

Resettlement in the  
**Three Gorges Project**

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## INTRODUCTION

### Research context

Involuntary resettlement can be caused by wars, religious conflicts, political upheaval, natural disasters and infrastructure projects such as reservoirs and dams. While governments and private investors in developed countries now largely avoid constructing dams in preference to cheaper and less risky means of power generation, the construction of dams and reservoirs in developing countries has continued over the last half a century to meet the increased demands of consumption. Some 45,000 large dams (higher than 15 m) have been built during the past five decades in over 150 countries. Almost half of these dams are located in China (Bosshard 2001). Global estimates suggest that 40–80 million people have been displaced as a result of dam and reservoir projects over the last fifty years (WCD 2000). The majority of these persons (between 30 and 60 million) reside in the relatively poor rural areas of China. 'Displacement' includes the expropriation of land and other assets and the movement of people. 'Involuntary resettlement' consists of two closely related social processes: the displacement of people and the reconstruction of their livelihoods (Cernea 1996a). Reconstruction is concerned with how the displaced people recover their capacity to maintain an adequate livelihood, and form a new community or integrate into existing communities. Invariably, major dam and reservoir projects are complicated by a myriad of issues, including scarce land resources, limited human-carrying capacity of the land, fragile environments with serious water issues and soil erosion, lagging socio-economic development, and low educational attainment levels of the labour force. The involuntary resettlement of predominantly poor, rural people will remain a contentious issue not only in the countries concerned, but also in the wider international community (Croll 1999; Picciotto *et al.* 2001; Chetham 2002; Heggelund 2004; Sutton 2004).

Displacement and resettlement of people produced by major infrastructure projects is an important development issue, with concerns about the economic, social and environmental consequences for the displaced population (World Bank 2001a). It is noted that 'the most widespread effect of involuntary displacement is the impoverishment of a considerable number of people ... such impoverishment, with its de facto lack of social justice and equity, is manifest in numerous countries throughout the developing world when involuntary resettlement occurs' (Cernea and McDowell 2000, p. 12). Understandably, research into involuntary displacement and resettlement has grown rapidly during the last two decades. Researchers from multiple disciplines have studied various displacement events (Scudder 1973, 1981; Kearney 1986; Cernea 1988, 1997, 1998; World Bank 1990, 2001b; Li *et al.* 2001) and have generated theoretical frameworks to explain the complex and dynamic processes involved. The World Bank began conceptualising resettlement as a development opportunity in the early 1980s (OED 1998a) and advocates that resettlement activities be conceived of and executed as sustainable development programmes, whereby sufficient investment resources are provided to enable displaced persons to share in project benefits (World Bank 2001a). However, no definitive theory on migration has yet managed to adequately incorporate the total process of displacement and resettlement, due largely to its complexity (Skelton 1997).

The Three Gorges Project (hereafter TGP) and associated involuntary resettlement, the urbanisation of Chinese society and the transition from a centrally planned economy to a market-oriented economy are among some of the socio-economic transformations that have profoundly shaped modern life in China. Although China has made significant progress in building the mechanisms necessary for a market economy, the TGP resettlement has been implemented, controlled and manipulated by the government. The Chinese government has formulated a 'developmental resettlement' (*kaifāng yimín*) policy in dealing with involuntary migration and resettlement induced by hydro projects, as well as other infrastructure projects. However, the TGP has unique demographic, social, economic and political characteristics that differentiate its resettlement policy and approaches from many others (Salazar 2000; Jackson and Sleight 2000). Evidently, the resettlement issue associated with the TGP represents a significant challenge, involving the relocation of over 1.2 million people over a 17-year period (CWRC 1997; Jing 1997).

This book is a study of resettlement issues of the TGP, with particular attention to the rural resettlement of rural residents. In order to arrive at a new understanding of the patterns and processes involved, this research is based on both primary and secondary sources of information. It is expected that this will not only contribute to the understanding of the process in China but also to the understanding of involuntary displacement and resettlement in general. The study seeks to contribute to the formulation of policies and programmes relating to the reconstruction process. The consequences of various approaches to agricultural or land-based rural resettlement, mainly via 'near resettlement' within the local communities in the reservoir area and the 'government-organised distant resettlement' (GODR) in more distant provinces, are examined.

## Research objectives

The principal purpose of this study is to evaluate the impacts of the TGP relocation process on both the displaced people and on the host communities; the problems and coping strategies in reconstructing livelihood and production; how the government can best remain alert to the adverse consequences and respond rapidly to address them; and, the current appropriateness of the resettlement schemes in meeting the objectives of displacement and resettlement. Particular attention is focused on rural resettlement, with specific reference to the new trend toward 'distant resettlement' and the consequences of resettlement for the large number of forced migrants. In pursuit of this guiding objective the study has a number of more specific aims, as follows:

1. To examine the consequences of involuntary displacement and resettlement produced by past hydro projects in China and similar projects in other developing countries, and to understand how impoverishment of the displaced is caused by development projects;
2. To examine the restrictive factors which influence rural resettlement approaches and their outcomes;
3. To identify some critical issues impacting on the sustainability of rural resettlement:
  - The incompatibility between agriculture-based resettlement and the human-carrying capacity of land in the reservoir area;
  - Unfair compensation for the losses of land and other assets;
  - Contradictions between the administrative mechanisms of the government and market forces; and
  - Conflicts of interests between individual resettlers, regions which the TGP benefits, and the nation.
4. To reveal the nature and major problems of the 'government-organised distant resettlement' schemes;
5. To analyse experiences and the change in the roles and status of resettlers in the process of displacement and resettlement, paying particular attention to the different experiences of women and men;
6. To draw out the major socio-economic and environmental implications of rural resettlement for both the resettlers and affected communities in migrant sending areas and in the resettlement areas; and
7. To identify the major strengths and weakness of government policies for the TGP and the implementation of these policies.

## Voluntary and involuntary migration

Migration is an extremely complex concept involving equally complex economic, social, cultural, demographic and political processes operating at the local, regional, national and international levels (Castles and Miller 1993). In the voluminous literature

on migration there are different topologies that differentiate migrants and migrations in terms of the temporal dimension, distance traversed, nature of the boundaries crossed, causes of the move, characteristics of the migrants and so forth. Fairchild (1925) made one of the earliest categorisations of human migration when he divided it into two types: voluntary and forced. However, the most frequently cited topology of migration is that of Peterson (1958), in which the principal division employed is the degree to which a move is 'forced'. Essentially, voluntary and involuntary migration can be identified based on the motivation and willingness of migrants to move. The distinction reflects not only the relative level of freedom in deciding whether to move but also personal characteristics and the society in which migrants live (Boyle *et al.* 1998).

### **Voluntary migration**

Theories on the causes of voluntary migration generally take one of two broad approaches. The first is a 'neo-classical economics equilibrium approach' (Harris and Todaro 1970). It suggests that population movement is a 'natural' response to inter-regional differences in social and economic opportunities, and that people generally move from areas where labour is plentiful and capital is scarce to areas where labour is deficient and capital is abundant (Greenwood 1994). Thus, the level of development in various regions, of a country or the globe, determines the scale and direction of migratory flows. From this theoretical perspective, some phenomena and features relating to the contemporary 'floating population' (*liudong renkou*) in China since the 1980s can be explained (Fan and Huang 1998).

The second theoretical framework is the 'structuralist' approach (Bach and Schraml 1982; Wood 1982; Goss and Lindquist 1995). In this, migration is conceptualised as a macro-social process in the broader context of socio-economic and political change based principally on historical materialism. It criticises the neo-classical economic perspective for placing too much emphasis on the free choice of individuals, and for neglecting the structural forces producing the regional disparities to which people respond (Chant and Radcliffe 1992). According to this approach, the motivators of migration reside in the underlying forces that structure the unequal distribution of opportunities between regions. From this perspective, population movement is a response to broader structural forces in society that have created substantial spatial inequalities.

These two broad theoretical approaches not only offer opposing views of the causes of human migration but also imply very different outcomes. The neo-classical approach, arguing that population displacements are natural occurrences, suggests that they are positive events and that policy development should reflect and reinforce the beneficial aspects of these movements. Conversely, the structuralist approach stresses that human migration is a response to imbalances in power and opportunities. Thus, the negative aspects of human displacements are a function of inequities in development. Policy on human displacement should recognise these imbalances and attempt to stem what must be viewed as a consequence of the inequitable distribution of resources in society (Lonergan 1998).

### **Involuntary migration**

There is no absolute distinction between voluntary and involuntary migrations (Speare 1974). Hugo (1996, p. 107) states that:

Population mobility is probably best viewed as being arranged along a continuum ranging from totally voluntary migration, in which the choice and the will of the migrants is the overwhelmingly decisive element encouraging people to move, to totally forced migration, where the migrants are faced with death if they remain in their present place of residence.

There are three subsets of migrants who have no reasonable choice but to move and are labelled as 'involuntary' or 'forced' migrants (Boyle *et al.* 1998). These three categories can be identified as: political refugees, environmental refugees or environment-related migrants, and resettlers produced by development projects.

Much attention has been paid to political refugees. This term is defined by the 1967 United Nations Protocol on Refugees as 'every person who, owing to a well founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country' (Keely 1981, p. 6). The United Nations High Commissioner for Refugees (UNHCR), in a 1993 publication *State of the World's Refugees*, identified four fundamental causes of refugee flows. These were: political instability, economic tensions, ethnic conflict and environmental degradation. Even though some institutions and researchers have extended the term to a broader context (Olson 1979; Nobel 1985), the definition of refugee for this subset of involuntary migration is still used to identify those who are forced to move by pressures of political conflicts, or human origins (Zolberg and Suhrke 1984).

Since its first official mention in 1985 by El-Hinnawi (1985), the term 'environmental refugee' has appeared with increasing frequency in the literature on environment, migration and development. Jacobsen (1988) defines it as referring to people who have been forced to leave their area of origin because of environmental disruption. Richmond (1993) argues that migrants resulting from infrastructure projects can be categorised as environmental migrants. It is necessary to differentiate between refugees and environmentally induced migrants. Some scholars argue that, given the specific legal connotation of the term refugee, it is best not to refer to migrants who have been forced to move for environmental reasons by that term (Hugo 1996; Bates 2002). While infrastructure projects usually include resettlement components, a few scholars argue that they are unlikely to produce 'waves of environmental refugees' (Homer-Dixon 1991).

Migration and displacement produced by development projects (including industrial, urban, transportation or infrastructure projects) should be treated separately from environment-related relocation and also from that by political refugees. Compared with the latter two categories, migration produced by development projects, in this

case dams or reservoirs, displays both similarities and differences. They are similar in that people under each category are forced to move against their will, however, they are dissimilar in that the government usually plans resettlement schemes arising from the construction of dams. Furthermore, unlike political refugees, people displaced by dams do not normally leave their origin country but are settled internally. Thus, they often have some time to make arrangements for their displacement though their choice of destination is limited. Finally, people displaced by dams do not have the option of returning to their place of origin, while political refugees may have that option (Cunny and Stein 1989).

The most fundamental outcome of 'development-induced displacement and resettlement' (DIDR) is the impoverishment of considerable numbers of people (Cernea and McDowell 2000). A central feature of displacement and resettlement involving hydro projects is its absoluteness. All people, regardless of age, sex, profession, length of residence, religious belief, or other characteristics, must leave the reservoir area before it is inundated and be resettled elsewhere (Eidem 1973). Due to this involuntary nature, the relocatees usually expect the government or the project authority to assume the responsibility for their rehabilitation (Scudder 1973). Voluntary migrants usually have strong desires to move for various reasons, make careful arrangements for their migration, and are willing to confront the risks and uncertainties that their new environment may pose. In contrast, reservoir resettlers are forced to move urgently after the expropriation of their land (Cernea 1985). Massive displacement also requires major logistical arrangements, for example, in physically removing residents and locating new and appropriate resettlement areas parallel to project construction (Eidem 1973). The resettlers also confront problems in finding favourable locations and farmland of equivalent quality in the resettlement areas. Consequently, they experience social, cultural and psychological stresses. Forced migration caused by dams or reservoirs is complex and painful, involving the difficult tasks of developing new production systems and new patterns of community (Cernea 1985). This subset of involuntary migrants is the focus of this study.

Displacement is a multi-dimensional phenomenon. Bartolome *et al.* (2000, p. 3) take displacement to be 'the result of a model of development that enforces certain technical and economic choices without giving any serious consideration to those options that would involve the least social and environmental costs'. Cernea (see Cernea and McDowell 2000) views displacement as not only the physical eviction from a dwelling but also the expropriation of productive land and other assets. Displacement caused by hydro projects usually possesses the following four characteristics. First, most displacement is involuntary. There is usually little meaningful participation of the affected people in the planning and implementation of any projects. Second, the submergence of land and other property, and the displacement of residents sometimes occur without prior and sufficient warning. Third, the numbers of both the people directly affected (e.g., whose land or housing or both is flooded) and those indirectly affected (e.g., downstream people and host people who receive the resettlers) are frequently underestimated, indicating that there is an inadequate understanding of the exact nature and extent of the negative

effects involved. Fourth, the notion of displacement as a 'sacrifice' has influenced the concept of displacement. This ideology sanctions the belief that some people must 'lose out' for the greater good of the nation and that honour is conferred upon those who make the sacrifice.

Theoretically, resettlement is a process that might reverse the risks of displacement, as the 'Impoverishment Risks and Reconstruction' (IRR) model of Cernea (1998, p. 47) suggests:

... from landlessness to land-based resettlement; from joblessness to re-employment; from food insecurity to safe nutrition; from homelessness to house reconstruction; from increased morbidity and mortality to improved health and well being, and from social disarticulation and deprivation of common property resources to community reconstruction and social inclusion.

In China, the context of forced displacement, in its broadest sense, centres around four fields: involuntary displacement caused by development projects; controlled displacement resulted from political persecution; massive labour dislocations; and disaster-induced displacement. This study focuses on the first of these fields.

## Development and resettlement

The development of currently underdeveloped countries requires advances in technology, exploitation of natural resources and the establishment of infrastructure such as large dams, reservoirs, urban development and transportation (McCormack 2001). Hydroelectric power schemes have been widely used to ensure access to an environmentally sustainable, clean (Butcher 1990) and socially sustainable energy (Cernea 1997) supply. Hydroelectricity currently provides 20% of the global consumption of electricity. The World Energy Council estimates that hydroelectricity production in developing countries will double between 1990 and 2020, along with an increase in energy requirements as the global population continues to expand.

The principal purposes of building dams or reservoirs are to generate electricity, supply water for agriculture, industries and households (Altinbilek 2002) and to control floods and improve river navigation (Jackson and Sleigh 2000; Schultz 2002). Yet, the construction of dams and reservoirs produces far-reaching eco-environmental, social and economic consequences (Cernea 1990; Bose *et al.* 2001; He and Chen 2001). These include the degradation of river ecosystems, irreversible inundation of fertile land, land-use/land-cover changes, political and social instability, and the severe impoverishment of tens of millions of people. But if a development project is properly planned and implemented it may be possible for the affected people to become beneficiaries of the project, that is, to achieve higher standards of living.

Sustainable livelihood is a main aim of sustainable development. A sustainable livelihood includes: tangible benefits like low morbidity and mortality, an increasing level of education, increasing incomes through opportunities for employment; and

empowering the displaced people by their participation in the entire decision-making process of the development project and resettlement (Bartolome *et al.* 2000, p. 8). Reconstruction of livelihoods is only possible where development takes place. Thus resettlement must be planned as an integral part of a comprehensive development project, instead of a mere restoration of incomes (Jain 1999). This brings us to the question of development in the context of resettlement and rehabilitation.

A development project should centre around: the enhancement of human capabilities and the expansion of social opportunities by addressing the social and personal constraints that restrict choices. Some critical issues relate closely to involuntary resettlement, such as human rights, governance and accountability, participation, the complexities of resettlement goals, options and strategies, and the relevant legal and policy instruments. Clearly, resettlement is not a simple issue of people moving from one place to another. It is not just an internal issue but also a social and political phenomenon with complex local, national, even global, dimensions (Malkki 1990).

Improving the livelihoods of the displaced is a primary goal of displacement. The structural weakness of industrial sectors in the Three Gorges reservoir area, in conjunction with the presence of retrenched workers in urban areas, is a major contributory factor to the problems of the rural resettlement of the TGP. The social and economic transformations in China and the resettling of the rural people in agricultural sectors and moving some of them out of the reservoir area to resettle in other provinces through a 'distant resettlement' approach are the main contexts to understanding the processes of the TGP resettlement. Through researching the practice of forced resettlement associated with the TGP, especially rural resettlement, this study makes a contribution to 'developmental resettlement', to existing policy, and to theoretical frameworks of involuntary migration and resettlement.

## Contemporary migration in China

Examining internal migration in China provides us with an opportunity to gain a general understanding of the broad context in which human resettlement from dam projects has been taking place. This section examines patterns, restrictions, policies of migration, new trends of rural-to-urban migration, and the impacts of migration in both the sending and receiving areas in contemporary China. For this purpose, migration is divided into two phases: before and after economic reforms emerged in rural China in the late 1970s.

### *Origin of migration control before the late 1970s*

The national government has played a central role in contemporary migration in China. A number of scholars, notably Christiansen (1990), Chan (1994a), Cheng and Seldon (1994) and Mallee (1995), have studied the 'household registration system' (*hukou*) and its impacts on population mobility from rural to urban areas. *Hukou* has been the primary

apparatus controlling population mobility in China (Cheng and Seldon 1994). The *hukou* system has functioned as a major tool of social control on the basis of households. It was first established in the urban areas in 1951 and extended to the rural areas in 1955, being formalised officially as a permanent system in 1958. Some important modifications have been made since the early 1980s. In mainland China *hukou* status has two related parts: residential location (cities or towns and rural residential locations like villages or state-owned farms) and socio-economic ('agricultural' or 'non-agricultural') status. To the government, *hukou* serves not only the purpose of blocking any rural-to-urban migration but also for overall state administration. In the *Temporary Regulation on Urban Hukou Management*, the Ministry of Public Security (MOPS 1951) stipulated that the purpose of the regulation was to protect social order, and safeguard the safety and freedom of residence and migration. The State Council issued a *Directive Concerning the Establishment of a Permanent System of Hukou Registration* in 1955 (Population Research Centre of the Chinese Academy of Social Science 1986), requiring all changes of residence to be registered by the origin and destination governments. The strict enforcement of the rural-to-urban migration controls started in the early 1960s as a result of the devastating Great Natural Famine (1960–62). The food shortage continued through the 1970s and ended in the mid 1980s. To effectively control rural-to-urban migration, *hukou* was used in conjunction with job assignment practices and the rationing of living necessities in urban areas.

The heavy-industry-oriented development in the 1950s was designed to accelerate the process of industrialisation. Industrialisation in the 1950s was built on a shortage of food supplies, especially grains and edible oils (Chan 1988). The government implemented an artificial depression of food prices to support industrialisation (Lin *et al.* 1996). The low state price for agricultural products facilitated the transfer of accumulated funds from rural to urban areas (Christiansen 1990). 'The unified purchase and marketing of grain' (*tonggou tongxiao*) established compulsory sales to the state of specified amounts of grain at low prices. This rationing system has been the basis of 'price scissors' between industrial commodities and agricultural products for a long time. Since urban *hukou* was the prerequisite for getting a low state-priced food quota, disparities between rural and urban areas and between the agricultural and non-agricultural population resulted.

The government sped up the process of rural collectivisation to enhance agricultural productivity and to support industrialisation in urban areas. Cities greatly attracted rural dwellers because urban citizens had priority over rural residents in getting rationed substances such as grain, cotton, oil, cloth, meat and sugar. Consequently, a large number of peasants migrated to the cities in search of jobs. To safeguard the progress towards collectivisation in rural areas and to control the total demand for food by urban residents, the Standing Committee of the National People's Congress (NPC) issued *Regulations on Hukou Registration in the People's Republic of China (PRC)* in January 1958. Yet this policy was not implemented due to the large demand for workers in urban factories during the period of the Great Leap Forward Movement (*dayuejin*) (1958). Workers were recruited from the rural areas. A typical case was the rural-urban migration from the 1950s through to the 1970s in order to develop new industrial bases in inland cities.

such as Anshan, Baotou, Xi'an, Nanzhou, Daqing, and the Third Front Construction (*sanshan jianshe*) of industrialisation in south-western and central China, mainly in Sichuan, Hubei, and Shaanxi provinces (Chen *et al.* 1996). The Third Front Construction aimed to protect infrastructure from attack by the superpowers (the USA and the former Soviet Union), through transferring heavy industry from the eastern coastal region to the hinterland. The total population in the cities and towns increased by 10 million people from 1957 to 1959, the fastest growth since 1949 (CNSB 1995, p. 376). However, soon after, about 26 million urban workers and their dependents were sent back to their original rural areas as a result of the failure of industrial development of the Great Leap Forward Movement (CNSB 1995, p. 376).

### ***Restrictions in changing hukou status before the late 1970s***

Industrialisation and politics were two important drivers of migration over this period. Transfer of *hukou* status was only possible with official approval. Migrations from the countryside to urban areas, or from smaller urban areas to larger ones were rare (Mallee 1995). Zhao (1997) used data on the number of people who changed residency status from rural to urban areas between 1949 and 1985 and also converted *hukou* status from agricultural to non-agricultural (commonly called *nongzhuanfei*) to calculate the migration rate, which is defined as the percentage of rural population that migrates to urban areas annually. This was an average of 0.24% in China, which was far lower than the international migration rate of 1.84% for the period of 1950–90 (Zhao 1997). Migration fluctuations were closely in line with economic and political movements. Migration surged during the Great Leap Forward Movement as a result of the increased demand for labour in the industrial sector, but it plunged during the Great Natural Famine (1960–62). After a brief increase, migration experienced a setback during the Cultural Revolution (*wenhua dageming*) (1966–76). This 10-year period saw some 17 million youths who were educated in the cities and a number of intellectuals being sent to the countryside to be 're-educated' in the ways of the peasants (Hu and Zhang 1984). Most of them returned to the cities after the movement ended disastrously.

Under the rural *hukou* system, there were basically three routes to changing one's rural registration, yet none was easy. The first way was to be reunited with spouse or parent(s) or be adopted by a close, childless relative. The second way was to wait for the occasional recruitment of workers for urban factories, yet, such recruitment exercises were few and far between. The third way was to be admitted to a college or be promoted in the army. Generally, rural people could not depend on securing a change of household registration status in order to go to the cities.

The real power of the *hukou* system in regulating people's movements did not come solely from the system itself but from its integration with other social and economic control mechanisms (Chan and Zhang 1999). Urban dwellers had many privileges that were not available to peasants, for example, they could easily obtain employment in factories and governmental departments, buy basic necessities at low prices, obtain free

or cheap houses allocated by their work units, medical care, pensions, and education opportunities for their children. As a result of the inequity institutionalised by rural-urban segregation, the income gap between rural and urban people widened. Sheng and Sun (1994) estimated that the income ratio of urban residents to rural dwellers was 3.09 in 1980, taking into consideration the government subsidies on housing, health care and food. Differences in absolute income increase the resolve of rural people to move to cities. Changing registration status from rural to urban is an ambition for most peasants, as non-agricultural *hukou* status implies vastly greater opportunities and socio-economic status (Chan 1996a).

### **Patterns of migration before the late 1970s**

The spatial patterns of migration before and after the 1980s differed. Hu and Zhang (1984) estimated that several million people moved from the developed cities along the east coast to new development areas and key heavy-industrial bases in the north-eastern, western, and south-western regions between the 1950s and 1970s, under arrangements made by the government (Map 1). The mainstream of migration was from the traditionally densely populated eastern coastal areas to the sparsely populated frontier areas of Helongjiang, Inner Mongolia, Xinjiang, Qinghai, Tibet, Yunnan, and Guizhou (Yang and Xiao 1996). According to Ma (1993), migration policy was defined by three characteristics: the rural population was strictly prevented from moving into cities and towns, or from converting their status from agricultural to non-agricultural; migration from towns to cities or from small cities to major cities was strictly forbidden; and migration from border areas to inland places or from less developed and developing areas to developed and well-developed regions was restricted.

### **Floating labourers after the late 1970s**

Commencing in late 1978, the Chinese leadership attended to the transformation of the economy from a centralised, planned economy to a more efficient market-oriented economy. One of the steps in this process was the replacement of rural collectivisation with the 'household contract responsibility system' (*jiating lianchan chengbao zerenzhi*). Under the rural collectivisation system, all members of a village worked collaboratively in the fields and the harvests were shared equally among the villagers. With the implementation of the responsibility system, each household was contracted a piece of land which they were permitted to cultivate on their own. More significantly, whatever the land produced was theirs to keep. This created a major shift in the mindsets of the people, they were more willing to work since they were able to enjoy the fruits of their labours. Consequently, productivity levels increased and surpluses in grains and other agricultural products were created, leading to prosperous agricultural development in the 1980s (Oi 1999). As the productivity of each farmer increased, fewer labourers

were needed to work the same area of land, the downside of which was the emergence of surplus rural labour and a large volume of temporary migration (Nelson 1976). The authorities, local officials in management and managers in industry permitted a variety of small-scale enterprises in services and light manufacturing. The economy and market were subsequently opened to overseas investors in order to increase foreign trade and investment, especially in the eastern coastal region. Since the mid-1980s, a large number of migrants have poured into the cities without official permission.

Adoption of the responsibility system in rural areas in the early 1980s gave farmers more control over their land. By the mid-1980s, production rates improved and the food shortage was alleviated (Lin 1992). For example, between 1979 and 1983 grain output increased by 40–50%. The government also began to relax some aspects of its strict control over migration. In the early 1990s, a free grain market emerged in urban areas with the abandonment of the rationing system. Rural reform, together with the commoditisation of food, brought about two outcomes. Firstly, rural residents were now able to move to the cities in search of jobs, albeit temporarily. Secondly, peasants had the freedom to choose whether to work on their land or not. Nevertheless, the government was unwilling to let rural people move into cities. It adopted a policy of relaxing restrictions on non-farm activities and in 1984 officially allowed farmers to engage in domestic trade and long-distance transportation. This policy was explained as 'leaving the land but not leaving the town or village' (*litu bu lixiang*). Since then, township and village-owned enterprises in rural areas, especially in the coastal provinces, have boomed. In the 1980s, township/village enterprises (TVEs) played a leading role in transferring rural labour to non-agricultural sectors. The number of rural labourers who moved from farming into TVEs increased from 29.99 million in 1980 to 92.65 million in 1990. During the same period, China took on a new approach to urbanisation, which entailed 'limiting the expansion of major cities (population over 1 million), sensible development of medium-sized cities (a population of 0.2–0.5 million) and encouraging the development of small cities or towns (population of less than 0.2 million)' (*Renmin Ribao* 16 and 17 October 1980). Migration to cities, especially big and medium-sized cities, was discouraged. With the commencement of the reform of state-owned enterprises, by granting them financial autonomy in the mid-1980s, there was a boom in urban construction. Many construction jobs, which were regarded as dangerous and laborious, became available, especially in the four special economic zones (Shenzhen, Zhuhai, Shantou and Xiamen) along the southern coastal areas. According to Banister and Taylor (1989) there were about 5 million rural construction workers employed in urban areas in 1988.

Since the 1980s, migration policy has changed from absolute control to a combination of control with flexibility (Ma 1993; Zai and White 1997). The *hukou* system reforms have been characterised by the conditional opening of urban residency to rural residents and relaxing, somewhat, the policy control over rural to urban status transfer (Chan and Zhang 1999). Thus, the reforms made it possible for millions of women and men to migrate. The main direction of migration has been from the west toward the east. The majority of migrants form a 'floating' or temporary population. The spatial patterns of migration, in terms of distance, fall into three categories: to different provinces, which

usually implies a long stay, returning home only during the Spring Festival (Chinese New Year); to main cities and the provincial capital in the same province; and to the main town or township/village enterprises in the same county, from where migrants may return home frequently. This type of migration is called 'leaving the town or village but not the land' (*lixiang bu litu*). A recent study (He and Pooler 2002) has revealed the spatial characteristics of the inter-provincial migration flows between the early 1980s and the early 1990s and identified the causes, mainly uneven distribution of the economy and relaxed control over rural-to-urban migration.

With a rapidly growing economy, many problems inherent in the traditional industrial structures surfaced so the 15th National Party Congress of the Chinese Communist Party approved a motion to accelerate the reform of state-owned enterprises. The reform sought to convert large and medium-sized state-owned enterprises into highly regulated corporations. As the term implies, all aspects of the ownership, management and production of state-owned enterprises were entirely under the control of the state. Under the reform, such enterprises could now be joint ventures with foreign investors, co-owned by various institutions or even the workers, although in most cases the state still retained majority ownership. As such, the management and ownership of an enterprise did not necessarily belong to one party, and administrative methods were essentially non-traditional. The reform aimed to make these enterprises better able to operate in a market economy. Many employees of these state-owned enterprises were laid off and the capacity of the labour market to absorb rural labourers was greatly reduced, affecting the flow of rural labour force into the cities.

Unemployment has become a serious problem since the early 1990s. The State Planning Commission estimated that about 30 million state workers were retrenched between 1998 and 2005. The problems of re-employment of these retrenched workers and the transformation of surplus rural labourers, who have moved or will be moved to the urban areas, are inherently associated. These factors will have long-term effects on the rural to urban migration in China.

People moving out of their origin provinces are still required to provide family planning, education and medical certificates to the authorities in their destination provinces. These certificates are needed in order for a migrant to obtain an employment registration card from the labour agency in his origin province. This card can enable him to obtain work permission, issued by his destination province. Clearly, rural migrants, peasant labourers (*mingong*), or floating population were a result of China's economic reforms, which encouraged the diversion of rural labour into industrial production.

Part-time farming is a common occurrence in rural areas, especially in the eastern coastal provinces, which have the highest concentrations of TVEs, as farmers have become increasingly aware of the many forms of non-agricultural work that offer better pay. However, remote rural areas of inland provinces still rely exclusively on agriculture. As a consequence, the western and central areas of China have a huge surplus of rural labourers. The flow of rural migrants is hence from the inland and western parts of China to the coastal provinces, especially from populous provinces such as Sichuan, Hunan, Henan, Hubei and Anhui to coastal regions like Guangdong, Fujian, Zhejiang, Jiangsu

and Shandong provinces. Escape from poverty and improvement of living standards are the main drivers of labour migration. Rural labourers usually undertake the low-paid jobs shunned by the urbanites, which are, more often than not, dirty, difficult and dangerous, such as work in construction and transportation, as kitchen helpers, cleaners or refuse collectors.

### **Temporary migration after the late 1970s**

Studies note that there is a 'temporary population' of some 80–100 million people who stay outside their own *hukou* registration place (Chan 1996b, 1999; Yang and Xiao 1996; Zhang 2000). Temporary migration has become an important aspect of population movement in China. It has provided an important mechanism with which to manage rural surplus labour and fluctuating demand for labour in urban sectors (Goldstein, *et al.* 1991; Goldstein and Goldstein, 1991a; Goldstein and Goldstein, 1996). Unlike permanent migrants, temporary migrants have not received permission to change their place of registration or to convert their status of agricultural population, but they are allowed to live in cities or towns as long as they like or until the government requires them to return to the countryside (Goldstein 1990). Government regulations require temporary registration for stays of three or more days in an urban area. Yet it appears that temporary residents often do not register with the local authorities. Thus, the statistics are likely imprecise.

The family, rather than the individual, is often the basic decision-making unit in migration (DeJong and Gardner 1981). While economic motives are important, social factors such as the presence of supportive relatives at the destination can lead to family-based chain migration. On the other hand, migration may be ruled out in order to enable the family to stay together and assist each other irrespective of economic circumstances (Hugo 1981). The lack of government support for vulnerable groups in China, such as the poor, the disabled and the elderly, suggests that the family has a key role in the migration decision-making process (Rowland 1992). Before the late 1970s, the majority of Chinese families had three generations or more living together under the same roof. Since the early 1980, due mainly to the implementation of the national family planning policy, the family structure has changed greatly. As Ma (1987) pointed out, on the basis of the 1982 census, 67% of households consisted of two generations and 14% of one. Family allegiances placed greater emphasis on responsibilities to children and elderly parents. Nevertheless, the Chinese family remains patriarchal, despite the government's commitment to gender equality. There is still a strong preference for sons, who have better access to education, desirable employment and family inheritance (Arnold and Liu 1986). The characteristics of family structures most likely affect the new trends of forced migration.

### Effects of hukou

Even though the *hukou* became less stringent in the 1980s and in the 1990s, it still remains in place, permitting urban residents to enjoy benefits and opportunities, e.g., assistance in education, jobs, food, housing and medical care (Chan and Zhang 1999). Children of rural migrants do not have an equal right to education. Migrants must pay high tuition fees, namely *zanzhu fei* (in the form of involuntary donation to education). Migrants are not entitled to subsidised housing rental or to purchase homes in urban areas. The rental price of houses is prohibitive for most migrants, so that they are forced to rent on the urban fringe and take residences without sanitary facilities. Migrants are required to provide three certificates and a card to be considered as a legal temporary migrant. These are: an 'identification certificate' (issued by the police office of the origin county), a 'temporary resident certificate' (issued by the destination police office), an 'employment certificate' (issued by labour bureaus of origin counties to certify eligibility for employment), and an 'employment card' (issued by the labour bureaus of destination cities to show proof of employment in the cities). The *hukou* system and these policies, together with the various restrictions on rural migrants continue to discourage migration from rural to urban areas.

The *hukou* system does not forbid the free flow of rural migrants, nor does it offer these migrants the right to stay in urban areas permanently. The uncertainty of their future in the city forces many migrants to view themselves as temporary residents. The higher income and greater opportunities offered in the cities, compared to the agricultural or non-farm sectors in rural areas, are the main reasons for individual migration. However, if there is no essential change in the *hukou*, it is unlikely that rural migrants could obtain the same social status as urban *hukou* holders. The *hukou* reforms in the 1980s and 1990s were characterised by the conditional opening of urban residency to rural people and relaxing policy but not the quota control on the conversion of agricultural to non-agricultural population. A person's socio-economic eligibility is still linked with his/her *hukou* status. The current situation of segregation between rural migrants and urban residents will persist with serious social consequences. To change one's social and economic status is a basic right and evidently the ultimate desire of most migrants. As Croll (1994) identified, personal mobility is one of the dreams cherished by Chinese peasants, who believe that better lives can only be attained by emigrating. There continues to exist huge differences in economic opportunity and social position between those with urban *hukou* and those with rural *hukou* (Chan 1996b). This perception will deeply affect rural resettlers' expectations of forced TGP displacement and resettlement. As non-agricultural *hukou* status entails more privileges and opportunities, there will always be a great demand for it. To be able to convert rural or agricultural *hukou* status to urban or non-agricultural *hukou* status by taking advantage of the displacement and resettlement associated with the TGP is one of the major hopes of rural resettlers.

**Impacts of migration on origin and destination areas**

Much internal migration is economically motivated. People participate in internal migration not only to serve their country or further occupational ambitions, but also to improve or maintain the living standards of their families (Rowland 1992). Migration thus affects both the place they leave and the place to which they move (Clark 1986). Few studies on the impact of migration on the sending areas have been done in China. Generally, it is supposed that out-migration has positive impacts on rural areas due to increases in rural incomes and greater equality among regions (Rozelle *et al.* 1999). It is believed to ease the pressure on local land and resources, and provide valuable capital through remittances and temporary wage earnings (Balan 1981; Skeldon 1990). The dramatic growth of the 'floating population' has resulted in large cash flows between provinces by way of remittances or periodical returns to migrants' hometowns or villages. A survey of 493 migrant farmers working in the suburban districts of Beijing found that 75.3% sent money to their families (Li 2001). The average remittance was more than 2,600 yuan, in 2000. Such remittances contributed to more than half of the annual total income for 46.3% of these families. More than one in every five (22.3%) families relied on such remittances, making up some 80% of their family's total income. A large proportion of these remittances have been invested in developing processing and tertiary industries in the origin areas (Chang 1996). Some studies (Goldstein 1978; Nolan 1993) suggest that the potential for alleviating poverty through migration is enormous. The transformation of the labour force from the 'traditional' sector (agriculture) to the 'modern' (secondary and tertiary industries) indicates the different stages of social and economic development in a country or region (Miao 1993). Rural development is a long process. It includes not only the satisfaction of basic needs for food, housing, health and safety, but also the improvement of life quality, accompanying improving wealth, good jobs and enhanced educational opportunities.

Out-migration is generally considered to be an effective way to transfer surplus labour in rural areas and to reduce local population pressure. However, in some circumstances, the urban areas to which rural migrants are moving are already saturated in terms of labour supply (Smith 1996). In order to provide job opportunities for the urban dwellers and retrenched workers, many large cities have taken measures to restrict the size of the floating population (Gu 1998). Hence, migration from the countryside to cities has become more difficult than in previous years.

Many studies focusing on rural-to-urban migration have paid much attention to migrant receiving areas. On the positive side, in-migration helps to fill vacancies in urban markets that are unappealing and thus difficult to fill, such as construction workers, cleaners, repairers, service workers in restaurants, babysitters and nursemaids. This kind of work is typically needed in the urban economy to facilitate mass consumption (Chan 1994b). Migration allows the labour force to meet the requirements of rapid industrialisation in the cities and special economic zones, where temporary populations are more than twice the number of permanent residents. Some studies state that the most visible impact of the floating population is their important role in municipal construction projects (Sben and Dong 1992; Chang 1996).

A negative image of rural migrants has been portrayed in the urban environment. Rural migrants are largely stereotyped as the major source of crime and violence (e.g., in Beijing 70% of criminal activity is undertaken by the temporary migrants, see <http://npc.people.com.cn/GB/14957/53049/4951165.html>), and for causing crowding and violating family planning policies (Davin 1996). Urbanites usually view those rural migrants as being inferior and discriminate against them in various ways. The capacity of the urban environments to absorb rural labourers is limited due to inadequate infrastructure, facilities and services in areas such as housing, hospitals, power, water, gas, transport, as well as inefficiencies in economic management and planning in urban industries. The existence of the hukou system has also slowed down the process of urbanisation in China. Urban governments face the pressure of investing additional money to accommodate more intensive use of infrastructure and public services. The municipal governments and urban residents usually consider migrants as undeserving users of these services.

Migration has promoted social change and economic growth in both the sending and receiving areas. For instance, migrants help transmit useful market information, learn technologies, and bring both physical and human capital into their origin areas, all of which are rather deficient but vital to the development of the rural economy (Smith 1996). Nonetheless, it also has produced some negative features in both areas. Large population movement to urban areas has increased demand and pressures for municipal services and infrastructure. The biggest and most visible impacts are in transportation and population control. The public transportation in almost all large cities has been overloaded (Chang 1996). This problem is especially pronounced during each Spring Festival season. All the railway networks, from south to north and from east to west, are extremely crowded, mainly by floating labourers returning to their hometowns.

Most of the migrants are young male labourers. This has resulted in the 'feminisation' of the rural workforce. Due to a lack of a physically strong labour force and inadequate investment in land, serious issues in agricultural development have been produced, especially since the 1990s. The 'three-dimensional rural issues' (*sannong wenti*), referring to issues concerning farmers, agriculture and rural development, have become critical in rural China in recent years.

### Summary

During the four decades between the 1950s and the 1990s, China experienced large-scale migration. More than 10 million people were transferred by the government to frontier provinces and regions. Some 17 million educated urban youths were sent to the countryside to receive 're-education'. Over 12 million people were displaced for the construction of 86,000 reservoirs. Before the late 1970s, migrants moved from the densely populated eastern and central provinces to sparsely populated frontier areas in the western, northern, and inland parts of the country. After the late 1970s, however, the direction of migration has been from the comparatively underdeveloped inland provinces or from the western and central parts to the developed coast, especially the

eastern and southern coastal areas. Rural-to-urban movement is the current main mode of migration.

The *hukou* system is a powerful mechanism, which has played a major role in directing social and economic development since the 1950s. The system is a part of China's planned and centralised economy. It divides the population into two groups (agricultural and non-agricultural), and endows each with vastly different opportunities and socio-economic status, producing social segregation and disparity. The economic reforms (commencing in 1978 and initiated in the rural reform) have relaxed the restriction on rural-to-urban migration and produced a floating population in China. The floating population has played an important and positive role in the rapid growth of the urban economy and in narrowing the divide between the rural and urban areas, albeit with some adverse impacts on the receiving and sending areas.

Migration in China is closely related to economic development. Migration can be divided into three categories: (1) movements from the coastal urban regions to western and northern areas under the programmes of the 'Third Front Construction' and 'supporting the frontier areas' during the 1950s and 1970s; (2) urbanisation characterised by floating labourers moving from rural to urban areas since the economic reforms of the late 1970s; and (3) relocation produced by development projects. Forty million involuntary migrants have been produced by projects since liberation (Shi and Chen 1999).

## **Three Gorges Project**

### ***Major task of the project***

The TGP has three major purposes: flood control, hydropower generation, and navigation improvement. The project is designed to enhance the flood-preventing capacity from the current 10-year frequency of flood to 100-year, with a 22.15 billion m<sup>3</sup> of flood control storage capacity of the reservoir (CWRC 1997). Even should a 1,000-year frequency or over-flooding occur, with the designed capacity of the reservoir together with the assistance of appropriate operation of the flood diversion and retention works in the mid-stream of the Yangtze, the vast region downstream of the dam would be saved from destruction. The threat of enormous losses and damages caused by the frequent flooding in the middle and lower Yangtze River would be mitigated.

As the world's largest power project, the aggregate installed capacity of the 26 sets of turbine generator units, with 700 MW for each, will be 18,200 MW. Such a capacity will yield a total of 84.7 billion kW•h of electricity a year, accounting for approximately one-tenth of the nation's current demand for electricity, replacing the burning of 50 million tonnes of raw coal annually. The generated electricity will be mainly transmitted to east and central China and partly (around a quarter) to southern Guangdong province, where rapid economic growth and a growing population have increased the demand for electricity.

The 660 km-long waterway from Chongqing to Yichang will be greatly improved by the completion of the project. This will make it possible for 10,000-ton ocean-going freighters to sail directly upstream to Chongqing, the largest city on the upper Yangtze. The annual one-way navigation capacity will be enhanced from the present 10 million tons to 50 million tons.

### ***Project investment***

The total static cost of the TGP is estimated at 90.09 billion yuan (US\$ 1=RMB 8.27 yuan as at 2004), based on the price of the end of May 1993, comprising some 50 billion yuan for the dam project itself and 40 billion yuan for the inundation and human resettlement (CWRC 1997). Taking into account price escalation and interest during the construction period, the total investment is estimated to be some 180 billion yuan by the completion of the project in 2009.

### ***Construction stages of the project***

The total duration of the project will last 17 years to 2009, and fall into three successive construction stages. During Stage I (1993–97), the open diversion channel and the temporary ship-lock on the northern bank of the river were finished. The main course of the Yangtze River was blocked by a 790 m long, 60 m high cofferdam on 8 November 1997, marking the end of the first phase of the dam construction.

In Stage II (1998–2003), the construction of the transverse cofferdams both upstream and downstream, permanent dual-line five-stage ship-locks, and an initial 14-turbine generator station on the northern bank were completed. This posed the greatest challenges during the overall project construction, encountering major technological issues in the construction of the dam and relocating the majority of people to make way for the reservoir. By June 2003, the reservoir was filled to the 135 m level mark. In July 2003, the first group of turbines started to generate electricity.

The project is currently at Stage III (2004–09). The dam building (185 m high) was completed in May 2006, representing landmark progress in the construction (People's Daily Online, accessed on 20 May 2006, <http://english.people.com.cn>). The formidable task of building power houses, the ship-lock and ship-lift are under way. Other difficult tasks in this stage include resettlement, prevention of geological disasters and biological rehabilitation.

### ***The Three Gorges Reservoir area and present status of resettlement***

The Three Gorges reservoir area is situated at the lower section of the upper reaches of the Yangtze (Map 2). The dam site is situated in Sandouping of Yichang City, Hubei province

in central China. The dam site is about 40 km upstream from the existing Gezhouba power station. According to the second survey conducted by the Changjiang (Yangtze) Water and Resources Commission (CWRC) during 1991–92, at the normal pool level of 175 m at the completion of the dam in 2009, the reservoir will stretch 660 km long and average 1.1 km wide, covering a total area of 1,084 km<sup>2</sup> (CWRC 1993). The reservoir will flood 24,500 ha of cultivated land and orchards, and about 35 km<sup>2</sup> of residential districts and 824 km of roads. The affected area includes 20 cities, districts and counties, 356 communes, 116 townships and 1,711 villages in Chongqing municipality and Hubei province. The area affected also includes 108 historical and cultural monuments. A large number of people (846,200 persons) will be displaced to make way for the dam project. These people are referred to as the 'directly affected population' (*zhijie yanmo renkou*), that is, people whose housing will be submerged. Among these, some 350,000 are rural residents, accounting for 41.4% of the total number of people to be displaced. Although rural migrants to be displaced make up only 41.4% of the total, the problems associated with their resettlement are generally greater than those associated with resettlement of urban dwellers.

Due to its vast size and also for ease of project management, the Three Gorges reservoir area is divided into two regions — the Chongqing region and the Hubei region — on the basis of flooding status, the numbers of people to be displaced, responsibilities and administrations of displacement and resettlement. The Chongqing reservoir region is the area with the largest proportion of farmland to be inundated and population to be displaced. It makes up some 80% of the flooding losses (mainly farmland, urban sites, industrial enterprises, infrastructure and cultural relics) and resettlers to be relocated. As highlighted by Huang Qifan (Deputy Mayor of Chongqing municipality) when he was interviewed by the Chinese media on 13 June 2005, the latest estimate of the number of people to be displaced in the Chongqing reservoir section ranges between 1.12 and 1.13 million. Several important causal factors for the increased number of migrants include: natural growth of the population over the 17-year dam construction period; increasing fertility rates in the reservoir area; and inflows of people due to marriage. The process of TGP resettlement runs concurrently with the dam construction phases. By the end of April 2006, the total number of migrants displaced in Chongqing amounted to 962,000 persons, accounting for 92.7% of the planned figure (Ou and Lang 2006). This indicates that the major proportion of TGP resettlement has been accomplished, while the whole TGP resettlement work will be completed by 2008.

Specifically, since 2000 the government has arranged for the removal of rural residents from the reservoir area and resettled them in distant locations. By the end of June 2006, some 162,000 rural residents had been moved out of their origin counties in the reservoir area. Through the GODR schemes, these rural migrants were resettled in 11 designated provinces or municipalities and economically developed areas on the east coast and in the middle and downstream areas of the Yangtze River basin (which will benefit from flood prevention and electricity generation provided by the project) and in other unflooded counties in the reservoir area.

The majority of the rural residents (some 95,000) resettled in the 11 remote provinces originate from eight counties in the Chongqing reservoir section. Taking into account some 24,000 migrants who voluntarily moved out the reservoir area and resettled in 27 provinces nationwide in earlier years (mainly from 1996 to 2000), some 186,000 rural migrants have moved out of their origin counties in the reservoir area and resettled in distant locations. This figure accounts for 46% of the total number of rural migrants (405,000 persons) to be displaced (CRB 2006).

As proposed by the Chinese government, the monumental project will play a decisive role in China's future development, greatly benefiting both the country and its people. However, the economic development in most counties in the reservoir area has been greatly impeded by the arduous process of resettlement. How to assess the interplay between displacement and development was a focus in my interviews with officials, specialists and staff responsible for displacement at all levels.

### **Developmental resettlement research in China**

The Chinese government proposed a development-oriented resettlement policy in the mid 1980s to solve the residual issues of reservoir resettlers resulting from past dam and reservoir projects, and to deal with resettlement associated with the Three Gorges Project. TGP 'developmental resettlement' is based on a long period of feasibility assessments and eight years of resettlement trials before formally commencing in 1993 (Xin and Jiao 1998). A pioneering systematic study on the TGP resettlement was conducted by the Changjiang (Yangtze) Water and Resources Commission (CWRC 1997), based in Wuhan City (the capital of Hubei province), the designer of the dam project and planner of the associated resettlement. It was a comprehensive approach, placing emphasis on the four major realms of resettlement: rural resettlement; urban (city and township seats) relocation and reconstruction; relocation of industrial and mining factories or enterprises; and relocation and reconstruction of infrastructure in the reservoir area. The latter three segments can be broadly termed as 'urban relocation'. However, that study largely represents the optimistic expectations of the project's decision-makers rather than being an objective account.

A number of highly localised studies have been undertaken but are largely inaccessible, being in the form of unpublished papers and reports. Such studies were conducted mainly by officials, departments, and institutions accountable for the TGP resettlement at the provincial and county levels. They are focused on local resettlement or specific aspects of the displaced people in the sending and receiving areas.

One study presented by Wei (1999) identifies some crucial issues pertaining to the resettlement policy. These include: overestimating the capacity of rural resettlement to overcome the local deficiency of farmland by reclaiming uphill land and improving existing land with low yields; removing and resettling rural persons uphill or away from the reservoir via the 'near resettlement' scheme, a process which may lead to deterioration of the ecological environment in the reservoir area; and, unfeasible planning which

assumed that the local secondary and tertiary sectors could absorb as much as 40% of rural relocatees (REG 1988).

The doctoral dissertation of Li Heming (2000) described the process of displacement and resettlement of the TGP. Adopting an empirical approach, he compared resettlers' experiences before and after displacement and evaluated relocation strategies and problems. Some important themes relating to inequality, poverty, human resources, social, political and spiritual aspects of welfare were emphasised. The first theme was the concept of displacement and resettlement, which was seen mainly as a social process, rather than a complex mixture of economic and environmental issues. The second theme was rural resettlement. The operations and some consequences of the 'near resettlement' scheme were discussed. There was little attention paid to distant resettlement, which has become a significant strategy in dealing with rural resettlement. The third theme was the marginalisation of people after displacement. His study addressed this issue in a general way but did not differentiate between people living in dissimilar rural settings (peri-urban districts or purely rural areas). Consequently, the extent of the risk of marginalisation among different groups of people was not examined. Equally important, vulnerable groups, for example, female resettlers whom are the agricultural sector's prime labour force and who make up half of these displaced, did not receive specific attention. More importantly, this study did not address crucial issues in rural resettlement, such as land issues, the human-carrying capacity of land in the resettlement communities, the comparative quality of land and similarity in location, land scarcity and availability, and the land tenure system.

Another important study on rural resettlement and sustainable agricultural development in the Three Gorges reservoir area was conducted by the Geographical and Resource Institute of the Chinese Academy of Sciences (GRICAS 2000). This was a quantitative analysis of the carrying capacity of land of the reservoir region to predict the capability of local resettlement in the reservoir area. It also proposed some agricultural development strategies for the reservoir area. This study underlined a critical issue, rural resettlement and agricultural development in the reservoir area.

Internationally, studies relating to the context of the TGP resettlement focus mainly on the feasibility of the TGP (Fearnside 1988; Ryders 1988; Dai 1994, 1998), the eco-environmental issues (Luk and Whitney 1993; Vig and Axelrod 1999), and the human rights of the displaced people. International River Network (<http://www.irn.org>) in America and Probe International (<http://www.probeinternational.org>) in Canada are studies concerning the human rights of people displaced by the project. These studies, mainly conducted by overseas scholars, officials, and non-governmental institutions, are based on secondary data derived from official statistics, reports, news, and experience in other countries. Heggelund (2004) conducted an impressive study that looked primarily at resettlement and environment issues related to the TGP, and considered policymaking for these issues. The core research question asked was why resettlement policy changes. Through applying the 'fragmented authoritarianism approach' to the study, the scholar

explored the changes of resettlement policymaking in China and assessed the validity of this approach. It provides an understanding of the social, political and economic factors of the TGP, shedding light on policy-making procedures and political priorities over the past decade. The methodology used in her study was 'to study Chinese language public materials regarding the resettlement policy and environmental developments for the project' (Heggelund 2004, p. 8). Therefore, the main data sources for the work came from 'public reports, yearbooks, articles in newspapers and academic journals, and books' (Heggelund 2004, p. 8). Interviews (loosely structured and not bound by the questions) with Chinese officials, academics and others provided supplementary materials used in her study.

## Study areas

The present study draws together several methodologies — interviews and social surveys, geographic information systems (GIS) and statistical analyses, and documentary analysis — to address the dynamics and complexities of social, environmental and economic issues related to the TGP resettlement initiative. In attempting to reflect the complex nature and trend of rural resettlement, the study concentrated on two regions: Sichuan province, as shown in Map 3; and the Chongqing reservoir section in the Three Gorges reservoir area (refer to Map 2).

The study draws samples from two of the 12 provinces (including Chongqing), which have received resettlers since 2000. Sichuan province is the largest destination area in terms of the absolute number of migrants received (10,602 persons). Kaixian County in the Chongqing reservoir area and Deyang prefecture in Sichuan are selected for closer examination. They are representative of different resettlement settings, geographically and economically. The micro dimension of the study involves a number of resettlement communities at the lowest administrative level of the township and village. The administrative levels in use in China are, in decreasing order, the state, province, county, township and village. Three principal categories of resettlers were investigated: people displaced by the 'near resettlement' approach in the reservoir areas; people having been displaced via the 'government-organised distant resettlement' (GODR) scheme in Sichuan; and people to be displaced in the reservoir area.

When conducting the survey on the number of affected population and losses of tangible assets in 1991–92, the Changjiang (Yangtze) Water Resources Commission defined a 'migrant' produced by the TGP as an individual who resides in the areas below the elevation of 177-m (175-m inundation line plus a 2-m buffer zone to accommodate variations in water levels due to waves and wind) and must be relocated. This definition is applied in this study. Throughout the discussion, the term 'resettlers' and 'migrants' associated with the TGP are used interchangeably, and both refer to persons (male and female) displaced or to be displaced by the project.

## Organisation of the book

The book is organised into 10 chapters. Chapter 2 reviews the literature with respect to the principal concepts and main theoretical perspectives relating to involuntary migration and identifies the key issues in practice that have shaped the process of development-induced displacement and resettlement. It examines involuntary migration in the context of large dam construction, especially in underdeveloped countries, including China, and the associated impact of these hydro projects on the reservoir areas and displaced persons. Some important conceptual models of displacement and resettlement are also discussed. Finally, some factors that constrain the process of resettlement and which often lead to the impoverishment of the displaced people post resettlement are analysed.

In order to achieve the aims of this study a range of information sources and data collection methodologies were employed. Chapter 3 critically assesses the sources of information used in the study and outlines the methodology used in primary data collection. This is necessary to understand the discussion and analysis in later chapters. Essentially, the study employed a mixed methodology involving both qualitative and quantitative approaches.

Chapter 4 examines the institutions that form the base of 'developmental resettlement' in China and have shaped the course of the TGP resettlement. 'Institution' here refers to the policies, principles, legal and administrative spheres associated with reservoir resettlement in China, in particular, the TGP resettlement. Important policies and changes in policies are analysed. Crucial problems relating to the implementation of the policies and resettlement schemes are identified. Participation of the affected people (resettlers and the host people) is explained.

Chapter 5 develops a conceptual framework relating to the economic, environmental and social impacts of large hydro projects. While some critical issues of the three dimensions of impacts (economic, environmental and social) of the TGP resettlement are important, environmental and social impact assessments are especially highlighted. The processes of 'near resettlement' and 'government-organised distant resettlement' are employed as the main contexts under which the frameworks of environmental and social impact assessments will be built. Equity, sustainability and livelihoods closely relate to benefit sharing, participation, production rehabilitation, social integration and social differentiation (e.g., gender). These aspects should be the main components in a social impact assessment.

Chapter 6 examines the status, circumstances and developmental issues of rural women displaced by the monumental TGP. It reveals that TGP resettlement is leaving women worse off as family members, as well as worse off than male members. Woman migrants are more likely to become impoverished than men, partly because women make up the main labour force in agricultural sectors. Most women are unable to achieve occupational mobility in the process of resettlement. Fewer employment opportunities, a gender-segregated labour market, low level of human capital and social prejudice are principal causes. Land provision for resettlers is inadequate with a lower quality of productivity. Marriage is a means for some women to remain in or move to

the reservoir area to improve their socio-economic status, but bias against granting of 'resettler' status to married women and their generally low levels of education and lack of occupational skills work against them. It is imperative that the authorities integrate a gender perspective into policy-making and the design of resettlement schemes.

Chapter 7 takes Yunan village in Kaixian County, an agrarian community which will be inundated by the Three Gorges dam, as a case-study area. Based on recent land-use survey and population data of the study area and using GIS-based multi-criteria analysis in land-use planning, this chapter analyses the characteristics and changes of land use in both the inundation and resettlement areas. Undeveloped land is scarce in both areas. The non-flooded cultivated land is distributed mainly on steep slopes (over 25 degrees). There is a discrepancy between the amount of land required by settlers and that which is available in the designated resettlement communities. The study suggests that resettlement should consider the human-carrying capacity of the land. This study, from a community standpoint, sheds light on the interplay between land-use planning and migrant resettlement and provides constructive suggestions for the TGP resettlement strategies.

Chapter 8 analyses two major issues in relation to land-based rural resettlement: land protection works to minimise the number of people to be displaced and maintain fertile farmland in the inundation area; provision of compensation for land losses and its impacts on the resettlement process. Kaixian County is the case-study area. It has the largest population to be displaced and land area to be submerged among the counties in the Three Gorges reservoir area. The measures used to protect land through appropriate engineering works are analysed. It provides an evaluation of the arrangements made for compensation and resettlement to the farmers who will be displaced. Under present regulations the specific value of peri-urban land is underestimated: neither cash-in-hand arrangements nor land-for-land swaps are adequate. There are other problems. The availability of suitable land for resettlement is scarce and rarely of equivalent quality. The inflexibility of the 'household responsibility system' contributes to the problem. It is suggested that some of those facing displacement should be encouraged to accept resettlement in places at considerable distance from their current homes and that a more creative approach should be taken to the issue of compensation to enable people to develop their trade and business skills.

The Chinese government has committed to resettlement as a 'political task' of considerable magnitude. Chapter 9 maps out the spatial and temporal patterns of the 'government-organised distant resettlement' in 11 designated recipient provinces and municipalities in China. The GODR schemes involve agriculture or land-based resettlement. Strict criteria and special factors in resettlement location selections are discussed and measures and issues on land readjustment in the host communities are examined. Critical problems regarding fair allocation of compensation and funding, governmental functions, and planning for the restoration and further reconstruction of livelihoods and production of the displaced migrants are highlighted.

Chapter 10 concludes the research by bringing the results from previous chapters together and discussing the main findings of this study. It falls into four sections. The

first section draws major conclusions on the resettlement outcomes as they relate to the different samples in this research. The second section summarises the major strengths of the government policies for the TGP and implementation of those policies. The third section summarises the major weaknesses of government policies for the TGP and especially the implementation of those policies. The last section reverts back to the discussion in Chapter 2 on models and perspectives of involuntary resettlement, and discusses their strengths and weaknesses based on the present TGP resettlement study. Recommendations on further research to better understand the TGP resettlement process and to improve existing policy and theoretical frameworks for involuntary resettlement are provided.

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