

Running Away is the Best? Ecological Resettlement of Ethnic Minorities in Guizhou, China

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This paper investigates ecological resettlement of ethnic minorities in China, using Guizhou as a case study. Guizhou has the most multicultural population in China, where ethnic minorities account for 35.7% of the total population in 2010. Its regional development has been characterized by interactions of ethnic minorities with their vulnerable, karst environment. The natural environment has been increasingly degraded, and the livelihood of rural people has substantially deteriorated. A large-scale ecological resettlement has been planned and implemented in Guizhou with intentions of both poverty alleviation and environmental conservation. This paper contextualizes the displacement, which involves a population of over two million ethnically diverse people, over half of which are ethnic minorities. The discussion includes environmental change and economic and cultural contexts in which the displacement occurs.

Keywords: *environmental degradation; ethnic minorities; environmental resettlement; China*

China's remarkable economic growth has been accompanied with profound social and environmental changes. These changes include increase in regional disparity and large-scale rural to urban migration. The most common migratory pattern was one in which men left their families in the rural villages in central and western regions to work in factories and construction sites in cities in coastal areas. This migration continues to grow phenomenally, and in the meantime, patterns of migration have become increasingly complex and diverse. Environmental migration has been prominent, even though the extent of the migration being driven by environmental change and the 'voluntary' nature of the movement/relocation are questionable (see Oliver-Smith, 2012; Xue et al., 2013). It has been "complex and unpredictable" (Hugo, 1996; Kabra, 2013), involving broad social, economic, political and institutional factors.

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In China, environmental migration has unprecedentedly taken place in the country's west, where the areas are ecologically important and/or fragile (Liu and Diamond, 2005). These include ethnic minority autonomous regions (EMARs) of Ningxia, Tibet, Inner Mongolia and Xinjiang and other ethnic minorities concentrated areas like Sichuan, Guizhou, Gansu, Qinghai and Yunnan provinces. The regions provide ecological safeguards for the upstream of major river systems, including the Yellow and Yangtze rivers. The environment in these regions has faced the "most serious ecological crisis" (Shen, 2004, p.637), shrinking arable land, desertification, soil erosion and events associated with climate change. The social and economic development of ethnic minorities has particularly suffered. For example, 80% of the poverty-stricken population is ethnic minorities in Guizhou. In Ningxia, 60% of the poorer population is Muslim (Hui), and more than 90% of the poorest people in Yunnan and Tibet also consist of ethnic minorities (Yeoh, 2008).

The development of the western China region has become a policy concern of the state. The policies introduced are not just for improving wellbeing of people but also for stopping environmental degradation (State Government Council (SGC), 2001, 2002, 2012a). The governments have steadily engaged in a 'running away' approach that removes people and turns their farmlands into forests or grasslands in the interest of conservation (Tashi and Foggin, 2012). Large environmental displacements have been undertaken (Merkle, 2003; Xue et al., 2013). It is expected that over 100 million people will be moved in China from 2014 to 2000 (Hu, 2014). The majority of these relocations are taking place in EMARs and regions of concentrated ethnic minorities. For example, it was reported that 0.35 million people were relocating away from environmentally fragile areas in Ningxia between 2011 and 2016 (Xin, 2012). The resettlement of some of the Tibetan population has occurred in western Sichuan (Tan et al., 2013). Guizhou government has instigated the removal of 2.04 million people out of inhabited environments between 2012 and 2020. It has been reported to be the single largest relocation in recent Chinese history (Phillips, 2012), surpassing the relocation of 1.27 million people from the Three Gorges Dam. Over half of the people who are subjected to displacement are ethnic minorities, uprooted from their places of origin.

While impacts of environmental change are different from place to place, there is a necessary and urgent need to expand resettlement research in order to better document different displacements and characterize the context in which these occur (de Sherbinin et al., 2011). This paper is devoted to contextualizing the displacement in Guizhou, with a focus on ethnic minorities. It deals with the interactions of the people with their environment and takes into account environmental change and economic and especially cultural contexts in which the displacement occurs. This includes specific questions such as why environmental displacement takes place in Guizhou, who these displaced people are, and where they are resettled, including the development of new settlements. This paper is arranged as follows: firstly, it discusses the people and their cultures in Guizhou, including population growth,

ethnic composition and distribution; the environment and social development of ethnic minorities will be examined, followed by a detailed discussion on migration and resettlement plans and developments in the region.

POPULATION AND ETHNIC MINORITIES IN GUIZHOU

Environmental changes and especially the slow-onset ones such as desertification, soil erosion and events associated with climate change are “more likely to affect politically and economically marginalized groups” (Tacoli, 2009, p.518). Underling this is the vicious relationship between poverty and the environmental change (Gray and Moseley, 2005). “Poor people are forced to overuse environmental resources to survive from day to day, and their impoverishment of their environment further impoverishes them, making their survival ever more uncertain and difficult” (WCED, 1987, p.27). Environmental resettlement is one of the emerging responses, with a hope displacing the poor away from the degraded environment so as to break down the vicious cycles. However, environmental displacement is more than just spatial transfers of population. It is a complex process entwining with broad social, economic, political and institutional factors (Warner, et al. 2010; Black, 2011; Kabra, 2013) and has become more complicated and contentious when the relocation involves native or indigenous people. It can produce negative consequences for both the environment and the people even though its theoretical intentions were to lift indigenous people out of ‘poverty’ (Peluso, 1993).

Guizhou has been a frontier region remote from major centers of power and economic development in China. The region is located in the southwest of China and is a predominately mountainous region. It has been known as an area in which “the sun never stays more than three days in the sky; the land never stays flat more than three feet; the man never has more than three pennies” (*tian wu san ri qing; di wu san chi ping; ren wu san fen yin*). China’s rapid economic development has generally improved the overall situation over the past three decades; however, Guizhou’s development has been lagged behind the nation. The province is regarded even today “as a region of abject poverty, uncivilized minority tribes, and general dreariness” (Oakes, 1998, p.8).

Guizhou had a population of 34.7 million inhabitants in 2010, an increase from 15 million in 1953 (Guizhou Bureau of Statistics (GZBS), 2012). The total amount of permanent inhabitants in 2010 was different to that of hukou population (41.9 million), which included those whose household registered in Guizhou but lived outside of it for at least six months at the census time. Among the total population, over one third (35.7%) of the population are ethnic minorities, making it one of the most multi-ethnic populations in China. The multiethnic composition has affected the growth and change in the province’s population.

Guizhou's population increased by 14% from 1953 to 1964, a growth rate lower than the nation's average of 15.4% during that period. The population grew exceptionally fast, with an increase of 66.6% compared to 45.2% of national growth during the period between 1965 and 1982, and increased more than 0.6 million annually. The growth was attributed to the higher birth rates and large flow of immigration of Han Chinese. The development of the 'third front construction' (Wang and Wu, 2010) led to millions of Han Chinese people being relocated away from coastal cities to Zunyi, Anshun, Duyun and Kaili in Guizhou. While the national growth continued by 11.7% and 5.8%, the population growth in Guizhou went down by 8.8% and 1.4% in the past two decades, respectively. The decline might be partly attributable to the out-migration development.

Cultural diversity is a distinctive characteristic of Guizhou's population change. Administratively, the province was organized into nine prefectures which were further divided by 86 counties in 2014. These include three minority autonomous prefectures (MAPs) and twelve minority autonomous counties (MACs) (see Figure 1). Minority autonomous regions cover over half of the territory.

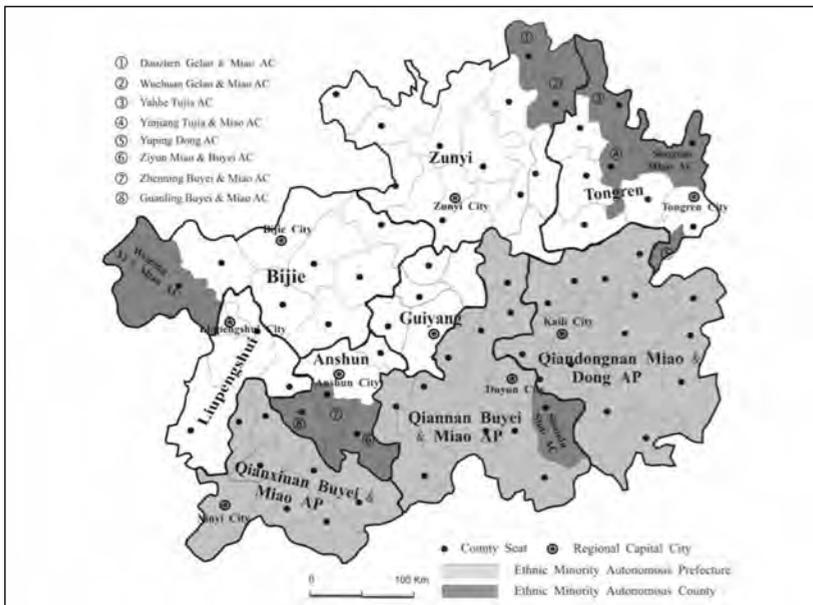


Figure 1: Ethnic Minority Autonomous Regions in Guizhou, 2014

Data source: GZBS, 2012

In 2010, Guizhou had 54 of the 56 officially recognized ethnic groups, including 18 native ethnic minority groups (Fan and Wong, 2002). The population of non-

Han ethnic minorities increased from 3.9 million in 1953 to 12.6 million in 2010 (See Figure 2). Ethnic minorities made up 26.2% of the province's total population in 1953. However, its proportion decreased to 23.4% in 1964 and grew rapidly from 1964 to 1982. Nevertheless, the growth has decreased since 1982. The population of ethnic minorities experienced a negative growth, and was reduced by almost one million in the decade between 2000 and 2010, which reached 13.3 million in 2010. Interestingly, the one-child policy began to be implemented in Guizhou in 1979. Ethnic minorities have been treated differently in that ethnic minorities have not been subjected to a strict birth control of policy and have tended to have more children. Yet the reasons for the decline in the ethnic minority population are unknown.

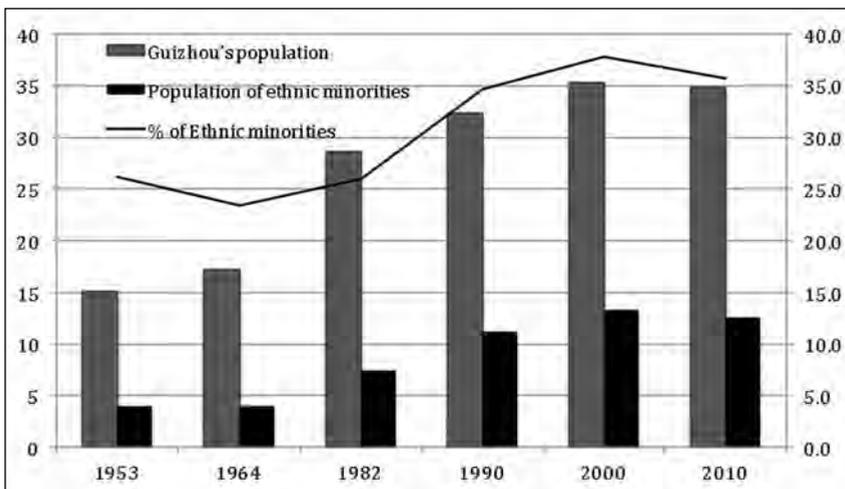


Figure 2: Population growth in Guizhou, 1953 -2010
 Data source: GZBS, 2012

The ethnic population in Guizhou accounted for 11% of China's total ethnic minorities in 2010. Guizhou's ethnic population ranked as the fourth highest in China, succeeded only by Yunnan (30.6 million), Guangxi (28.9 million) and Inner Mongolia (19.6). Ethnic minorities comprised of 35.7% of the province's total population, which was higher than in Inner Mongolia (20.5%), Yunnan (33.4%) and Ningxia (35.2%), whilst lower than Guangxi (37.2%), Qinghai (47%), Xinjiang (59.5%) and Tibet (91.8%). Among the ethnic minorities in Guizhou, the population of six groups (Miao, Buyi, Tujia, Dong, Yi and Gelao and Shui) made up more than 340,000 people each. Many of these ethnic minorities were native to Guizhou and their numbers were significant in the nation's tally of these ethnic groups, as well as in Guizhou's total population. Nearly 90% of Gelao, 87.5% of Buyi, 84.7% of

Shui, 49.7% of Dong and 42.1% of Miao in China were located in Guizhou. Miao made up 11.4% of Guizhou's total population while Buyi, Dong and Tujia also made a large proportion (15.4% altogether). It was worth noting that over half a million (612,000) 'unidentified' ethnic minorities in China were found in Guizhou.

Ethnic minorities have been dispersed throughout the province; most of them are concentrated in the MAPs and MACs. At the county level, there were 19 counties where the shares of ethnic minorities were over 80% of the total population. Inhabitants of ethnic minorities in 25 counties are between 50% and 79%. The distribution of each ethnic minority population is complex also. They are relatively concentrated but largely mixed with each other and in particular mixed with Han Chinese. For example, Buyi is widely spaced out but relatively concentrated in southern, southwestern and centralized areas of the province. Over half of the Shui population in the province is located in Shandu Shui MAC. Dong's population is distributed in the southeastern part of Qiandongnan MAP, whilst Miao's are widely spread but also concentrated in the northwest of Qiandongnan MAP (see Figure 1).

POVERTY AND THE ENVIRONMENT IN GUIZHOU

The physical environment of Guizhou is characterized by mountainous terrain with an average elevation of approximately 1,100 meters. It is a part of the Yunnan-Guizhou plateau in the upstream of the Yangtze River and the Pearl River. Therefore, the environment of Guizhou critically safeguards the water quality of the rivers, supporting socio-economic developments around them. The majority of the Guizhou people are scattered in rural villages among mountain slopes – these mountain slopes make up 92.5% of the province's land area. Over two thirds of the population lives on slopes steeper than 19 degrees (Li and Zhang, 2007). The development of ethnic minorities in both material and cultural respects has relied on a strong attachment to the region's natural environment. The distribution of rural villages is very dispersed and their patterns of layout are culturally differentiated (Wu, 1992). The population size of the villages ranges from a few dozen to a few hundred, and their fields are within daily walking distances. These villages are a virtually self-sufficient unit, producing food and other necessities from the land. Historically, ethnic minorities were pushed by the Han Chinese to live in these high mountains and remote areas. Many small ethnic villages remain isolated and essentially inaccessible.

Another salient feature of this environment is that the area is majorly covered by limestone, which accounts for 73% of the total area, or about 0.17 million km². The environment is infertile and fragile and runs at risk of degradation. Rainfall can quickly drain away and leak into underwater systems. Water cannot be effectively used by vegetation in support of its growth. Although some cultural mechanisms of ethnic minorities assist in adapting forms of sustainability to the environment at the village level (Yuan et al., 2012), the environment has experienced extensive soil

erosion and deforestation due to the pressures of population growth as well as the unsound exploitation of natural resources, in particular during Mao's era.

Mao's approach to regional development disregarded nature, which was "explicitly seen as an enemy" (Murphy, 1967, p.319). For example, roughly ten percent of China's forest cover fell in the course of just a few months during the Great Leap Forward (Shapiro, 2001). Guizhou was not an exception; its vegetation coverage rate of the province was 45% in the 1950s, which had been reduced to 12.6% in the 1980s (Li and Zhang, 2007). The area of soil erosion increased inversely to vegetation coverage from 14.2% of total area in the 1950s to 43.5% in the 1990s. The intensity of deforestation and soil erosion caused the bedrock to be exposed (see Figure 3), which has led to a process of karst rocky desertification in Guizhou. Areas of karst rocky desertification expanded 933 km² annually from 1975 to 1998 (Wang et al., 2004), which shows no sign of improvement (Bai et al., 2013).

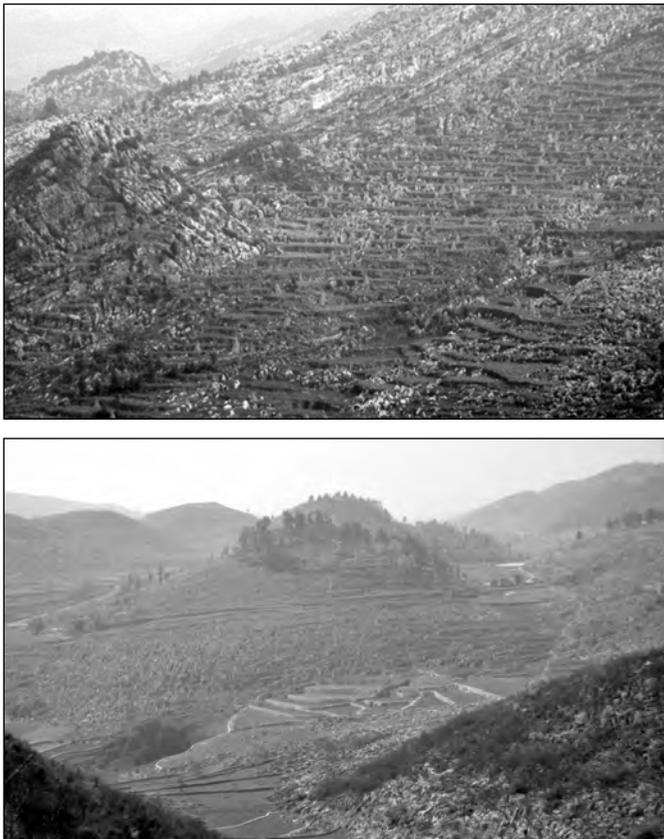


Figure 3: (up) Karst landscape and (bottom) land use in Puding, Guizhou

Source: Karst Scientific Data Centre, Guizhou Bureau of Technologies (available at www.karstdata.cn)

Until recently, the livelihood of rural people in Guizhou has been heavily resource-dependent, with two thirds of rural household incomes coming from farming and animal husbandry. The farming practices are family-based and small in scale due to the nature of the physical environment and land policy. Land rights remain with villages collectively but the use of land has been divided into small lots and assigned to individual households. The main crops in these areas include maize, rice, wheat, cotton, sorghum, barley, millet, buckwheat, rapeseed, sweet potatoes, potatoes, and numerous other vegetables. The product from the land allocated has been barely sufficient for meeting household needs. In addition, the deterioration of the karst environment has induced a number of natural disasters. Over 13,000 localities have been identified across the province that are vulnerable to natural geological hazards such as mass movement landslides, falling rocks, avalanches, etc. (Jiang, 2005). These directly affect 380,000 people. This has been accelerated by climate change, particularly the increasing intensity and frequency of extreme weather conditions. Data shows that between 1951-2006 temperatures in Guizhou increased by 0.5 degree Celsius and rainfall decreased by 48 millimeters. The economic cost of climate change related disasters increased from 88 million yuan annually between 1950 and 1989 to 2.23 billion yuan per year between 1990 and 2007 (Guizhou Government (GZG), 2008).

This harsh physical environment has made Guizhou the poorest of poor provinces in China. In the 1990s the UN based its definition of the poverty line, and all rural residents in Guizhou, which made up 31.8 million of the entire province, are falling below the line. The annual net income of ten million people there is less than \$50 per capita (Liu et al., 2000). After two decades of rapid economic growth, living standards in Guizhou have gradually improved. In 2011, the per capita income in rural Guizhou was 4,145 yuan, which remained the lowest in all of China. It made up 25.1% and 11.4% that of Guizhou cities (15,644 yuan) and Shanghai (36,230 yuan), respectively in the same year. In 2011, based on the government's definition of the poverty line (2,300 yuan/pa), its poverty population consisted of 11.5 million people, or one third of the province's population, which was far from the national average of 12.3% (GZBS, 2012). Annual incomes of one third of rural households were lower than the official poverty line in 2002. Over half of the population in Guizhou lives in poverty counties (*ping kun xian*) that have been designated by the state. These counties cover two thirds of the province's territory (116,000 km²). For example, in Puding County, nearly 30% of the households relied on selling blood (cash compensation for blood donations) as their "major livelihood strategy" (Xing, 2009, p.344). Figure 4 shows spatial distributions of the poor, desertification, and ethnic minorities in Guizhou at a regional level. The higher rates of the impoverished population correspond to both high levels of desertification and concentration of ethnic minorities in Liupengshui and Anshun. In Qiandongnan, Tongren,

Qianxinan and Bijie, both the poverty rates and levels of concentrated ethnic minorities are higher.

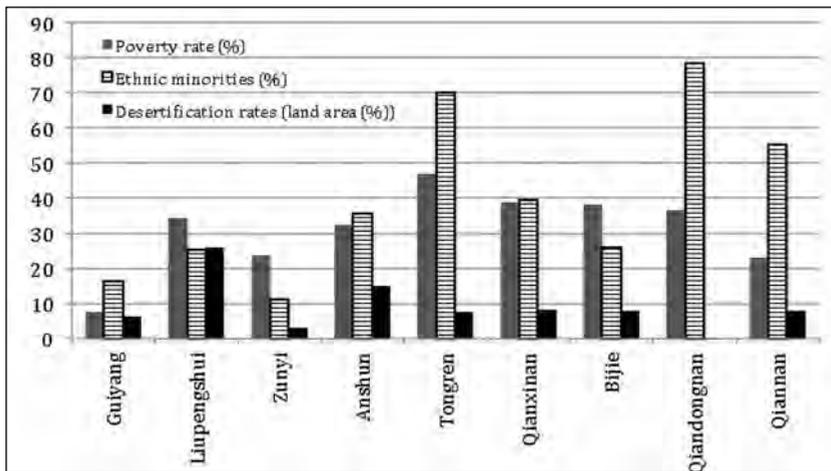


Figure 4: Ethnic minorities, poverty and environmental change in Guizhou
 Data source: GZBS (2012) and Li and Zhang (2007)

MIGRATION AND ENVIRONMENTAL RESETTLEMENT

Migration remittance has become important income source for improving the overall livelihood of rural people in Guizhou (Wang and Wu, 2012; Wu, 2014). The pull factors of urban economic development, particularly in the manufacturing and servicing sectors are essential for migration. Guizhou’s economy has been dominated by the agricultural sector, which relies on labor-intensive methods and was able to support limited urbanization. In 1953, 7.5% of the total population lived in a city and this increased to 11.5% in 1982. Government data showed it was 33.8% in 2010. This increase is largely due to the redefinition of urban population to include people who might live in the cities up to six months and who might live in rural villages within urban jurisdictions, but hold no urban residency. These people remained as a largely rural population in nature that owned land and spent part of their time in farming. The actual level of Guizhou’s urbanization, in terms of household registration, is 16.1% in 2010. Compared to Han Chinese, the levels of urban concentration of ethnic minorities are much lower. In 2010, they were at 8.2%, 7.7%, and 8.2% for Miao, Dong and Buyi, respectively. They were even lower for some other ethnic groups; for instance, 3.8% for Shui and 2.7% for Maonan. As a result, the proportion of ethnic minorities in the populations of the two largest cities of Guiyang and Zunyi were at 16.5% and 4.9% only (NSBC, 2012).

With environmental change, strategies of planned migration were pursued, but quite slowly. There were 0.42 million people relocated during the period between 2001 and 2011. This figure has changed considerably in the past few years, due to particular policies and political developments. Firstly, the central government identified 100 counties that typically suffered from karst rocky desertification; 55 of which were in Guizhou. The government then released an agenda of “karst rocky desertification conservation” in 2008, in which a ten-year target for ecological restoration and conservation was set. Relevant provincial governments were required to sign an agreement with the state council, which has been a criterion for considering performance of the province’s governments (State Forestry Administration of China, 2009). Combatting karst rocky desertification has since become a national priority for environmental conservation.

Secondly, Hujing Tao, the former president of China who worked as the province’s party secretary in Guizhou in the mid-1980s promoted several of his colleagues from Guizhou to the central government. In 2012, the party secretary of the province, Lu Zanshu, was promoted to be a member of politburo, a key decision maker in China. In the same year, the state council issued a special policy to promote social and economic developments in the province (SGC, 2012b). Consequently, the Guizhou government launched two interrelated and ambitious programs: one program to speed up the urbanization of the province, which proposed to increase its urban population from 127.2 million in 2012 to 170.2 million by 2017 (GZG, 2013a). This program would need to increase the capacity of existing cities and develop a number of small towns and cities to accommodate another 43 million people in five years. The second program intended to move 2.04 million people down from mountain villages and away from environmentally fragile areas between 2012 and 2020. These equate to over 8.9% of the rural population in the province as a whole (See Table 1), dramatically changing the geographical population of the province, which is currently scattered throughout its rural regions. It was reported that 250,000 people were successfully relocated from 2012 to 2014 (GZG, 2014).

The displaced people, including those who would need to be moved from where they are resettled, have not been homogenous. Over half of the displaced persons are ethnic minorities (1.04 million). An important consideration was given to “effectively solve the poverty of ethnic minority population and deal with the longer term issues of development” and “facilitate and promote ethnic unification and advancement” (Guizhou Development and Reform Committee (GDRC), 2013, p.4). Of the total displaced population, 26.3%, 21.1% and 17.7% are based in Qiandongnan, Tongren and Qiannan. At the prefecture level, a large proportion of the rural population in Qiannan (13.2%), Tongren (13.1%), Qiandongnan (12.2%) and Anshun (11.2%) will be resettled. At the county level, over ten percent of rural residents in 39 counties are to be displaced. In some counties, like Wuchuan County in Zunyi and Danzai, Shansui, Jianhe, Congjiang, Rongjiang, Liping and Taijiang counties in Qiandongnan, over 96% of displaced persons were ethnic minorities.

Table 1: Guizhou's population and planned population displacement by prefecture

Regions	Total pop. (,000)	Ethnic pop. (%)	Displace persons (,000)	% of rural pop. in the area	Ethnic populations	
					Persons (,000)	%
Guizhou	41,600	35.7	2,043	8.9	1,035	50.6
Guiyang	3,735	16.5	64	4.6	8	12.3
Liupenshui	3,148	25.4	130	6.4	42	32.7
Zunyi	7,659	11.1	267	6.7	48	18.1
Anshun	2,769	35.6	181	11.2	80	44.5
Tongren	4,189	70.0	300	13.1	218	72.7
Qianxinan	3,324	39.4	169	8.4	89	53.0
Bijie	8,337	25.9	322	6.7	93	28.8
Qiandongnan	4,458	78.3	309	12.0	272	88.2
Qiannan	3,980	55.2	303	13.2	183	60.5

Data source: Guizhou Development and Reform Committee (GDRC), 2013

According to the government, relocated people are chosen for this move based on five criteria (“*wu wei zhu*”). These are: 1) impoverished people who live in remote mountain areas; 2) people who live in a karst environment with severe degrees of rocky desertification; 3) people who live in areas with other environmental problems; 4) poor people who live in areas with an ethnic concentration; and 5) people who live in other areas of impoverished concentration (GDRC, 2013). Specifically, 47% of the total displaced people are from areas of environmental vulnerability and geological hazards. Other geographical factors of remote locations and accessibility problems contributed to 13% of the total displacement while 10% would be relocated from areas of environmental importance. There are no available official data on how voluntary the displaced people in the region were but one large-scale survey that covered 31 provinces showed that only 11% of farmers were willing to give up their land and obtain an urban *hukou* in 2010 (Zhang, 2011). The responses of the villagers in our fieldworks in Qiandongnan were mixed. Some were reluctant to move and emphasized their emotional ties to the land, but they had to move because ultimately the majority of the villagers decided to move. Some were excited about the change because rural life had become an increasing struggle while others believed relocation would leave villagers even worse off, thrusting them into unfamiliar environments.

There are 1,041 settlements proposed for the displaced people across the province. The establishment of industrial park has been a noticeable pattern. Over one thousand industrial parks have been designated by various levels of government with a hope to accommodate 1.48 million displaced people, or about 72.5% of all the

displaced. Administratively, the displaced people have been largely relocated within the region of their counties and cities. The new settlements have been developed around the cities or county seats, and larger market towns fit with newly designated industrial parks. Eventually, the displaced persons from rural mountain villages are expected to turn to factory and public workers. The settlements have been designed to facilitate this purpose, creating ‘ideal patterns of settlement’ and ‘ideal people for social development’. They are radically different from their traditional villages that were produced by and for the cultures of individual ethnic groups (Wu, 1992).

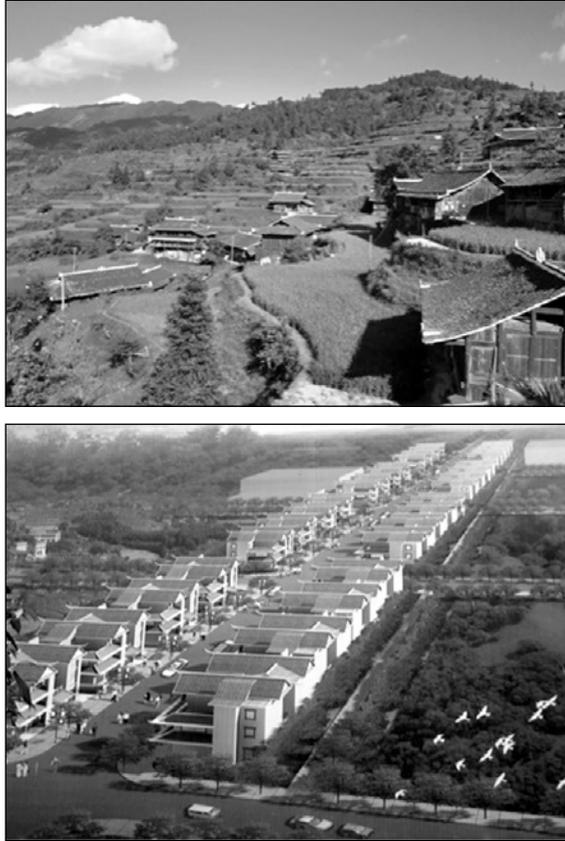


Figure 5: (up) Traditional and (bottom) newly planned settlement of Miao people, Guizhou

Figure 5 shows a traditional Miao village in a mountain and a typical planned settlement for accommodating displaced Miao people in Songtao, a Miao MAC. The settlement is planned based much on modern principles of “a simple, repetitive logic will be easiest to administer and to police” (Scott 1998, p.55), featuring a unified requirement of ‘*wutong*’ (‘5 connections’ that connect electricity, road, tap water and

television and internet) and ‘*qiyou*’ (‘7 haves’ include having a community center, a medical clinic, a shopping center, a kindergarten, a center for cultural activities, a center for technologic activities and a nursing home). To ensure a successful transfer, each displaced household would provide housing subsidies to buy a flat with a shop space, access to training and social security. The hukou system is exempt for those who voluntarily choose to move to these new settlements – they “can enjoy the entitlement of urban residents while continuing to hold their rural land rights” (GZG, 2013b).

With improvements to transport in the past decade, both settlements and industrial parks have largely developed alongside highways or high-speed railways. An example of these proximal settlements can be seen in Luoxiang, an ethnic minority township (*xiang*) in Congjiang. Luoxiang is a small town 45 km from the county seat with a population of 20,000 people, who have dispersed from 177 villages in an area of 127 km². In 2011, a highway from Xiamen in Fujian to Chengdu in Sichuan passed through the township. In the same year, the provincial government designated the large Luoguo Industrial Park, covering 53 km², including 13.5 km² for industrial development in the township. Large settlements surrounding the industrial park have been built to bring villagers into the park. Luoxiang is expected to be an industrial city with population of 340,000 by 2030.

CONCLUSION AND DISCUSSION

In China, migration has undergone a dramatic evolution since its development in the 1980s. Migration of ethnic minorities has rapidly increased in west China, pushed by regional disparity as well as both environmental degradation and poverty. At the provincial level, Guizhou is not an EMAR, though half of territory is designed as EMAR administrations at prefecture and county levels. Ethnic minorities have made up a significant proportion of its population, which account for not only a large share of the province’s population but also a significant population of total ethnic minorities in China. These ethnic minority groups, many of which are native to the region, have been dispersed widely in harsh and increasingly degraded environments. They rely on this environment for survival and for cultural development.

Population growth, coupled with the implementation of some questionable governmental policies, has contributed to the severe degradation and high prevalence of poverty in the province. The physical environment has become increasingly fragile, characterized by large scale and severe karst rock desertification. The livelihood of people has increasingly deteriorated. Consequently, ethnicity, poverty and environmental degradation have now become an intertwined process in the development of the region. As a response, rural populations, including ethnic minorities have gradually migrated or been moved out of their rural villages. This migration development,

as illustrated in this paper, has been accelerated by the top-down approach of this displacement.

For reasons of environmental conservation, poverty reduction or politics, rather ambitious environmental displacement has been planned and implemented in Guizhou. This has involved the displacement of two million rural inhabitants, over half of which are ethnic minorities. New settlements have been built, including the 'creation' of new industrial cities or concentrated settlements with some features of ethnic minorities. This development will dramatically transform the population landscape of rural Guizhou in the next decade. At the moment, population displacement is seen as a relatively easy option in the short term, including the construction of urban dwellings with access to tap water, electricity, paved roads and the actual physical relocation and resettlement of people from other areas. However, this raises a number of questions. For example, the assimilation of village farmers, and especially farmers with different cultures and spoken languages, into urban citizens who can work in new industries with a different value system and lifestyle, is a generational challenge. Additionally, there are few industrial sectors in Guizhou and the majority of which are planning. So, no one knows exactly how many 'urban' employment opportunities will be available for these displaced people, and if available, how long their employment would last. In other respects, enterprises tend to employ well-educated people in a competitive economy. The displaced people are often poorly educated and many of them cannot even speak Chinese. For example, promising urban employment for the displaced from the Three Gorge Dam in Yima City failed to deliver, which resulted in urban poverty and half of the displaced people had to return to farming (Zhang and Zhang, 1999). This may also lead to social exclusion or a simple shift of rural poverty to urban slums, turning rural environmental problems into urban ones, which will be compounded by ethnicity.

Another question is the real effect of the displacement and its associated industrial development on the environment. For example, the settlement development involves the use of large areas of arable land that is scarce in the provinces. The land needed for new industrial parks alone would equate to an area of 180 km² (GDRC, 2013) and the industries attracted are often low in technology and pollution intensive. They have usually been expelled from already developed areas and/or highly cost local natural resources like wood products manufacturing and pulp and paper industries. Industrial pollution would inevitably ensue and as a result, this would shift rural environmental problems to urban ones.

Likewise, this displacement has involved the separate management of people to the environment. This will disconnect with historical development of the region as the separation may challenge the meaning or values of ethnic identity. And while adapting to urban life and obtaining an urban identity, displaced people are often forced to change and alter their traditional values and belief systems. The conventions, culture and identity of ethnic minorities that evolved together with the environment over thousands of years could be drastically altered or even disappear.

There is plenty of research being done on displacements in China as well as all over the world, which suggest that the removal of inhabitants from their native land can have disastrous consequences on these people. It has only been a few years in which this large scale of relocation has been implemented. The consequences of relocating millions of diverse cultural groups and forcing them to adapt to new environments is unforeseeable.

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