

Chapter Seven

A Survey of Resettlement in Badong County, Hubei Province

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Developmental Resettlement

There are two basic approaches to population resettlement resulting from dam and reservoir construction. The first is straight compensation, in which the government provides cash and land directly to individuals as reimbursement for losses resulting from inundation. In the second, the government not only reimburses the people for their losses, but also provides for adequate housing and other basic infrastructure in the new location. Experience has shown, however, that neither approach is very successful.*

In the Three Gorges project, a new approach to resettlement, called "Developmental Resettlement" (*kaifashi yimin*) is being attempted. Rather than concentrating on the direct compensation of individuals as the other two approaches, Developmental Resettlement professes to provide economic benefits to rural resettlers through government-financed reclamation of higher-elevation land, cultivation of cash crops, and investment of limited funds into industry and agriculture to create new jobs, in addition to compensating individuals. The policy is designed to enhance the long-

*China currently has approximately 10.2 million officially classified "reservoir relocatees" (*shuiku yimin*). This group includes those who were forced to relocate from dam projects built since the mid-1950s and their descendants. The vast majority of them live in the countryside, and about half were uprooted for major projects financed by the central government. See, Jun Jing, "Rural Resettlement: Past Lessons for the Three Gorges Project," *The China Journal*, no. 38 (July 1997), pp. 65-92.

term capacity of the people to make a living and to facilitate resource development in their new locales.

Debate over this third approach to resettlement has been going on for years. The crux of the debate is over whether local environments can support the proposed developments. Other key issues include planning for nonagricultural employment, the ability of the people to adapt to new natural and social environments, and the redistribution of resources within resettled communities.

With these issues in mind, in July 1992 we accompanied the Beijing University Three Gorges Project Research Group (*Beida sanxia shijian kaocha tuan*) to the Three Gorges area. The group's visit lasted 15 days, during which time we conducted fieldwork at trial resettlement projects in Badong County, Hubei Province.

Badong County

Badong County is an autonomous area of the Tujia and Miao people situated in western Hubei Province.* The county is located in the central region of the Three Gorges between the Xiling and Wu gorges, about 60 kilometers west of the proposed dam site at Sandouping. Wu Mountain is directly to the west of Badong, and to the east is the town of Zigui. At its most northerly point, the county is bordered by the Yangtze River, and at its most southerly, by the Qing River. These boundaries have created a long narrow county measuring 135 kilometers by 40 kilometers, and covering 3,219 square kilometers. The county consists of 26 townships, 481 village committees (*cunmin weiyuan hui*), 3,925 village groups (*cunmin xiaozu*),** and 13,081 households, with a population of 480,000.

*The Miao and Tujia are a tribal people of the Sino-Tibetan language group who have often been regarded as inferior Han. They have been part of the Chinese empire since the Mongol conquest in the thirteenth century. Their populations are located primarily in China's southwest provinces, but also extend into Vietnam, Laos, and northern Thailand. According to the 1990 census, the two groups number 7.4 and 5.7 million, respectively. Autonomous regions and areas in China are granted limited self-governance, religious freedom, and greater freedom from China's strict population control policies, but this has not always protected minorities from the imposition of centrally determined policies, such as the Three Gorges dam.

**In 1987, the village committees, along with the townships, replaced the government of the People's Commune as the legal basis for "village self-government" in China. Village groups are administrative subunits of the committees.

Most of the county is mountainous, steep, and at a high altitude, with its highest peak reaching 2,300 meters above sea level. More than 70 percent of the land is both mountainous and over 800 meters above sea level. The average gradient slope of the land is 28.6, with 66 percent of it having a gradient slope of 25 or more. Only 13.25 percent of the county's land is arable, 94 percent of which is dry, nonpaddy land, and 63 percent of which is found above the 800-meter elevation mark. Badong County has no first-grade, prime arable land, and more than 75 percent of the arable land is of poor quality, below the fourth grade.*

Badong County is situated at the key hub of the western Hubei transportation network, and its transportation system is relatively well-developed as compared to adjacent areas in the western part of the province. Highways crisscross the county in both north-south and east-west directions, and the Yangtze and Qing rivers flow through the county for 39 kilometers and 37 kilometers, respectively.

The county is primarily an agricultural area with millet, wheat, sorghum, paddy rice, and sweet potato production. Vegetable oil products include rapeseed, sesame, and peanuts. Cash crops include oranges, peaches, apples, and peas. In 1991, the total value of agricultural production was ¥290 million. Important local industries are mining, hydropower, fertilizer production, agricultural machinery, printing, brewing, construction materials, and food processing. The county boasts 79 enterprises, employing more than 7,500 workers. In 1990, its fixed assets were ¥100 million, and in 1991, the total value of industrial production was ¥150 million.

The vast majority of Badong's residents are adults, and the median age is twenty-six years. Most have only completed elementary school, and a labor surplus currently exists.

Resettlement Planning and Trial Projects in Badong County

Based on 1991 data, the Three Gorges dam is expected to submerge 11 townships and affect 220 village committees and 70 village hamlets in Badong County. It will directly affect 13,337 people, 39 percent of the

*Any land ranked below the fifth grade cannot be used productively for agriculture, while sixth-grade land will only support forest cover. Seventh- and eighth-grade lands are deserts.

total number to be resettled in the county, who will have no choice but to move.* In addition, 5,954 mu of arable land, 6,313 mu of orchards, and 93 kilometers of roads will be submerged.

In 1985, a resettlement bureau was established in Badong County. Following the central government's policy to "develop resources, move people back from the river, settle them in nearby areas, and focus on macroagriculture," the county coordinated resettlement programs for townships, villages, and village groups. To determine whether conditions in a particular area would allow people to move back from the river and settle in nearby areas, the county undertook its planning from the bottom up, that is, from village groups, to village committees, to townships, and then to the county. The county then selected areas where the policy was likely to be successful, later expanding the trial projects to the rest of the county.

Of the 13,337 people to be resettled, the county plans to place about 8,000 in agricultural employment, 4,000 in light and service industries, and 1,000 in the tourist industry. Five of the county's districts (*qu*) have been chosen to receive most of the relocatees: In the two valley areas, oranges and other seasonal fruits will be grown; in the Shennongxi district, orchards, tea gardens, and tourism will be developed;** in Guandukou subdistrict, oranges will be grown and river ports built; and in the suburbs of Fuling Township, vegetable production and industry will be developed.

Over the past six years, Badong County has invested ¥40 million for trial resettlement projects in eight townships. In total, 6,600 mu of mountainous land has been developed at 90 different sites. The county has established five trial agricultural projects to conduct research and to provide technical training for the locals. These township-level projects have developed 1,228 mu of land, 353 mu of which will be used to settle intervillage relocatees.

An additional 4,900 mu of newly developed land (at 79 different sites) has been earmarked for intravillage group resettlement. On this land, over 3,000 mu of orange groves have been planted, the first batch of which has just begun to produce fruit. In addition, 27 water storage and irrigation facilities have been built with a capacity of 14,000 cubic meters. At the

*Twenty-one thousand others whose land will not be submerged by the reservoir are also slated for resettlement for a variety of reasons related to the project.

**There is evidence that opium poppies too are being cultivated in the higher elevations of Badong County. See Epilogue.

same time, the county has also encouraged more farmers to grow oranges and other drought resistant crops.

Overall, these trial projects have been successful. Data from five of the trial projects reveal that total incomes and per-mu incomes have increased dramatically—from ¥58,309 with per-mu yields of ¥64 in 1987 to ¥174,990 with per-mu yields of ¥193 in 1989.

There are, however, a number of problems with the trial projects. Land available for resettlement is limited, and this does not take into consideration the fact that people may be forced to resettle for a second or third time when the original resettlement sites become uninhabitable or untillable. There is also a shortage of resettlement funds, with most of the money being targeted primarily for individual compensation. At the same time, newly developed lands lack investment for irrigation systems and fertilizer production; there has been inadequate planning for placing people in industry and tourism jobs; there is a lack of technically trained personnel and the population is poorly educated; the system for redistributing and managing land and other resources is poorly developed; and, clan forces have an inordinate influence on village government—without their support, village administrations have been unable to take action on trial projects. In short, despite the lofty claims of Developmental Resettlement, resettlement is proceeding in the old way and encountering familiar problems.

Problems with the Trial Projects

Limited Agricultural Capacity of the Region

Dam supporters claim that there is plenty of good agricultural land for resettlement in Badong County. With 280,000 mu of undeveloped land available, and only 13,337 people to be resettled, there should be more than enough land—about 21 mu per person. But dam supporters have not considered the quality of the land or the wishes of those being moved in their calculations. One of the trial sites illustrates the problem.

This particular trial site is comprised of two mountains and one valley, with the mountains surrounding the Yangtze River on its northern and southern sides. Most of the region has a very high elevation. Its highest point is 1,722 meters above sea level, and its lowest is 66.8 meters above sea level, with an average altitude of 657.5 meters. Significantly, undeveloped land more than 600 meters above sea level is not suitable for grow-

ing oranges and, therefore, is not agriculturally useful for local residents. Moreover, according to China's Water and Soil Protection Act, land with a gradient slope greater than 25 cannot be used for agriculture in terraced fields. The average gradient slope of the land at the trial site is 27.8, and 61 percent of the land has a gradient slope greater than 25. Finally, 10 percent of the land consists mostly of rock. These facts alone mean that the total amount of land available for development is not 280,000 mu, as dam supporters claim, but rather 80,000 mu. Moreover, what good land does exist is further threatened by deforestation and consequent soil erosion, and the long-term impacts of human habitation. Altogether, these factors contribute to the fact that nonhumus-type land that is inappropriate for any cultivation whatsoever constitutes 84 percent of the [280,000 mu] of barren land.

Social and cultural factors further limit the availability of undeveloped land for resettlement. According to our research, people slated for resettlement who have been living by the river are, at most, only willing to move halfway up the mountain and are completely unwilling to move on to the other side. They argue that moving from the riverside to the high mountains will radically change their lifestyle and make it much more difficult for them to make a living. In 1966, to alleviate overpopulation, a group of farmers were relocated to a lush area 1,800 meters above sea level. That site was on a plateau and had more fertile soil than do the currently proposed sites. However, most of those moved soon returned to their riverside homes, even though this meant converting to nonagricultural work as they had forever lost their farmlands.

Altogether, these natural, social, and cultural factors further reduce the actual amount of land available for development to 15,000 mu. There are 13,337 people slated for resettlement. But it is likely that some of them will have to be resettled a second or third time when their original sites become uninhabitable or untillable. Some predict that by 1998 second and third resettlements will raise the total number of relocatees to 23,000. These facts indicate that because the land-to-person ratio is extremely tight, the environmental capacity of the resettlement site will be severely taxed by the resettlers. As resettlement begins, more difficulties will likely become evident. In fact, there have already been problems in planning the resettlement of people now involved in nonagricultural employment. All this proves what Vice Premier Tian Jiyun said during his inspection tour of the Three Gorges' reservoir area in March of this year: "[We] cannot say categorically that the geographical capacity of the reservoir area which

is slated to accept hundreds of thousands of relocatees is not without its problems.”

Limited Employment Opportunities in Heavy Industry and Construction

Because there simply is not enough agricultural land, Badong County will have to create a large number of jobs in the heavy industry and construction sectors. But this will be a difficult task in a county where per capita income is less than ¥300 and industrial production is less than ¥1,000 per capita.

The decision to launch the Three Gorges project was delayed for decades, and neither the central nor local governments invested much in the region during that time. As a result, Badong does not have a strong industrial base. As of 1991, the county had only ¥100 million in fixed industrial assets (including private, collective, and state assets), and agricultural output outstripped industrial output four to one (the national ratio is the inverse, one to four). In terms of employment, 86.4 percent of Badong's workers have jobs in agriculture, and only 3.7 percent in industry. Nationally, agriculture employs 60 percent of Chinese workers, and industry 22 percent.

Most of Badong's industrial products are used to meet local demand, a very small market. As a result, the enterprises are small in scale, with each employing an average of 110 workers. Capital equipment is old, and production technologies are outdated. With such a limited industrial base, the county is unlikely to develop industry quickly enough and on a sufficient scale to provide jobs for the large number of relocatees.

The county is also lacking the capital to finance further industrial development. The dam is an excellent source of funds, but it is not enough. The resettlement budget includes funds for industrial development, but the primary recipients of the funds will be individuals. Relocatees should not expect large sums from the resettlement budget to be spent on industrial or other projects.* Funds from outside the county are also likely to be very

*By 1991, the government began to downplay the promise of Developmental Resettlement and of moving relocatees out of agriculture and into industrial employment. Authorities admitted that the industrial enterprises that were created at the experimental stage did not provide the promised jobs to poorly educated rural resettlers. See Jun Jing, "Rural Resettlement," p. 35. Chinese leaders make it clear that it is up to the "reservoir region itself [to] explore ways to attract more investments. . . ." Statement by Qiao Shi, Xinhua, June 19, 1996.

limited. According to local officials, there is already a ¥500 million shortfall in government funding for the 46 industrial projects which have been authorized. Despite Vice Premier Tian Jiyun's proposal to make projects in the reservoir area a priority for investment, investors demand high returns on their commitments, and returns in Badong County can be expected to be quite low. Take construction, for example. Because the land is so steep, it is much more expensive to install foundations in Badong County than in other parts of the country. Increased construction costs alone can reduce or altogether eliminate anticipated profits.

The expansion of industry requires that workers be adequately trained and educated so that they can make a smooth transition from agricultural to industrial employment. But few of Badong's 480,000 residents have such an education. According to the fourth census, only 1,526 of Badong's residents have more than two years of college (well below the national average); 5.7 percent have a high school education; and 51 percent have an elementary school education. Thirty percent of the rural population is illiterate or semiliterate.

The geography of the county will also limit future industrial development. Located on both banks of the Yangtze River, the county has virtually no plains or flat lands. The rolling hills in the central part of the county have hindered the expansion of water and transportation systems crucial for industrial development. Moreover, the area is surrounded by mountains and is relatively enclosed, causing poor air circulation. As a result, air pollution is likely to become a problem, while the slower flow of the dammed Yangtze will also cause pollutants to concentrate in the reservoir rather than being flushed out to sea.

Badong's population is young, and because there are a significant number of people entering the job market every year, the labor force is expected to grow for the next ten to twenty years. Again, according to the fourth census, unemployment is increasing by 6.6 percent annually. As time passes, it will be increasingly difficult to find jobs for the thousands of resettlers.

Also significant is the fact that village relocatees who find jobs in factories are treated poorly as compared to regular workers, but cannot change their household registration from rural to urban. This provides an incentive for relocatees to abandon jobs created for them at the new sites and could cause serious problems for resettlement planning overall. For example, the expansion of Badong's cement plant created 100 jobs for village relocatees at a cost of ¥10,000 per worker. But of the original 100

workers, only a little over 50 still work at the plant. The others have left because as laborers they were underpaid, making far less than private vendors or self-employed truck drivers, for example. Laborers are not eligible for pay increases, bonuses, or subsidies. Their jobs are usually temporary, their work conditions poor, and their duties more physically demanding than for regular jobs. And because the relocatees do not enjoy urban household registry [which carries with it a grain ration], they must buy high-priced grain on the market. Township workers would never risk losing their urban household registrations by leaving their jobs, even if they were just laborers. But relocatees have no such reservations because they cannot change their registration.

These are potentially serious problems with resettlement planning for nonagricultural employment. If the economy is performing well and jobs are relatively easy to find, relocatees are unlikely to cause many problems for the government. But if the economy is performing poorly, and enterprises suffer a drop in production, relocatees will probably turn to the government for help; a prospect that concerns local officials.

Limited Opportunities in Service Industries

Badong County also plans to provide tourist and service industry jobs for 2,000 to 3,000 rural relocatees over the next six years. But it is unclear whether this will be possible.

There is only one internationally known tourist destination in all of Badong, and that is the Shennong stream (*Shennongxi*). Among the stream's many attractions are waterfalls where crystal clear water drops from sharp cliffs as if from the heavens, and centuries-old caves and narrow plank roads built along the sheer cliffs of the three gorges through which the stream runs. Tourists can sail down the calm sections of the stream on boats built by the Tujia people. However, two of the three gorges along the stream will be inundated by the dam, effectively destroying much of the tourist trade in the area.

Even if the scenic value of the Shennong stream were not destroyed by the dam, and the stream was heavily promoted as a tourist destination, the local infrastructure could not handle the influx of tourists necessary to support a host of new jobs. Traveling down the stream to the Yangtze usually takes less than two hours (and is often quite dangerous), but because of bad roads, it takes another two hours by bus to travel the short

distance from the county seat to the stream itself. Only 120 tourists a day can be brought to the stream.

People working in tourism require even more training and education than those in the industrial sector. The Badong Tourism Bureau currently employs only 62 people, most of whom have a high school education and are women. It would be very difficult to place rural laborers in such positions. The only opportunities for male laborers would likely be operating the small Tujia-built boats that ply the Shennong stream. But the stream can only accommodate about 30 boats, employing about 100 people. This is far fewer than the 2,000 to 3,000 jobs hoped for. Finally, work on the boats is seasonal and would not provide full-time employment.

Issues of Land Ownership, Management, and Redistribution

Land is scarce and unevenly distributed in Badong County. In some of the areas where relocatees currently live, people have an average of 1.5 mu of land per capita, and after the development of new lands, they may have more, perhaps as much as 2.6 mu per capita (in Leijiaping Village, for instance). In other areas, however, relocatees currently have only about one-half mu of land per capita and will be unable to move back from the river and resettle in nearby areas (in Dongrangkou Village, for example). To resettle these people, the county government will have to acquire land and relocate them to a number of different villages.

To complicate matters, there is a growing sense of land "ownership" among farmers in the reservoir area. Some of those who own land that the county government wishes to acquire for resettlement are asking much higher prices than the government usually offers. Moreover, the farmers have insisted that the land only be leased to relocatees so that they retain ownership. Other land owners have insisted that they be given the exclusive right to develop their land, in effect barring redistribution to the relocatees. If the government and the land-owning farmers are not able to come to an agreement soon, the ability of resettlers to make a living after inundation will be seriously threatened.

For those resettlers who can move back from the river and resettle in nearby areas, the issue of land ownership is less important than how land is distributed and managed. In Badong County, three different approaches to the distribution and management of newly developed lands have been adopted. In the first, new land is distributed to the local village groups

according to population and number of households, and then, following inundation, all of the land held by the village or village group [the old and new land] is divided amongst individual households. In the second approach, the entire village collectively manages the newly developed land and then redistributes it following inundation. Under the third approach, newly developed land is distributed to relocatees before inundation according to the official criteria for reimbursement. If there is any left over newly developed land, it is evenly distributed among the village groups.

Each of these approaches has its merits and shortcomings. The advantage of the first is that prior to inundation everyone in the respective village groups can enjoy the fruits of the newly developed land and that following inundation everyone shares the benefits and profits from both the old and new lands. Possible drawbacks occur mostly before inundation and include lax management of the newly developed lands by the village group leader and the likelihood that individual farmers will be unwilling to invest in and care for lands that they might have to give up after inundation. This would be devastating for orange groves which take a long time to mature and need constant attention.

The advantage of the second approach is that the newly developed lands are in the hands of the village as a whole, which encourages collective economic action or investment. In the wake of the Agricultural Responsibility System [instituted in 1978], however, there is little collective capital in the village governments, meaning that substantial village-based investments are unlikely. Moreover, in terms of land management, there is still a public rice bowl mentality—everybody counts on someone else to do the job—which would seriously reduce the likelihood of generating a profit under the collective management system.

The advantage of the third approach is that relocatee ownership rights over land are clearly designated. This option also provides incentives for the relocatees to invest in the newly developed land and to cultivate newly planted orange groves. Among the three approaches, this last one is most beneficial over the long term for land development, and it was adopted by a trial project in Leijiaping Village. However, it too has certain drawbacks: Since relocatees will, in the years prior to inundation, have claims to two plots of land (the land they received under the current responsibility system and the newly developed land), they will enjoy a substantial increase in their income as compared with nonrelocatees. Then, following inundation, the relocatees will suffer a dramatic drop in their incomes as a

result of the inundation of their original plots of land. At either stage, internal strife may emerge within the communities. This was the case in the B trial project in Leijiaping, where conflicts led to the destruction of water storage and irrigation facilities and newly planted orange groves by displaced farmers.

Developmental Resettlement should both guarantee that the living standards of the relocatees will not suffer after inundation, and facilitate a smooth transfer of land ownership. The experience with trial projects in Badong County, however, indicates that it is very difficult to achieve these goals concurrently.

People's Attitudes in the Proposed Reservoir Area of Badong

As part of our fieldwork, we interviewed a number of county leaders, the majority of whom saw resettlement in a positive light. They claimed that the Three Gorges project will stimulate the economy of the reservoir area, provide economic opportunities for its residents, and help local communities to establish ties with the outside world. To this end, Badong County has come up with slogans like "Take advantage of the Three Gorges project to create a prosperous Badong economy." The officials believe that years of indecision about the Three Gorges held back government investment in the county, and they therefore hope that the dam will bring with it an enormous influx of investment.

In our view, there is some truth to these views. To a certain extent, the project will provide a boost to the economy of the Three Gorges area. However, for external investment to have a real impact on the county's development, considerable effort is required. First, we must disabuse ourselves of the notion that external investment ensures internal development and that the government will take care of everything. Instead, development plans must be linked to local economic conditions. Second, government investments must be used to develop the local resource base and support the local economy and ensure reinvestment in it, rather than being siphoned off through corruption and embezzlement. Third, we must realize that the project will not bring wealth overnight. In fact, since government funding is limited, there will be a shortage of capital funds in the area for some time. Leaders in the reservoir area must take full advantage of special economic policies

to make up for the lack of funds.* Fourth, government investments must be linked to the development of local human resources, since human resources are key to the creation of a productive economy and higher incomes. Investments in education and personnel training may not solve any immediate problems, but they are the key to future progress.

The opinions of local relocatees are, by contrast, quite complex. Experience from the trial projects indicates that people whose villages can be resettled nearby generally favor resettlement. These people still feel, however, that without the promised benefits of Developmental Resettlement, their standards of living will drop precipitously after the dam is built. People whose villages cannot be resettled nearby feel even more strongly that their standards of living will suffer as a result of moving. They worry that they will lose contact with relatives and friends and that they will have no one to turn to in times of trouble after the move. Most of those working in the industrial sector will agree to move, but they worry that their businesses will suffer and their incomes will drop. Finally, farmers living in the mountain regions have always led a hard life, and many seem willing to give up their rural lives for jobs in the city,** but fishermen and farmers living on the banks of the Yangtze enjoy a good life and do not want to work in factories or move to other towns.

Conclusion

The policies of "Developmental Resettlement," "moving back from the river and resettling in nearby areas," and "giving priority to macro-agricultural development" only provide the possibility of solving the various problems associated with resettlement. The policies' ultimate success depends not on the people's will, but on the recognition and proper management of the ways in which environmental, social, economic, societal, and human factors affect the policy goals. The discussions in this article have been limited to the economic and social dimensions of the policies and suggest that sound investments in and the maintenance of the reservoir's environmental capacity are key to resettlement success.

*These include open-city, custom-free status for imported technical equipment given to the ports of Chongqing, Fuling, Wanxian, and Yichang, and the creation of the Three Gorges Economic Development Zone.

**This seems to be the case of the Tujia minority, who believe the dam will improve their currently miserable economic conditions.

Though we did not focus on them nearly as much, environmental and ecological concerns are equally important. To date, Developmental Resettlement has only been attempted in small trial projects in areas that are well suited for development. But inundation has not yet occurred. As the project progresses, many new problems are likely to surface, and both present concerns and unknown future ones will require serious study.*

*Central government officials agree that "despite certain achievements, much is left to be done in resettling residents affected by the project." Statement by Qiao Shi, Xinhua, June 19, 1996.