonly associated with the impoverishment of local communities, the destruction of their productive assets and the disruption of their social fabric (Cernea 1998). In India, almost three quarters of those displaced over the last four decades, some 15 million people, are in a worse predicament than before resettlement (Parasuraman 1999). Mathur (1995: 2) summarizes the implications of such projects with this statement: 'the labyrinth of broken communities, broken families and broken lives remains beyond numerical calculation'. Clearly, involuntary resettlement has been largely harmful for countless people.

The misery created by the involuntary resettlement of those people displaced by specific projects around the developing world is well documented. The general consensus is that involuntary resettlement is an ordeal in itself and that long after the painful event the outcomes for resettlers are grave (for discussion see Cernea 1998; Mathur 1995; Parasuraman 1999). According to Cernea (1997), the main impoverishment risks facing resettlers are: landlessness, joblessness, homelessness, marginalization, food insecurity, loss of access to common property resources, increased morbidity and community disarticulation. These eight risks persistently recur in involuntary resettlements around the world and need to be mitigated. Compensation was the traditional means used to avoid impoverishment. However, compensation mechanisms have come under increasing criticism in recent years (Cernea and

Kanbur 2002; McDonald 2006). The prevailing view amongst contemporary resettlement specialists and development theorists is that resettlement should be treated as an opportunity for development in its own right. This principle has been named Resettlement with Development (RwD).

Resettlement with Development

RwD is defined as: treating the resettlement of those forcibly displaced as an opportunity for development so as to improve their livelihoods after relocation. More specifically, 'resettlement operations should be treated as development projects in their own right, benefiting the resettler' (Cernea 1997: 1579). Cernea includes the mitigation of impoverishment risks and the construction of a new socio-economic basis on which resettlers' livelihoods can first be restored and then lastingly improved, so that their expected incomes exceed pre-displacement levels. In this sense, development is taken to mean something that is carried out rather than something that simply occurs. Finally, in order to qualify as development, a resettlement programme must centre around enhancing human capabilities and expanding social opportunities by addressing the social and personal constraints that restrict people's choices (WCD 2000).

The principle of RwD is widely accepted. The World Commission on Dams (2000) endorses the concept and has outlined the fundamentals of a 'successful' developmental resettlement policy. The World Bank, the International Finance Corporation and the Asian Development Bank (ADB) have incorporated this principle into their own policy frameworks. Many development agencies and international banks support the application of RwD by adhering to a voluntary set of standards for managing social and environmental issues which are closely aligned with World Bank policy (these standards are known as the Equator Principles) (Cernea 2005). These agencies include: the Department for International Development in the United Kingdom, Overseas Economic Cooperation Fund of Japan, Japan International Cooperation Agency, Inter-American Development Bank and the Organization for Economic Cooperation and Development. Some companies within the corporate sector, such as Shell, BHP and British Petroleum, also aim to uphold the principles of the World Bank's policy on involuntary resettlement, which includes the principle of RwD (Touzel pers. comm. 12 December 2003; Korosi pers. comm. 15 December 2003; Mifsud-Bonnicki pers. comm. 19 December 2003).

National Policies and RwD

Although the World Bank has been a central proponent of policy on involuntary resettlement, it is the policies of developing nations that are crucial to minimizing the impoverishment associated with involuntary resettlements throughout the developing world. World Bank projects, that would

be executed in accordance with the World Bank Policy, make up only a small proportion of involuntary resettlements each year. In 1993, it was estimated that of all the resettlements caused by dam construction worldwide, 3 per cent were caused by World Bank projects; and of all the resettlement related to urban and transportation projects, only 1 per cent were World Bank projects (Cernea 1997). Instead, most resettlement operations are conducted internally, within the borders of a state and are therefore directed by the regulations and legal framework of individual nations. Hence, the policies of developing nations are crucial to improving the record of involuntary resettlement.

However, formal policies and legal regulations are lacking in many developing countries (Cernea 1997). The ADB undertook a review of resettlement policies and practices in several developing countries in 1998. The review found that national resettlement policy is absent in Thailand, Malaysia, Pakistan, Nepal, Laos, Sri Lanka, Vietnam, Philippines and India (although state-level legislation exists in Maharashtra, Madya Pradesh and Karnataka) (ADB 2002; Bhattarai 2001). India has prepared several draft policies on resettlement and rehabilitation (one was adopted in 2004, but discarded shortly after). India recently announced the preparation of a new policy—two drafts are currently in contention. Sri Lanka has cabinet approval for a National Policy on Involuntary Resettlement (ADB 2001). Cambodia has drafted a National Resettlement Action Plan, recommending the promulgation of a national resettlement policy (ADB 2001). In Pakistan, a National Policy has been drafted (ADB 2002). Finally, in the Philippines, it was proposed that a national standard for involuntary resettlement be set (ADB 2002). However, compensation remains the sole basis for resettlement. In India, Indonesia, Vietnam, Laos, Pakistan, the Maldives, Bhutan and Nepal there is no provision for income restoration or rehabilitation (ADB 2002). Clearly, the concept of Rwd is not yet applied nationally.

Rwd in the People's Republic of China

Unlike most developing countries, the People's Republic of China established a legal framework and a variety of regulations to support involuntary resettlement some decades ago. These policies were born out of the legacy of failed resettlements throughout China and reflected the political environment of the time (McDonald 2006; for descriptions of failed resettlements see Jun 1997; Leng 1999; Li 2000). In 1952, China issued its first policy on involuntary resettlement, but it was later abandoned during the Great Leap Forward (Bizer and Ragsdale 1997).

The first proposal for Rwd occurred in the mid 1960s (Shi *et al.* 2001). However, it took almost 30 years to be formally accepted. In 1984, the idea of moving away from compensation-based resettlement towards Rwd was put forward by the Central Finance Leading Group (Shi *et al.* 2001). In 1988, the Water Law of the People's Republic of China was promulgated,

which called for the proper arrangement of the production and livelihoods of the resettlers (Shi *et al.* 2001). In 1991, the most authoritative legal document was formally proposed—the *Regulations on Compensation for Land Acquisition and Resettlement for the Construction of Large and Medium-sized Water Conservancy and Hydroelectric Projects*. Between 1993 and 1998, the evolution of China's policy on involuntary resettlement entered the Developmental Resettlement Stage (Li 2000; Li *et al.* 2001). During this period, the principle of RWD was incorporated into involuntary resettlement. Hence, resettlement in China is now viewed as a development opportunity. Given the frailty of national resettlement policies throughout the developing world, that China includes RWD in its policy is both unique and important.

With the inclusion of RWD into the regulations on involuntary resettlement in China, the World Bank generally considers that resettlement in China works well and even adds to project benefits (World Bank 1994). The World Bank cites China's policy of developmental resettlement as a model for other developing countries (Bartolome *et al.* 2000). It regards the policies and procedures applied to involuntary resettlement in the agricultural, energy and urban development sectors as 'sophisticated' and 'binding' (World Bank Operational Directive 4/16). Moreover, 'preferential policies' are used to highlight regions or projects that should be prioritized for general government assistance programmes to relocated communities (World Bank OD 4/16). Projects cannot proceed without resettlement plans approved by government regulators, and national auditors ensure accountability by reviewing project expenditures (World Bank OD 4/16). With most developing countries facing the reproach of many international organizations and academics in the field, the fact that the World Bank considers resettlement in China to work well and to even add to project benefits, is a milestone in the chronicle of resettlement experience.

RWD and Chinese Policy

The current Chinese policy on involuntary resettlement is complicated, although summaries exist of the main points (Bhattarai 2001; Heggelund 2004; Shi *et al.* 2001; Shi and Chen 2001). Essentially, resettlement in China is executed under 25 laws and regulations, most recently updated on 1 September 2006 (Schearf 2006). Of these, the main laws and regulations are listed in the Appendix. Specific reference to RWD can be found in State Council (1991: 3):

The State encourages and supports developmental resettlement, adopting a method of providing compensation and allowances in the pre-resettlement period and assistance for resettlers' production in the post-resettlement period and State Council (2001: 1):

During the period of TGP construction, the state will implement the development resettlement policy: The purpose of the TGP resettlement is to maintain

and enhance the resettlers' living standards and create necessary conditions for social and economic development in the TGRA by implementing development resettlement policy, using resettlement funds fairly, opening local resources reasonably and protecting the environment as well as making proper arrangement for the resettlement.

RwD is thus reflected in two National Regulations about involuntary resettlement in China. Although these are crucial to the application of RwD in planning and executing resettlement, the Regulations do not regularly translate into action. China, the country with the longest running national policy on resettlement in the developing world, has only formally applied RwD to *one* national project:¹ the resettlement of the Three Gorges Project (TGP) on the Yangtze River. The policy for the TGP is called *The Regulation on Changjiang Three Gorges Project Resettlement* and it outlines how RwD is to be applied. Among other items:

- A proportion of the revenue derived from electricity sales will be used to set up an assistance fund for the later resettlement period;
- A certain amount of tax revenue paid by TGP after its completion will be retained and allocated to Hubei province and Chongqing municipality and used to assist regional development and environmental protection;
- The concerned departments in the State Council, provinces, autonomous regions and municipalities should encourage well-known enterprises to make investments in the TGRA (Three Gorges Resettlement Area) in various forms and offer assistance in the respects of education, technologies, human resource management, information, funding and materials to the TGRA under the principle of learning from each other, mutual benefit, long-term cooperation and development together.

RwD in Action in the TGRA

RwD is an integral part of the planning and design of the resettlement in the Three Gorges. However, to transform RwD from policy to a practical part of the resettlement process the authorities devised two schemes: the Partnership Support Programme (PSP) and the Development Assistance Fund (DAF). The PSP was developed over the last ten years, through three phases. According to informants in the Three Gorges Project Construction Committee (TGPCC), the first phase is called 'one to one assistance'. The basic principle is that the richest regions should be partnered with the poorest counties in the TGRA to assist in the resettlement. In 1999, the PSP entered its second phase: 'economic cooperation'. During this phase, the relationship between the donor and the recipient is symbiotic. Companies are encouraged to invest in the TGRA as the market dictates and are not restricted to a specific county. The third phase is still under development, but may be termed 'sector development'. The strongest sectors of the TGRA are

recognized during this phase, in terms of regional comparative advantage: citrus, tourism, fishing, and animal husbandry. The developed areas in China are called upon to back these four industries financially under the guidelines of the national industrial plan. The expectation is that these industries will generate employment for the resettlers and boost the development of the TGRA.

The DAF is, according to TGPCC officials, similar to the PSP in that it mobilizes financial capital to assist in the development of the region. However, unlike the PSP, the money in the DAF derives from sales of electricity and is thus contingent on the operation of the TGP. As the dam is not presently operating at full capacity, such funds are not yet available. Once the dam begins to generate revenue, the DAF will be channelled into six main areas: production; living standards; education; health services; subsidies for resettlers; and vulnerable groups—the poor, the elderly and the disabled. Funds will also be directed into the four key industries also targeted during phase three of the PSP: oranges, animal husbandry, tourism and fishing.

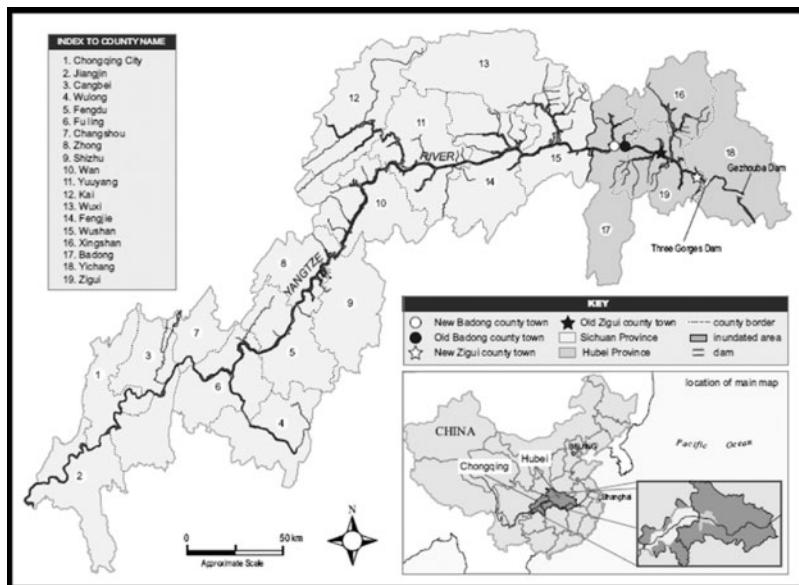
General Outcomes of Rwd in the TGRA

TGPCC officials state that, since its initiation in 1992, the PSP has funded the construction of 700 primary and middle schools in the region. Hospitals, roads and clean water have also been provided and 2,500 industrial projects have been established. In total, 16 billion RMB² has been invested through the programme. Moreover, by the end of 2002, more than 2,000 projects had been completed at a cost of 11,352 million RMB with social services accounting for 1,718 million RMB, laying the foundation for future development in the TGRA.

Although the PSP provides the funding to improve infrastructure and creates employment opportunities within new enterprises, the significance of the scheme extends beyond such tangible assets. It represents a transition from resettlement that is based on providing basic needs, to resettlement that uses big business to create opportunities for affected persons. For example, between 1993 and 2002, 21 provinces, 10 medium to large cities and more than 50 government departments invested in the TGRA—a sum equal to one third of the total compensation provided for the resettlement (TGPCC 2003). Contributions included: establishing enterprises and other projects; exchanging technology; extending the market; exporting labour; and providing training. In addition, many large companies established subsidiary enterprises in the reservoir region. Between Chongqing City and Yichang City nearly 100 ‘famous’ enterprises launched subsidiaries, which led to the region being called the ‘famous aisle’ or the ‘industrial aisle’ (TGPCC 2003).³ In this way, the Rwd component of the relocation is heavily funded by private business, which alleviates the financial burden on the State. However, to understand how Rwd works in practice, an examination of the PSP at the grassroots level is needed.

Figure 1

Location of Sample Sites



Methods

To explore the outcomes of RWD in the TGRA, surveys and in-depth interviews were employed. Persons eligible for resettlement live below 175 metres above sea level, along the banks of the Yangtze between the sections of Sandouping and Chongqing Municipality—some 2,000 km of shoreline (see Figure 1) (Jackson and Sleigh 2001). Chongqing Municipality extends from Chongqing city proper to the border of Hubei Province and accounts for 86 per cent of resettlers dispersed over 16 counties (Duan and Steil 2003). The remaining 14 per cent reside in Hubei Province. In order to gain a representative picture of the resettlement in the TGRA, we originally planned to cover both administrative regions—Hubei Province and Chongqing Municipality. However, the government of Chongqing Municipality did not permit independent researchers to explore the resettlement of the Three Gorges in the Chongqing section.⁴ Our research was therefore limited to Hubei Province.

To determine the differential effects of resettlement under RWD policy, data was derived from six sites in Hubei Province which had experienced different resettlement environments. Four counties were affected by the TGP in Hubei Province: Xingshan County, Yichang County, Zigui County and Badong County. As the aim of this research was to understand the impacts of RWD, two counties were selected that had: (1) similar levels of development

Figure 2

GDP per capita: Hubei Province

Source: TGPCC, 2001.

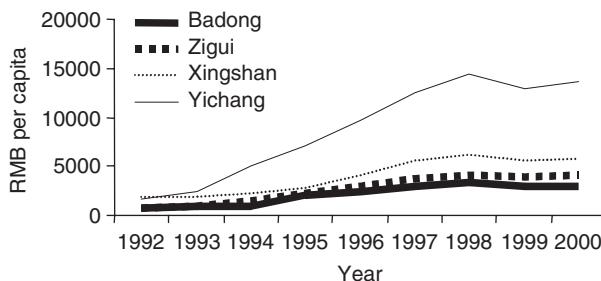
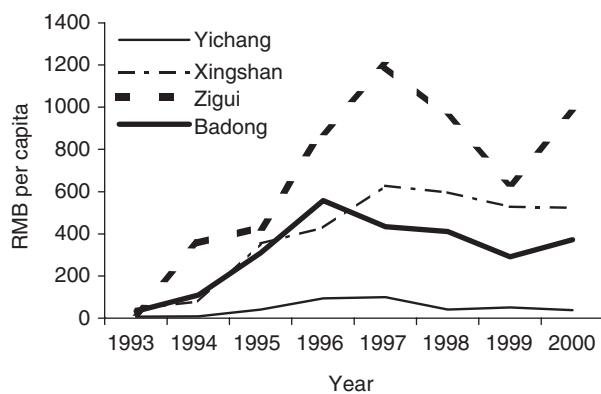


Figure 3

Investment in Hubei: RMB per capita

Source: TGPCC, 2001.



before the resettlement (as measured by GDP per capita (see Figure 2)); and (2) different levels of development intervention since construction began on the TGP (measured using the investment in RMB per capita (see Figure 3)). The counties of Badong and Zigui met these conditions. Within these two counties, three types of resettlement were identified: rural to rural resettlement, rural to urban resettlement and urban to urban resettlement. Within this paper, we consider only the experiences of urban residents who were resettled into new urban areas. All the sampled resettlers were resettled within their county and had already relocated, although for variable periods: this study does not reflect on the experiences of people who resettled out of county.

Field work was conducted within the framework of a collaborative research agreement between China Three Gorges University and the University

of Melbourne, between mid 2003 and mid 2004. Questionnaires of about one hour duration were administered verbally to randomly selected residents of the chosen villages by students of China Three Gorges University, under the direction of and after training by Duan and McDonald. In addition, interviews of enterprise managers, government officials and selected residents were conducted by McDonald.

The PSP in Zigui and Badong Counties

Until the DAF is fully established, the PSP remains the chief source of funding for development and therefore the principal means through which resettlers are to benefit from resettlement. During the first phase of the PSP, 'one to one assistance', the Central Government selected Beijing as the partner of Badong and Jiangsu province for Zigui. Since the partnerships were initiated in 1994, 30 million RMB and 92.08 million RMB in cash and materials were donated to Zigui and Badong, respectively (Liu pers. comm. 14 June 2004). In return, the partner provinces gained a good reputation and the appreciation of the receiving county (Wang pers. comm. 16 April 2004). The donations made by the partner provinces were used to improve education, health, communication, science and technology, training, and basic infrastructure. Using the funds donated by Jiangsu Province between 1994 and 1998, every township in Zigui built a primary school (even in areas which were not inundated) (Wang pers. comm. 16 April 2004). Donations were also used to construct the Guizhou middle school, county library, cultural centre, medical centre, broadcasting building, science and technology museum and Jiangsu Road (a main road in Zigui) (Wang pers. comm. 16 April 2004). The Beijing government provided funds for technical training, the employment of 1,600 Badong workers in Beijing, tourism planning, tourism promotion in Beijing, development of 500mu of irrigated orchards, construction of Jingshin middle school, relocation of the security bureau⁵ and an increase in installed telephone capacity from 12,000 to 32,000 (Huang pers. comm. 18 March 2005).

The partner provinces were not the only contributors to the RWD efforts of Badong and Zigui. Enterprises also provided assistance. Before the construction of the TGP, private companies from the east coast of China had not invested in Badong or Zigui. Yet, since the construction of the TGP, Badong and Zigui have both attracted investors. In 1995, the Hubei Provincial Government committed to the establishment of industry by founding the Zigui Special Economic Zone (ZSEZ) (Wang pers. comm. 16 April 2004). The ZSEZ is 10 km² and is close to the centre of Zigui County Town (Zigui 2004). New enterprises are located in the ZSEZ and treated preferentially. In 2004, 20 enterprises had set up in the area including: Hong Kong Lian Li, Senda shoes (fourth largest investor), Rouse shirts, AB undergarments (the largest investor), Luozi, Wei Wei soybean products (second largest investor), Huayang solar panels (third largest investor), Kuangtong and

Diyuan Hongcheng (Zigui 2004). The companies employ some 3,000 resettlers in Zigui (Wang pers. comm. 16 April 2004). According to Mr Wang, industrial restructuring and improved environmental codes meant that few State-Owned Enterprises (SOEs) set up in Zigui. Therefore, most of the companies investing in Zigui are privately owned (that is, in the Chinese classification, were shareholding corporations, joint ventures or privately owned). Companies commonly came from Zigui's partner province, Jiangsu, which is testimony to the effectiveness of the PSP.

The level of investment in Badong by east-coast companies is much lower than in Zigui,⁶ with few private companies investing in Badong thus far (compare Figure 3) (Huang pers. comm. 18 March 2004). The vice-directors of the Bureau for Economics and Trade and the Department of Development and Planning said that only three private enterprises have set up in Badong (Huang pers. comm. 18 March 2004; Tang pers. comm. 18 March 2004). In 2000, an investor from Fujian Province bought a bankrupted SOE to produce silicon, an existing tourism company was privatized in 2000 and the cement factory was also privatized in 2002 (Huang pers. comm. 18 March 2004). Private investment is relatively limited in Badong.

Clearly, Zigui has attracted more private investment than Badong. During interviews in the Three Gorges, a variety of parties in Zigui and Badong County were asked to comment on the differences between the two. The director of the PSP Office of Zigui County said that the Zigui government was more active in seeking investors when compared to the government of Badong (Wang pers. comm. 16 April 2004). The Vice Director of the Department for Development and Planning in Badong said that the county government in Zigui was more receptive to new ideas (Huang pers. comm. 18 March 2004). The manager of Senda Shoes, a private enterprise from Jiangsu Province that is operating in Zigui, said (pers. comm. 10 March 2004) that officials in the Zigui Government were threatened with unemployment if they did not find investors for their county. Finally, a top ranking official from the TGPCC described the Zigui Government as being more open to new values and concepts. Such comments suggest that the Zigui Government is more motivated and creative than Badong in its approach to the development of Zigui County.

However, there are other reasons for the differences in investment in Badong and Zigui. The preferential policies devised by the county governments of Badong and Zigui are different. Although both Badong and Zigui offer incentives through these policies, the Zigui Government offers a more attractive package than Badong for potential investors. The tax exemption offered by Zigui is two years longer than Badong's exemption and is reduced for an additional five years following the initial exemption. In Zigui, the added value tax is returned to all companies, regardless of the sector in which they choose to invest. The use of land is free in Zigui, but Badong investors must lease land at market price. Zigui investors are provided with a security force and liaison officer, and proposals are approved quickly. A liaison

officer and an exemption from the administration fees are only offered to particular types of investors in Badong. Finally, electricity is provided at a cheaper rate in Zigui than in Badong and a free phone and cable TV is offered in Zigui. Using these incentives, Zigui's government has created a more attractive environment for investors than Badong's government.

At the same time, preferential policies are not the only incentives for investing in Badong or Zigui. A company must also consider a county's natural resources, availability of technical personnel and transport facilities. Even if the preferential policy is attractive, investment is pointless if the investment environment cannot support the company's needs. In most cases, the preferential policies are secondary to the existing investment conditions (Liaison officer for Senda Shoes, pers. comm. 10 March 2004). In this respect, Zigui offers cheaper and faster transport and flatter terrain that does not require the same degree of excavation as Badong for construction. However, Badong is richer in hydropower resources and minerals and the landscape is more beautiful than Zigui.

Passing on the Benefits to the Resettlers

The PSP, thus, has brought to these counties investment in infrastructure and new employment opportunities. The first provides an indirect opportunity for development; the second, direct jobs for (some) resettlers.

In Zigui, to pass on the benefits of the PSP to the resettlers, investing companies were asked by the county government to employ resettlers where possible (Wang pers. comm. 16 April 2004). It is not compulsory to employ resettlers, but companies are encouraged to do so (General Manager of Huachung, pers. comm. 10 March 2004). Indeed, many enterprise managers acknowledged that the low level of education attained by the resettlers was a barrier to their employment (Liaison Officer of Senda Shoes, pers. comm. 10 March 2004; General Manager of Huachung, pers. comm. 10 March 2004). The manager of Senda (pers. comm. 10 March 2004) said that he only employed persons that have completed junior school. He noted that educated people migrate to larger cities in search of better wages and therefore his company is faced with a shortage of qualified workers in Zigui. However, despite such comments, all the factories interviewed in Zigui employed resettlers. The proportions ranged from around 50 per cent of the total workforce at Huachung to 94 per cent of the total workforce at Rouse. This suggests that some resettlers are benefiting from the new enterprises, but that their general low level of education is impeding higher proportions of resettlers from employment in companies.

Unlike the Zigui Government, the Badong Government did not ask enterprises investing in the region to employ resettlers (Tang pers. comm. 18 March 2004). The managers of the companies in Badong reported that resettlers are generally unskilled and require training (Liu pers. comm. 14 June 2004; Zhang pers. comm. 17 March 2004). The tourism company, which requires completion

Table 1

Locality	Before	After	No of households	T	Correlation
Including all households					
Badong	9 571	7 362	115	3.693***	0.573***
Zigui	10 426	12 253	89	-2.134*	0.507***
Including only households reporting income of at least RMB 100					
Badong	9 718	7 766	109	3.180**	0.509***
Zigui	10 493	12 393	88	-2.201*	0.567***

Note: ***significant at $p < 0.001$; **significant at $0.001 \leq p < 0.01$; *significant at $0.01 \leq p < 0.05$.
Source: Authors' survey 2003–2004.

of university or technical school and the ability to speak English, finds it particularly difficult to employ rural resettlers. Even so, as most of the residents in the region are resettlers, it is inevitable that a large proportion of the workers in any enterprise are also resettlers—100 per cent in the case of the cigarette factory (Zhang pers. comm. 17 March 2004).

The Beneficiaries

The companies that have been established as part of the RwD initiatives of the Chinese Government have provided employment to resettlers. However, the question remains: *who has benefited from the RwD initiatives?* For the purposes of this paper, 'benefit' is defined as an improvement in income or a high degree of satisfaction with respect to various social feelings. Measures of satisfaction include the resettlers' perceived capacity to: make money, find friends, raise their standard of living, speak to decision makers, trust those in local government, and decide how to live. It also tests the resettlers' perceived happiness and future outlook.

Household Income Post-resettlement

In aggregate, resettlers in Badong were worse off than those of Zigui before resettlement and become even more worse off as a consequence of the resettlement (Table 1). Seven households reported annual incomes that are suspiciously low (less than 100 RMB per year); whether or not these households are included, resettlers in Badong County lost on average some 2,100–2,200 RMB each year in annual household income over the course of the resettlement. By contrast, resettlers in Zigui County gained 1,800–1,900 RMB over the course of the resettlement.

The question is why resettlers in the two counties suffered such disparate fortunes. There are several possibilities: the resettlers in Zigui had additional

personal resources ('human capital'), not possessed by the residents of Badong, with which to survive the resettlement and to take advantage of the opportunities it offered; the different development interventions in the two counties had their effects; or the manner in which the resettlement was implemented in the two counties may have differed. To determine which of these possibilities led to the outcome reported in Table 1, post-resettlement household income was regressed against a number of variables. These variables reflected, first, the development interventions: (a) number of household members working in an enterprise; (b) whether the household was located in Badong or Zigui County; (c) whether the head of the household was employed full-time. If the development interventions are significant, these variables should be positively correlated with post-resettlement income. Additional variables reflected household characteristics or 'human capital': (d) household income before resettlement, which may be taken as a summary of the influence of household characteristics upon income earning capacity; (e) whether the head of the household had at least some secondary education beyond primary school level; (f) the age of the household head; and (g) the number of people working in the household. It is not possible to test directly for the effects of the manner of conducting the resettlement, except to include (h) the year that the household moved; and to note that the location (Badong or Zigui) may carry some of the effects of this variable. Table 2 presents the results of the analysis; and see Figure 4.

Only four of the variables are significant, even at the 10 per cent level. Two of these variables reflect household characteristics—prior income and number of working persons. These are general measures of the effects of human capital on income earning capacity. The more specific measures—education and age—are not significant (though, of course, their effects also work through the influence of prior income). The variable that reflects the nature of the resettlement process—the year of the move—does not influence post-resettlement incomes. Two of the variables that reflect development interventions are significant. These are the county in which the household resides and the number of workers who are employed in an enterprise. However, whether the head of the household was working does not independently appear to affect post-resettlement incomes. In aggregate, the model predicts more than 45 per cent of the variance in post-resettlement incomes.

The effects of the development interventions can be assessed from this analysis. When evaluated at the mean income for both counties, an extra person working in an enterprise adds RMB 2,148 to a household income; living in Badong reduces household incomes by RMB 2,001; and an extra RMB 1,000 in prior income adds RMB 340 to post-resettlement income. Principally, the difference in outcome between Zigui and Badong is due to (i) difference in number of households that claim zero income (they are not included in the regression equation); (ii) the difference in pre-resettlement incomes; (iii) the difference in the number of people working in enterprises; and (iv) a pure county effect. Differences between the counties in numbers of

Table 2

Model of Post-resettlement Household Income

Variable ¹	B	SE B	T	Sig T
Log income before	0.420	0.075	5.666	0.000
No. workers in enterprise	0.265	0.105	2.529	0.013
County ²	-0.332	0.114	-2.909	0.004
Head unemployed ³	0.052	0.221	0.234	0.815
Secondary education ⁴	-0.067	0.140	-0.481	0.631
Age head household	0.008	0.005	1.622	0.107
Year of move	-0.016	0.037	-0.422	0.674
No. working persons	0.395	0.097	4.056	0.000
Constant	35.383	73.533	0.6312	

Notes: 1. Dependent variable is logarithm of post-resettlement income. Two-stage least squares estimates. All explanatory variables are included as instruments; additional instruments are: number of persons in household; number of persons aged 20–59; head of household possession of urban *hukou* (household registration conferring right to live in an urban area); amount of compensation; number of full time workers before and after; responses to eight attitudinal items; primary education; occupations before and after move; number of males in household; change in number of workers; and change in number of persons working in enterprises. Cases in which reported income is less than RMB 100 per year are removed. $R^2 = 0.464$; $F = 14.719$ with $df = 8, 136$, $p < 0.001$.

2. County: Badong = 1; Zigui = 0.

3. Head unemployed: Head of household unemployed = 1; otherwise = 0.

4. Secondary education: Head of household has at least some secondary education = 1, otherwise = 0.

Source: Authors' survey 2003–2004.

working persons per household, education levels, age of household heads, year of move and occupations do not have significant effects on post-resettlement household incomes. In this respect, it seems that the development initiatives have worked by providing benefits to those households that can gain employment in the enterprises established as part of RwD or in the region where the development initiatives were concentrated—Zigui. Those who could not gain employment remained unemployed, or were employed (or, more usually, underemployed) in the informal sector, or tended small areas of urban land.

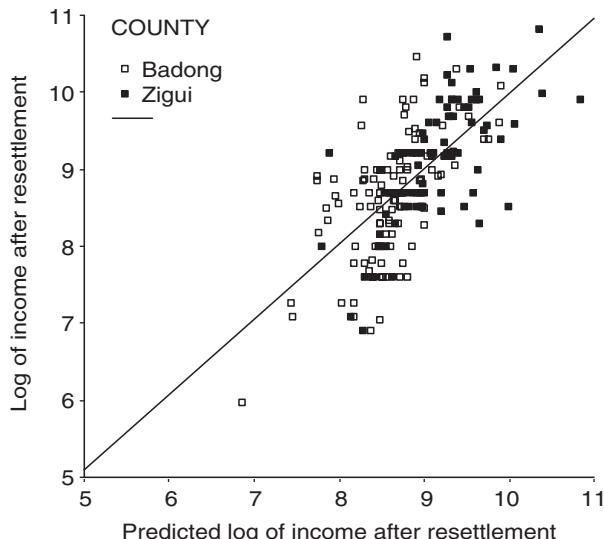
Social Feelings Measures

As discussed above, the majority of enterprise development that occurred under RwD was concentrated in Zigui. Moreover, according to the analysis of post-resettlement income the households with the highest incomes were most likely to live in Zigui and work in an enterprise. To determine whether the increased degree of development intervention in Zigui affected the resettlers' social feelings, eight measures were compared between Badong and Zigui.

Figure 4

Plot of Actual Post-resettlement Household Incomes against Predicted Post-resettlement Household Incomes

Source: Authors' survey 2003–2004.



According to Table 3 there was a significant difference between Badong and Zigui in the social feelings measures with the exception of B (Friends are easy to find) and C (Anyone can raise their standard of living if they are willing to work). More resettlers in Zigui than in Badong felt: (1) they could make money in the new environment; (2) very happy; (3) the future looks bright; and (4) they had a great deal of freedom in deciding how to live. Conversely, more households in Badong than Zigui felt it was difficult to talk to decision makers outside the village and that they did not trust the local government. By these measures it seems that resettlers in Zigui are generally more satisfied with their situation after resettlement than resettlers in Badong. These findings suggest that the heightened level of development intervention in Zigui compared to Badong has improved the wellbeing of resettlers, at least by these measures.

Conclusion

Involuntary resettlement has been synonymous with impoverishment for many decades. With a view to improving this outcome, RWD was conceptualized and included in the policies of international institutions and corporations. However, the notion has not been widely accepted by national governments. China is the exception. RWD has been included in two of its national policies related to involuntary resettlement. However, the TGP

Table 3

Comparison of Social Feelings Measures: Badong Vs Zigui

	Badong				Zigui				Chi Square	Signif
	Yes	No	Don't know	Total	Yes	No	Don't know	Total		
A	25	80	9	114	41	33	16	90	22.881	0.000
B	91	14	9	114	77	7	6	90	1.294	0.524
C	85	22	7	114	53	30	6	89	5.736	0.057
D	33	66	15	114	55	24	10	89	23.376	0.000
E	28	66	20	114	53	23	14	90	27.102	0.000
F	85	20	9	114	38	28	24	90	23.614	0.000
G	21	73	20	114	24	36	30	90	12.104	0.002
H	41	58	15	114	69	17	4	90	33.550	0.000

Note: A. Considering this new environment, I am confident I can make money, B. Friends are easy to find, C. Anyone can raise their standard of living if they are willing to work, D. I feel very happy, E. The future looks very bright for me, F. It is difficult to speak to decision makers outside the village, G. I trust those in the local government, H. Most people have a good deal of freedom in deciding how to live.

Source: Authors' survey 2003–2004.

is China's first formal application of RWD to a national project. To translate RWD from policy into practice the Chinese government devised the Partnership Support Programme and the Development Assistance Fund. As the application of the DAF is not in full swing, this paper focused on the outcomes of the PSP for resettlers.

This paper reviewed the application of RWD in two counties of the TGRA: Badong and Zigui counties in Hubei Province. Thus far, RWD is translated into the investments of private companies in the region. In this respect, the experiences of Badong and Zigui were different. Zigui had a greater capacity to attract investors than Badong because of its superior environment for construction and transport. However, Zigui also offered a more comprehensive package of preferential policies to investors.

The true measure of success for the PSP is its capacity to create beneficial outcomes for resettlers. We selected two measures to explore the outcomes: post-resettlement household income and post-resettlement social feelings. Our analysis found that the development initiatives have generated benefits for two types of households: those that have gained employment in an enterprise established as part of the RWD or those households located in Zigui county where the investments were concentrated. The social feelings questions also revealed that the county in which the resettlers reside influences their social feelings. Resettlers in Zigui tended to be more satisfied with the post-resettlement environment than those in Badong.

This research suggests that RWD can generate beneficial outcomes for those resettlers that gain access to the initiatives. Pre-existing environmental

conditions and policies can influence the concentration of these initiatives in the TGRA. This either heightens or limits the resettlers' access to RWD depending on their location with respect to the bulk of the development initiatives. The findings do, however, raise an important question: how is it that a national policy, applied to this region, can have such different effects in two neighbouring counties? The answer to this question depends also on the experiences of other resettlers in the TGRA—rural–rural and rural–urban—that will be identified in subsequent papers.

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1. Although the Xiaolangdi resettlement on the Yellow River also applied the concept of RWD, this project was developed after the Three Gorges Project and is based on World Bank policy (Lu, pers. comm. 12 January 2004). Similarly, the Shuikou project which also applied the concept of RWD also involved World Bank funding and policy and cannot be considered a national project.
2. Approximately US\$2 billion; US\$1 ≈ RMB8.
3. These companies included the water and soft drink company Wahaha of Hangzhou, the shoe company Shen Da of Jiangsu, the soybean company Wei Wei, AB consortium and China Sinopec (TGPCC 2003). Other companies included: Shuang Hui, Hui Yuan of Beijing, Haier and Aoke Ma of Qingdao, Deng Ta Paint of Tianjing, Ye Feng of Hainan and Jun Yao of Zhejiang.
4. Resettlement in the Three Gorges Project is highly sensitive in China. The response of Chongqing municipality probably simply reflects that sensitivity, but it has unknown effects on the generalizability of our results. Our access to Hubei was negotiated through Duan.
5. The Beijing Municipal Security Bureau asked every policeman to donate 100 RMB and raised 5 million RMB (H. Huang, pers. comm. 18 March 2004). It was used to relocate the Badong Security Bureau. Other than this donation, there was no compensation for the relocation of the security bureau because it was located above the water line, but still needed to be moved to the new County Town.
6. So far, the total investment of companies in Badong is 30 million RMB; however, in Zigui the investment of enterprises only from Jiangsu Province is 50 million RMB (total investment was unavailable) (Wang, pers. comm. 16 April 2004; Huang, pers. comm. 18 March 2004).

ADB (Asian Development Bank) (2001) 'Sri Lanka National Involuntary Resettlement Policy'. Retrieved from www.adb.org/resettlement/nirp_2001.pdf 13 May 2001.

ADB (2002) 'Regional Workshop on National Resettlement Policy Enhancement and Capacity Building'. Retrieved from www.adb.org/Documents/Events/2002/RETA5935/default.asp#post23 June 2003.

BARTOLOME, L. J., WET, C. de, MANDER, H. and NAGRAJ, V. K. (2000) 'Displacement, Resettlement, Rehabilitation, Reparation and Development'. Thematic review I.3 prepared as input into the World Commission on Dams. Retrieved from www.dams.org 2 May 2001.

BHATTARAI, A. M. (2001) *Displacement and Rehabilitation in Nepal: Law, Policy and Practice*. New Delhi: Anmol Publications.

BIZER, J. and **RAGSDALE, T.** (1997) 'The Development of Resettlement Policy in China: Two Case Studies in Sichuan and Hebei Provinces'. Retrieved from www.his.com/~mesa/Chinapol.htm 5 July 2001.

CERNEA, M. (1997) 'The Risks and Reconstruction Model for Resettling Displaced Populations', *World Development* 25(10): 1569–1587.

CERNEA, M. (1998) 'Impoverishment or Social Justice? A Model for Planning Resettlement', in Mathur, H. M. and Marsden, D. (eds) *Development Projects and Impoverishment Risks: Resettling Project-Affected People in India*. Delhi: Oxford University Press.

CERNEA, M. (1999) 'Involuntary Resettlement and Development: Some Projects Have Adverse Social Effects. Can These be Prevented?' *Finance and Development* 33(3): 44–46.

CERNEA, M. (2000) 'Risks, Safeguards and Reconstruction: A Model for Population Displacement and Resettlement', in Cernea, M. and McDowell, C. (eds) *Risks and Reconstruction: Experience of Resettlers and Refugees*. Washington: The World Bank.

CERNEA, M. (2005) 'The "Ripple Effect" in Social Policy and its Political Content: Social Standards in Public and Private Sector Development Projects', in Likosky, M. B. (ed.) *Privatizing Development: Transnational Law, Infrastructure and Human Rights*. Leiden: Martinus Nijhoff.

CERNEA, M. and **KANBUR, R.** (2002) 'An Exchange on the Compensation Principle in Resettlement', Working Paper 49. New York: Cornell University, Department of Applied Economics and Management.

DUAN, Y. and **STEIL, S.** (2003) 'China Three Gorges Project: Policy, Planning and Implementation', *Journal of Refugee Studies* 16(4): 422–443.

FRUGGLE, R., SMITH, W. T., HYDROSLUT CANADA, and AGRODEV CANADA (2000) 'Large Dams in Water and Energy Resource Development in the People's Republic of China (PRC)'. Country review paper prepared as an input into the World Commission on Dams. Cape Town.

HEGGELOUND, G. M. (2004) *Environment and Resettlement Politics in China*. London: Ashgate Publishing.

JACKSON, S. and **SLEIGH, A.** (2001) 'The Political Economy and Socio-economic Impact of China's Three Gorges Dam', *Asian Studies Review* 25(1): 57–72.

JUN, J. (1997) 'Rural Resettlement: Past Lesson for the Three Gorges Project', *The China Journal* 38: 65–92.

LENG, M. (1999) 'The Battle of Sanmenxia', *Chinese Sociology and Anthropology* 31(3): 1–98.

LI, H. (2000) 'Population Displacement and Resettlement in the Three Gorges Reservoir Area of the Yangtze River, Central China', PhD Thesis, University of Leeds, School of Geography.

LI, H., WALEY, P. and **REES, P.** (2001) 'Reservoir Resettlement in China: Past Experiences and the Three Gorges', *The Geographical Journal* 167(3): 195–212.

McCULLY, P. (1996) *Silenced Rivers: The Ecology and Politics of Large Dams*. London: Zed Books.

McDONALD, B. (2006) 'From Compensation to Development: Involuntary Resettlement in the People's Republic of China', University of Melbourne, PhD thesis.

MATHUR, H. M. (1995) *Development, Displacement and Resettlement: Focus on Asian Experiences*. Delhi: Vikas Publishing House.

PARASURAMAN, S. (1999) *The Development Dilemma*. London: MacMillan.

SCHEARF, D. (2006) 'China Boosts Compensation for Millions Displaced by Water Projects', *Voice of America*, 14 August 2006 retrieved from <http://www.voanews.com/english/portal.cfm> 22 May 2007.

SHI, G. and **CHEN, S.** (2001) *China Resettlement Policy and Practice*. Nanjing: Ningxia People Press.

SHI, G., WU, Z. and CHEN, S. (2001) 'Policy, Planning and Implementation of Resettlement and Rehabilitation of the Reservoir Projects in China'. Retrieved from www.chinaresettlement.com/paper/policyplanning.htm 13 May 2001.

STATE COUNCIL (1991) *Regulations on the Compensation for Land Acquisition and Resettlement of the Construction of Large and Medium-sized Water Conservancy and Hydroelectric Projects*. Decree of the State Council of PRC: No. 74:3.

STATE COUNCIL (2003) *The Regulation on Changjiang Three Gorges Project Resettlement*. Decree of the State Council of PRC: No. 299:1.

TGPCC (Three Gorges Project Construction Committee) (2003) Website of the TGPCC of the State Council. Retrieved from www.threegorges.gov.cn 6 August 2003. (In Chinese).

WORLD BANK (1994) *Resettlement and Development: The Bankwide Review of Projects Involving Involuntary Resettlement 1986-1993*. Washington: World Bank.

WCD (World Commission on Dams) (2000) 'Dams and Development: A New Framework for Decision Making—Overview'. Retrieved from www.dams.org//docs/overview/wcd_overview.pdf 1 July 2003.

ZIGUI (2004) *Zigui: Three Gorges China* (Promotional Pamphlet). Zigui: Zigui County Economic and Technological Development Zone.

Personal communications were made by the following individuals.

HUANG, H. Vice-Director of Development and Planning Department, Badong County, 18 March 2004.

KOROSI, E. Manager of Sustainable Development, BHP Billiton, 15 December 2003.

LIU (initial withheld) Assistant to General Manager of Hubei Shen Nong Stream Travel Service, 14 June 2004.

LU, C. Vice Director of Three Gorges Project Construction Committee, 12 January 2004.

MIFSUD-BONNICI, A. Corporate Responsibility Advisor, BP, 19 December 2003.

(name withheld) Vice General Manager of Senda Shoes, Zigui, 10 March 2004.

(name withheld) Liaison Officer for Senda Shoes, Zigui, 10 March 2004.

(name withheld) General Manager of Huachung, Zigui, 10 March 2004.

TANG (initial withheld) Vice Director of the Bureau for Economics and Trade, Badong County, 18 March 2004.

TOUZEL, P. Principal Consultant, Environmental Resource Management China, Shell, 12 December 2003.

WANG, W. Director, Partnership Programs Office, Zigui County, 16 April 2004.

ZHANG, T. Vice Director, Badong Cigarette Factory, 17 March 2004.

Appendix

Important Laws and Administrative Laws of China on Land Acquisition, Demolition, Relocation and Resettlement (Shi and Chen 2001)

Constitution of the People's Republic of China, first adopted 4 December 1982, revised 15 March 1999.

Law of the People's Republic of China on Land Administration, first adopted 12 April 1986, revised 29 August 1998.

Law of the People's Republic of China on Administration of Real Estate, adopted 5 July 1994.

Rules for the Implementation of the Law of the People's Republic of China on Land Administration, adopted 29 December 1998.

Regulations on the Protection of Basic Farmland, adopted 29 December 1998.

Regulations Governing Urban Housing Demolition and Relocation, adopted 22 March 1991.

Regulations on the Compensation for Land Acquisition and Resettlement with regard to the Construction of Large and Medium-sized Water Conservancy and Hydroelectric Projects, adopted 15 February 1991.

Regulations on Resettlement for the Construction of the Three Gorges Project on the Yangtze River, adopted 19 August 1993.

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