



Dam Development in Vietnam: The Evolution of Dam-Induced Resettlement Policy

Nga Dao

PhD Candidate in Geography, York University, Toronto, ON, Canada; ngadao@yorku.ca

ABSTRACT: Prior to 1990, Vietnam did not have a resettlement programme for situations where the state appropriated land for its own interests. Vietnam is now revising its resettlement policies to meet international standards. Drawing on interviews, ethnographic research and government documents, this paper compares the Hoa Binh (constructed between 1979 and 1994) and Son La dams (formally under construction since 2005) to seek answers to the following questions: How have resettlement policies evolved over time? How have resettlement programmes been implemented in Vietnam? The comparison between a dam built in 1970s-80s and one now under construction shows that the improvements in policy may bring limited improvements in dam development planning and practices to Vietnam.

KEYWORDS: Dam development, resettlement, policy implementation, Vietnam

INTRODUCTION

Located in mainland Southeast Asia, with a monsoon climate and divided topography, Vietnam has an agriculture-driven economy. With limited land for cultivation, the intensification of farming is necessary to achieve an improved economy. In addition, urbanisation and industrialisation have also been considered priorities leading to the need for more power. Therefore, the development of water resources for electricity generation, irrigated agriculture and flood control has been given much attention by the government. Dam building in Vietnam has consequently accelerated in the last few decades. According to Dao et al. (2000), from 1959 to 1999 the government constructed about 500 dams, weirs and sluices. From 2000 up to the present day, hundreds of other large, medium and small dams for hydropower production and irrigation have been intensively planned and constructed. As a consequence, by 2009, 1967 reservoirs with water holding capacity above 0.2 Mm³ (million cubic meters) had been built across the country (Dao, 2009). However, besides bringing benefits such as electricity or water for irrigation, dam building incurs costs – not just the cost of building the dam, but also the cost of displacement.

Resettlement has clear implications for cultural and agrarian landscapes, as people usually cannot maintain their traditional livelihood activities. Resettlement does not consist simply of moving people from one place to another; rather, it is a complex process, which requires the contributions and participation of many people and organisations from local to national levels. Involuntary displacements raise major ethical questions, because they reflect an inequitable distribution of development benefits and losses. The most widespread effect of involuntary displacement has been the impoverishment of considerable numbers of people, as their livelihoods have not usually been restored (Cernea and McDowell, 2000). According to Vandergeest et al. (2007), development-induced displacement, in many cases, is defined as "the forcing of communities and individuals out of their homes, and often also their homelands, for the purposes of economic development" (Vandergeest et al., 2007). The term 'in situ displacement' (used particularly in Feldman et al., 2003) refers to the form of displacement experienced by people while staying in place but losing benefits or other entitlements. These scholars assert that

displacement even includes a situation in which people become marginalised from participation in decisions affecting resource access and management. In Vietnam, there are different types of dam-induced displacements including *di tập trung* (moving people far from the river and their homeland to designated sites), *di xen ghép* (mixing with host communities in different districts and communes) and *di vén* (moving to higher ground surrounding the reservoir). In some *di vén* areas, there are also people surrounding the reservoir who have not had to move their houses, although they lost all their farming lands.

As we stand today, no river basin in Vietnam has avoided being altered, managed, engineered or transformed. As planned, by 2025 total hydropower capacity will reach 20,178 MW (Vietnam Institute of Energy, 2006). Hydropower accounts for about 40% of the total electricity production of the country (VUSTA, 2007). The largest dam in the country is Hoa Binh, which reaches a height of 128m, has flooded 20,800 ha of land and displaced 58,000 people (Trang, 1995). Yali Falls dam, the second largest dam in the country, displaced more than 6,000 people in the Central Highlands of Vietnam (CRES, 2001). More recently, in 2005, Vietnam started construction of the Son La dam, which has caused displacement for almost a hundred thousand people in the Northwest uplands of Vietnam. Critics (VUSTA, 2006) argue that even though the dam is still under construction, the impacts are already devastating.

This paper seeks to understand the resettlement planning and policies in Vietnam that are associated with hydropower development projects, their influencing factors and implementation processes. After the Method section, the paper gives background detail on dam construction, and then examines changes in legal and institutional contexts, as well as how government and non-government organisations (NGOs) have engaged with the World Commission on Dams' (WCD) recommendations. In the Case studies section, the paper explores in greater detail what has changed and what has not changed in resettlement practices, by looking at two specific case studies – the Hoa Binh and Son La dams. The Discussion section focuses on change and continuity in resettlement associated with dam development in Vietnam, and why it is difficult to turn changes in policies into changes in practice. The paper concludes with some comments on what might work to push further positive changes.

Data and information for this paper are based on my fieldwork for my doctoral dissertation, combined with my working experience on dam and river issues in Vietnam since the 1990s. Research methods include open-ended and questionnaire-based interviews with affected people, resettlement officers at central, province and district levels, local authorities and officials of agencies such as the Ministry of Agriculture and Rural Development, the Ministry of Natural Resource and Environment, Electricity of Vietnam and others. The fieldwork is complemented by an analysis of government documents on resettlement policies and their implementation on the Hoa Binh and Son La dams, and by past fieldwork in the dam-affected areas.

BACKGROUND

Dams, as Kaika (2006) affirms, express complicated cultural, social, economic and political power relations. Dam development for electricity and water to feed agriculture, industry and urban growth significantly transforms natural habitats, displacing plant, human and animal communities. The WCD's report (2000) shows that dam development has caused the displacement and resettlement of 40-80 million people across the world, destroyed riverine ecological systems and the richness of biodiversity and flooded hundreds of thousands of hectares of forests, farming lands, towns and villages. Kaika (2006) argues that the 'heroic' act of dam building has been as much the product of socially and culturally embedded plans, dreams and geographical imaginations of modernisation as it has been the product of the historical and geographical conditions under which these plans and dreams were pursued. In response to the growing opposition to mega dam projects around the world, in May 1998 the World Commission on Dams, with support from the World Bank (WB) and the International Conservation Union (IUCN), started its work with a mandate to (i) "review the development effectiveness of large dams and assess alternatives for water resources and energy development" and

(ii) "develop internationally acceptable criteria, guidelines and standards, where appropriate, for the planning, design, appraisal, construction, operation, monitoring and decommissioning of dams" (WCD, 2000). The WCD showed that even though dams had brought significant contributions to human development, in many cases the total economic and/or social costs of building dams were unacceptable. Simply using the 'balance sheet' method to assess the costs and benefits of large dams was unacceptable, because in this case there was a trading off of the loss of one group against the interests of another (WCD, 2000).

Dam construction, which usually takes place in the upland areas where ethnic minority groups reside, mostly serves the purpose of growth in globalisation, supplying energy and water to downstream cities and industrial zones (Gellert and Lynch, 2003). Dams in Vietnam, on the one hand, are considered by the state and investors as a key factor in industrialisation and modernisation, and fuel for the country's economic growth (Dao, 2009;¹ Son La People Committee, 2006; Vietnam Institute of Energy, 2006; VUSTA, 2006; Trang, 1995). On the other hand, they are also justified as a way to improve the livelihoods of ethnic minorities in the uplands of Vietnam (Son La People Committee, 2006).²

Decision No 110/2007/QĐ-TTg made by the Prime Minister, dated 18 July 2007, approved an Energy Master Plan for the period 2006-2015, taking into account conditions up to 2025. The plan set out energy growth targets with a baseline scenario of 17% per year and a high scenario of 20% per year (2006-2015). The total estimated investment for this period was about US\$79.9 billion, of which US\$52 billion was allocated to power plants and US\$27.9 billion for grid lines (on average, US\$4 billion per year). According to this plan, hydropower would be developed rapidly and continue to constitute a high percentage of the energy sector. In particular, multi-purpose dams would be given high priority.

Hydropower potential in Vietnam is located mostly along ten big river systems: *Đà, Lô-Gâm-Chảy, Mã-Chu, Cả, Vĩ Gia-Thu Bồn, Trà Khúc-Hương, Sê San, Ba, Sêrêpok* and *Đồng Nai*. River basins with the highest potential for hydropower include *Đà, Lô-Gâm-Chảy, Sê San* and *Đồng Nai*, accounting for 75% of the overall total. The development of large hydropower plants has received much attention from the government and investors. During 2000-2005, with support from SWECO, STATKRAFT and NORPLAN, domestic consulting companies under Electricity of Vietnam conducted the project "Study on hydropower planning" for all large river systems in Vietnam, in order to revise hydropower planning on these rivers (table 1).

However, dams, especially dams in Vietnam, are usually associated with involuntary resettlement. The extent and qualities of farming land and other agriculture resources (water, fertility etc) are probably the most critical issues associated with involuntary resettlement.³ Cernea (1990), a former World Bank sociologist involved in creating World Bank guidelines and policies relating to displacement, shows that expropriation of land removes the main foundation upon which people's livelihoods are constructed. In general, most of the lands lost to the dams are particularly fertile, so people usually have to move to a place where the lands are poorer and less productive. Land compensation usually fails to restore its land basis, and farmers' average land holding after resettlement always falls. Upland farmers with little formal education have very few options after displacement and often become landless labourers and impoverished. Critics argue that there is an explicit link between involuntary displacement and impoverishment (Cook, 1994; Mburugy, 1994; Rew et al., 2000).

¹ Dao, Xuan Hoc is Vice-Minister of Agriculture and Rural Development.

² In the preface of the Son La People's Committee's document 'Compiling of policies on resettlement for the Son La hydropower project' (2006), signed by Mr. Thao Xuan Sung, a Member of the Communist Party Central Committee, Party Secretary of the Son La People's Committee.

³ There are two major conceptual models for analysing the resettlement process: (1) four-stage model by Scudder and Colson (1982, 1996, 2005) and (2) the impoverishment risks and reconstruction model by Cernea (1990, 1999, 2000). These two models look at the resettlement process from different points of view, but in this paper I am not going to use any specific model to analyse resettlement processes. Instead, I focus on policies and practices.

Table 1. Hydropower development potential in Vietnam.

	River basin	Number of hydropower plants	Installed capacity (MW)	Annual electricity production (109 kWh)
1	<i>Đà</i>	7	6800	27.2
2	<i>Lô-Gâm-Chảy</i>	9	1500	6.0
3	<i>Mã-Chu</i>	7	760	2.7
4	<i>Cả</i>	3	470	1.8
5	<i>Vu Gia-Thu Bồn</i>	8	1250	4.5
6	<i>Trà Khúc-Hương</i>	2	480	2.1
7	<i>Sê San</i>	8	2000	9.1
8	<i>Ba</i>	6	650	2.7
9	<i>Sêrêpôk</i>	5	730	3.3
10	<i>Đồng Nai</i>	15	2900	11.5
	Total from plants with a generating capacity >30 MW/plant	70	17,540	70.9
	Total small hydropower plants with a generating capacity <30 MW		7000	30.0
	Total		24,000-25,000	100.0-110.0

Source: Adapted from Nguyen, 2009.

Dam planning processes and associated displacement and resettlement policies in Vietnam have been changing over time. In the past, Vietnam did not have a resettlement programme for situations where the state enclosed land for its own interests. Now though, it is in a period of adjusting its resettlement policies to be in compliance with international standards, and to respond to internal pressure resulting from problems with resettlement outcomes in the past. So, how have resettlement policies evolved over time? And how have resettlement programmes been implemented in Vietnam? In the next section I will outline how policies have changed.

CHANGING LEGAL AND INSTITUTIONAL CONTEXT

The Vietnamese state, immediately after the country's independence in 1945, confirmed its ownership of the land within its boundaries. This included both lowlands, where the majority of the Vietnamese (Kinh people) have resided for hundreds of years, and upland areas, where many different ethnic groups have also lived for generations. Along with the development of the Vietnamese modern state, a series of laws related to resource governance (such as Land Law, Law on Environmental Protection and Water Law) have been promulgated. These laws and policies have been revised and amended constantly in order to support the government's goal of 'more effective resources management'.

In Vietnam, once the country opened its economy and began pursuing neoliberal development policies, pressure began to mount from international and environmental groups promoting better accountability, transparency and participation in the development process. The government in general has begun to pay more attention to these issues. As a result, there has been a clear shift over time in the policy and planning process for the dam-associated displacement of local populations.

In order to understand better how the resettlement policy in Vietnam has evolved over the last few decades, it is important to examine the legal aspects of land and resettlement, landmarked by the year 1992, six years after the country opened its economy and implemented its reform policy. Before 1992, the land belonged legally to the state, so when required, the government could take the land. The resettlement process was carried out by cooperatives and communes' People Committees. These units simply persuaded people to move out, without planning for rehabilitation. Land was not considered an asset belonging to a household, so as a consequence compensation was very low. A resettlement site was simply a residential area without much farming land or favourable conditions for livelihood restoration (Trang, 1995). Accordingly, deforestation was the main way for re-settlers to obtain new farmland (Trang, 1995, Pham, 2000).⁴

Land tenure reform in 1992 was a significant improvement in land management and allocation in Vietnam. Some other laws to come into force thereafter were the Land Law (1993), the Civil Code (1995) and the Environmental Protection Law (1993). The Land Law specifies the rights and obligations of people who have been assigned or leased land (land users), based on which they have the right to change, transfer, lease or mortgage land use rights. Furthermore, they are entitled to compensation for any land loss. The Environmental Protection Law requires investors to undergo an Environmental Impact Assessment before proceeding with projects. The Land Law and Environmental Protection Law were important landmarks for improvements in resettlement policies and in planning processes for development projects, as we will show in the following sections.

During 1993-1997, for resettlement projects such as the Yali Falls dam and *Ba Hả*, investors were required to negotiate with the provinces' governments on issues of land and other compensation, because the investors were responsible for implementing the resettlement component. From 1994,⁵ along with the IMF (International Monetary Fund), ADB (Asian Development Bank) and JICA (Japan International Cooperation Agency), the World Bank became one of Vietnam's major donors. Its influence on the country's policies has increased ever since. In 1997, with support from the World Bank, the Vietnamese government implemented a national policy of resettlement, in order to establish standards of compensation and resettlement for those affected, and reach an agreement on policies (between the World Bank and Vietnamese government) that could be applied to all the national development projects.

Since 1998, resettlement policies have undergone further changes. Decree 22/1998/ND-CP identifies the subjects to be compensated. According to these documents, legal land users will receive compensation for land and its associated assets, while investors are asked to complete the construction of resettlement sites before people move in. A revised Land Law from 2003 provides more detailed land recovery instructions. Responsibilities for resettlement implementation were given to local governments instead of project investors. The argument was that local governments understand their people, as well as social and physical conditions in their areas, better than investors do.

Along with the change in economic and land use policy, the government has made many other changes relating to environmental issues. As well as the Land Law in 1993, the Law on Environmental Protection was an important policy approved by the National Assembly in the same year. Based on this law, all projects, plans or programmes must undergo an Environmental Impact Assessment (EIA) together with feasibility studies. An EIA is defined as "the process of analysing, evaluating, forecasting the environmental impacts of projects, of socioeconomic development plans, of production or business premises, of economic, scientific, technical, cultural, social, security, defence and other facilities, and proposing appropriate measures for environmental protection".

In 1998, after the World Commission on Dams was established and started its operation, Vietnam recognised and indicated its support of the WCD's activities. In May 1999, the Vice Prime Minister of Vietnam, Nguyen Cong Tan, sent a letter to Professor Kader Asmal, Chairman of the WCD. In this letter,

⁴ Also from the author's interview with a local official in Hoa Binh in 2006.

⁵ The US embargo on Vietnam was lifted in 1994.

the Government of Vietnam welcomed the establishment of the WCD and committed to support the activities of the Commission.

In a further step to realise its commitment to the WCD's work, in February 2000 Vietnam hosted the WCD's Regional Consultations in East and South East Asia – the last regional consultation meeting of the WCD. In September 2002, nearly two years after the report was released, with financial support from the UNEP Dams and Development Projects (DDP) a Vietnamese version of this report was published. The Ministry of Agriculture and Rural Development (MARD) was the key body in facilitating the translation and dissemination of the report, the translation of which received contributions from a number of senior multidisciplinary experts in Vietnam. According to a former officer from MARD (who was an editor of the Vietnamese version of the WCD report), about one thousand copies were reproduced and disseminated to central and local water stakeholders countrywide.⁶ All of these facts might suggest that there have been improvements in Vietnam's recognition of the importance of resettlement and its commitment to consider the recommendations seriously.

In October 2002, in cooperation with the Asian Development Bank (ADB), Vietnam organised a national workshop to discuss the outcomes of the WCD's report *Dams and Development – A New Framework for Decision Making*. During the workshop, group discussions prioritised and focused on three WCD report recommended policies: gaining public acceptance, sustaining rivers and livelihoods and addressing existing dam issues.

It could be said that the WCD was one factor contributing to the process of changing resettlement policy in Vietnam. Even though there was no legal document for the adoption or application of any among WCD's seven recommendations, there was further improvement in the resettlement policy of Vietnam. In 2004, Decree 22/CP (above) was replaced by Decree No. 197/2004/NĐ-CP on guidance for compensation, assistance and resettlement when appropriating the land of affected households. Decree 197 contains more detailed instructions for resettlement implementation. It separates the cost for compensation, as well as the cost for a resettlement site's construction, and also loosens the conditions for compensation. As long as the affected people live on undisputed land (i.e. there is no fight over the land), they will receive compensation, no matter whether they have legal title to the land or not. The decree also gives more detailed instructions on supporting displaced people in redirecting their livelihood activities. According to experts, this improvement can be seen as a result of the World Bank's safeguard policy influence (Pham and Lam, 2000). In fact, the dissemination of the bank's safeguard policy gave people a chance to compare government policies with other policies, leading to domestic pressure to improve government strategy (Tran, 2007).⁷ In particular, the newly issued Decree No. 69/2009/QĐ-TTg clarifies the compensation and support given to people whose land is taken by development projects. It raises support levels based on the profit from the new land uses. According to this new policy, there should be diversity in housing types in resettlement sites, and more land should be allocated to re-settlers. Furthermore, the resettlement programme must be designed to fit the different needs, capacities and customs of the affected people. An important aspect of this decree is the requirement that investors and local government put in place supporting programmes to enable affected people to transfer to new income generating activities.

In 2005, in response to the soaring development of hydropower projects in Vietnam, some NGOs working on energy and water issues, including the Vietnam Union of Science and Technology Associations (VUSTA) and the Vietnam Rivers Network (VRN), started promoting the WCD's recommendations, as they were very keen on continuing to disseminate the report widely among NGOs and CBOs (community-based organisations). The VRN has recently been very active in promoting WCD recommendations among its members and to the public through media involvement. In particular, in November 2009, it successfully organised a first two-day training workshop in Hoa Binh for its members, partners and media representatives in the north to learn more about the WCD's guidelines

⁶ From the author's interview with the officer on 24 October 2009.

⁷ Also from personal interviews with resettlement officers in 5 September 2009.

and strategies. It continued by expanding this activity to the central and south regions of Vietnam. A Vietnamese language version of the overview was disseminated extensively among the VRN's members and partners. In addition, the VRN has been working to find relevant ways of lobbying and advocating to legitimise these recommendations.

In brief, in the period between the building of the Hoa Binh and Son La dams, there have been significant improvements in resettlement policies. Vietnam now is more integrated into and committed to international processes and 'best practices', a result of which is that its policies and laws have changed substantially. There is also more open discussion among NGOs and the media regarding resettlement issues. These changes can be seen as resulting from different contributing factors, both internal and external. So, how has this changed practice? What are their effects on the people? In the next section I will examine the Hoa Binh and Son La dams, which will help to describe the intertwined relations between resettlement planning, policy, implementation and its consequences in the context of contemporary Vietnam.

HOA BINH AND SON LA CASE STUDIES

We have seen how policies in Vietnam have improved over time in relation to what dam researchers and critics would like to see. However, as mentioned earlier, this improvement in policy can only bring limited improvement in implementation. Being twenty-six years apart, Hoa Binh and Son La represent two different periods of the country's dam development programme. This section will draw on extensive research on the practice of resettlement to show that there have been significant changes in the way in which resettlement is conducted, but that a gap remains between improved policy and planning and implementation processes, which demonstrates the difficulties of turning policy into practice. I would argue that the gap probably continues because in reality the will to improve is not always in favour of ordinary people, but sometimes in the opposite direction (Li, 2007, also see Wittayapak and Vandergeest, 2010).

Hoa Binh dam

Located on the Da river, 75 km west of Hanoi, Hoa Binh is the largest completed hydropower project in Vietnam and Southeast Asia as a whole. The idea of the dam was formulated in the 1960s during the American war, with support from the former Soviet Union. Construction started in 1979 with technical and financial Soviet assistance. While many people (including the author of this paper) at that time were very excited by the fact that we were going to have the biggest dam in Southeast Asia and would no longer have to suffer regular power outages in Hanoi, no one ever noticed that, in order to make way for the project, thousands of people would have to lose their homes and livelihoods. At that time, knowledge and experience of resettlement was zero for both Vietnamese officers and Soviet Union experts.⁸ These facts were not revealed until research was undertaken by a few international and national scholars in the 1990s (Hirsch et al., 1992; Diep et al., 1992; Diep, 1997; Trang, 1995).

Legal context

This was a typical top-down project. The dam was planned and built long before the issuance of land tenure reform, land law, as well as environmental protection law, as discussed above, which meant that the compensation policy was not clear and was unfavourable to displaced people. Furthermore, no environmental impact assessment for the dam was produced. During construction of the Hoa Binh dam, Vietnam's resettlement policy was in the very early formulation stages, and there was neither international nor domestic pressure for its implementation.

⁸ Author's interview with a government official who used to work in the design team for the Hoa Binh project, 12 August 2009.

Project implementation

The actual displacement process itself under the Hoa Binh project was a long and very difficult effort. It was formally carried on for almost 17 years, from 1979 to 1996. Even in 1998, there were still 500 households which needed to be moved again.⁹

In the 1970s, when the government planned to move people out of the reservoir area to prepare the construction site, local officers and project management boards simply announced to the people that there would be a dam project for 'the national interest' and they had to move out of the soon to be submerged area. Experts calculated the benefits of the project based on the 'payback period' method, which was a very popular method used by the Soviet Union's economic experts during the 1960s-80s. The payback period for Hoa Binh dam was twelve years, meaning that after twelve years of operation, the project would start to generate revenue above the costs involved in building the dam. Costs for the project included only construction and installed equipment (Hydroproject, 1978). Environmental and social expenses were completely excluded from the calculation (Hydroproject, 1978).

The compensation given to families to move from the dam site in Hoa Binh was very low and not well organised (Trang, 1995; Pham, 2000). The compensation programme did not start until 1983 and lasted for more than 10 years. The unit price for compensation was based on the price in 1976 (Trang, 1995). It took 30 years for the Hoa Binh hydropower project to be completed, from preparation to implementation. The legacy of the poor management of the resettlement process continues to today. There were many reasons for these shortcomings, but insufficient experience and lack of understanding about the importance of appropriate management of resettlement played a crucial role.

Project impacts

The social impacts of large dam projects are diverse. The biggest problem caused directly is the displacement of affected people. The 58,000 re-settlers from the Hoa Binh dam consisted of *Mường*, *Tày*, *Dao*, *Thái Trắng* (White Thai), *Thái Đen* (Black Thai) and *Kinh*. *Mường* and other ethnic minority groups comprising 79% of the total, while *Kinh* people accounted for the remaining 21%. (Trang, 1995) While most of the benefits of the project (e.g. electricity and water) assisted urban areas and lowland farmers, the problems generated by the projects fell mostly on the displaced people, who faced many difficulties in setting up their new lives. The compensation given to the displaced people was far from enough to enable them to settle down in their new locations (Trang, 1995; Pham, 2000; Dan, 2009).

Poor organisation and implementation of the resettlement process led to numerous serious negative impacts borne by the local people. Due to the inaccurate estimate of the height of the post-flooding water level, some of the larger projects such as roads, offices, schools or health care services were submerged again, just after they had been constructed (Trang, 1995). In addition, resettled people were also subjected to many other uncertainties. Land quantity and quality were critical issues at most of the resettlement sites. On occasion, serious conflicts over land use and common resource exploitation arose among local and displaced people, resulting in disadvantages to displaced people (Trang, 1995; Dan, 2009). A number of villages adjoining the new reservoir did not have electricity, even after project completion. A recent study in three *di trấn* communes shows that 20% of them still do not have access to electricity from the national grid line at the present time, and 34% do not have access to clean water (Dan, 2009). Other villages sometimes do not have enough water for their subsistence farming. Furthermore, children suffer from illiteracy due to the lack of schools, since there were no clear planned resettlement sites prepared for the re-settlers, so many of them just moved further inland to more remote areas and away from the schools. In other villages, children have to row their boats to get to school, and as a result many children drop out – again, another cause of illiteracy.

⁹ Author's interview with a resettlement officer in Son La province who used to work in the resettlement unit for Hoa Binh project, conducted in Son La on 26 December 2005.

Similarly, inaccessibility to or the poor quality of primary health care have exacerbated health problems in the area, and poor diet and sanitation have led to many diseases (Pham, 2000). As a consequence, according to a study by Dan (2009), 60% of the displaced people in Hoa Binh live under the poverty line, and 54.3% of the children in these communities have gone no further than finishing elementary school. Poor diet and food shortages also mean that it is very hard for these households to celebrate important events such as New Year, weddings or funeral ceremonies the way they used to before moving. It is reported that from 1987 to 1990 around 100 people died from malaria within the province (Pham, 2000).

By and large, in terms of resettlement, the Hoa Binh hydropower project was only successful in moving people. Neither rehabilitation nor restoration programmes were a part of the resettlement, which as a result made Hoa Binh a project with some of the most serious negative social impacts in the country (Trang, 1995).

Beside the social impacts, Hoa Binh dam caused critical impacts on the environment. Most of the serious impacts were noticed only after the first turbine generated electricity in November 1988 (Dan, 2009). The impoverishment of displaced people in the Hoa Binh project resulted in serious environmental degradation in the resettlement area (Son La report, 1998). Increasing pressure on the exploitation of local resources led to conflicts among resettled and existing communities. Since the government did not have any specific policy or guidelines for people in the resettlement area, the forests and other common lands were exploited in an unsustainable way (Trang, 1995; Dan, 2009). According to a study by Son La Province's People's Committee (Son La Report, 1998), the number of fish species fell from 80 in 1976 to 21 in 1998, and the most valuable species declined dramatically in quantity. It is considered that this decline was due to the blocking of upstream fish migration by the dam. Other dam-related issues include damage to the ecosystem, problems with sedimentation and adverse downstream impacts.

Son La dam

On 29 June 2001, construction of the Son La hydropower project on the Da river (about 250km from the Hoa Binh dam) was formally approved by the National Assembly of the Socialist Republic of Vietnam (Decision No44/2001-QH10). It became the most controversial project in modern Vietnam and required the largest resettlement of people in the country's history. Concerned about the massive impacts of the project, most multilateral and bilateral institutions, including the World Bank, refused to step in.¹⁰ Therefore, it was a 100% state-funded and managed project. Chinese companies won the international public bidding, so about 90% of the project equipment (steel works and generating equipment) was provided by Chinese companies, while only 10% (including powerhouse downstream gates, penstocks and intake gates) was made in Vietnam.

The dam, which is 215 m tall, caused the displacement of about one hundred thousand people across three provinces: Son La, Lai Chau and Dien Bien. Of these, 83.1% belonged to the *Thái* ethnic group (both *Thái Trắng* and *Thái Đen*); the remainder included *La Ha* (5.9%), *Kinh*, *Mảng*, and *Giáy*. The project flooded 23,333 hectares, of which almost 10,000 hectares was agricultural land including rice paddies, gardens and fishponds, and more than 3000 hectares classified as forest (PIDC No. 1, 1999). Among the displaced households, 80.3% engaged in farming, depending entirely on arable land (VUSTA, 2006). Thus, as with many of the existing dams in Vietnam, the affected people consisted mostly of ethnic minority groups. One of the major concerns of both local governments and environmental groups continues to be a shortage of land for resettling the tens of thousands of displaced people (VUSTA, 2006).

As initially planned, the first turbine will start to generate electricity in 2012 and the whole plant will be completed and put into full operation in 2015.

¹⁰ Ironically, the Asian Development Bank (ADB), which strongly shows its support for the WCD's recommendations, while refusing to fund the dam itself due to its impact, is still planning to support the transmission line.

Despite the enormous number of people resettled and rehabilitated, Electricity of Vietnam was successful in persuading the government that to begin one year early in generating electricity would bring in an extra US\$500 million in revenue. Thus, starting up two years earlier than planned would produce an extra US\$1 billion for the state. From the investors' and government officials' point of view, economic development is extremely important and nothing should undermine it. Thus, the whole process including resettlement has been two years quicker than planned. In accordance with the plan, the diversion sluice was closed just prior to Ho Chi Minh's 120th birthday. The first turbine now is expected to start generating electricity in December 2010.

What has changed?

For the Son La dam, there were many changes in both policy and implementation. The resettlement was more organised and planned. Instead of the Soviet Union's economic calculation method, the Net Present Value (NPV) was used. This was a new method learned from international agencies. The positive figure in the balance sheet is one way to argue that the project should definitely proceed.

In contrast with the procedures for the Hoa Binh dam, the cost for resettlement and rehabilitation was included in the total budget for the Son La dam. It was estimated that the resettlement cost would be about 29% of the total project cost (Son La People's Committee, 2006). The inclusion of displacement costs into the project balance sheet was a positive change in the way dams are planned in Vietnam.

During the planning process of the project, there were two strong but differing opinions between the National Assembly's members about the dam size: one group supported a dam height of 265 m, arguing that a bigger dam would bring more benefits to the national economy, while the other group supported a dam height of 215 m, to lessen any negative impacts. The VRN had not been established by that time. Some overseas groups such as International Rivers, River Watch East and Southeast Asia raised their concerns about the potential impacts of the dam on local people, but to little avail. The Vietnam Union of Science and Technology Associations (VUSTA) was very active and efficient in this process, though. A number of scientists and academics from VUSTA worked together to push for the 215 m option, and after a great deal of lobbying, the government finally agreed to switch the dam height from 265 m to 215 m. Some National Assembly members very concerned about the social and environmental impacts of the project had opposed the dam or suggested construction of a few smaller dams instead of one big dam. However, their suggestions in the end were not approved by the National Assembly.¹¹

By the end of 2005, with support from International Rivers and the Ford Foundation, VUSTA had conducted a comprehensive study¹² on resettlement sites in Son La and Lai Chau provinces, and recommended policy changes to the government. The study findings and recommendations, which were released in 2006, were sent to related government institutions including the Ministry of Agriculture and Rural Development, the Ministry of Natural Resources and Environment and the Ministry of Industry. These Ministries sent their representatives to a workshop held by VUSTA to discuss the study. However, the speed-up of dam construction continued, causing time shortages for resettlement work.

Due to its scope, and besides the government decrees mentioned earlier, the Prime Minister issued extra legal documents solely for Son La project resettlement, specifically Decision No. 196/2004/QĐ-TTg, Decision No. 459/QĐ-TTg and Decision No. 02/2007/QĐ-TTg.

Decision No. 196 elaborated on the resettlement budget, while Decision No. 459 gave detailed instruction for assigning compensation and resettlement. Decision No. 459 encountered a series of obstacles in application after just a few years, and was later replaced by Decision No. 02/2007/QĐ-TTg. This last Decision gave more detailed instructions for compensation, assistance and resettlement for

¹¹ Author's interviews with one of the PMs who opposed the dam, August 2009.

¹² The study team included VUSTA's scientists and VRN's members.

the Son La project, and included amendments and supplements relating to management practices and benefits for both re-settlers and host communities. Since the resettlement component was assigned to local governments, the provinces of Son La, Lai Chau and Dien Bien were entirely responsible for the implementation of resettlement within their constituencies. Therefore, each provincial government also issued a number of decisions giving instructions for implementing the government's decisions in their own locale.

The resettlement and rehabilitation plan was prepared beforehand. Master planning for resettlement was conducted before dam construction. Surveys and investigations on resettlement sites were extensively conducted by professional institutions such as the National Institute of Agricultural Planning and Projection (NIAPP) and the National Institute of Geography, among others, during the 1990s. Resettlement implementation responsibilities were decentralised from province down to district, commune and even village levels. The re-settlers were informed about compensation policy and procedures before moving, following which most of them relocated to designated resettlement sites. Villagers were encouraged to visit their site before moving in. The resettlement programme paid attention to both lands for housing and farming.

After a pilot resettlement scheme in the Tan Lap and Si Sa Phin communes, where displaced people moved into already-built concrete houses, the province authorities for the first time accepted the people's request to change the housing policy. The new policy of dismantling the old house to rebuild in the new location helped people to keep their customary forms of housing. Support for house moving, according to most of the re-settlers interviewed, was very useful and even necessary. This is recognised as a major improvement in resettlement policy for the Son La dam.¹³

What has not changed?

Much like the Hoa Binh dam, the Son La resettlement project was still a top down process in many ways, despite the formal welcoming of WCD recommendations. The project did not meet any of the key recommendations of the WCD Report, including gaining public acceptance or addressing the social issues of existing dams. After the National Workshop on the WCD's recommendations in 2002, no action was taken to promote inclusion of these recommendations in the implementation of the Son La project.

Despite a number of changes in policy and planning, many aspects of the approach on the ground still have not changed. According to the government, the Son La dam is a key factor in the country's energy security and plays a vital role in modernisation, industrialisation and ensuring economic growth in the northwest (Son La People Committee, 2006): "Construction of the Son La dam is a great historic opportunity for the provinces in the northwest region in general, and Son La province in particular; it is a great opportunity to transition the economic structure toward industrialisation, modernisation, rearrange labour and population, and enable the province to rapidly and sustainably develop in the near future" (Son La People's Committee, 2006).

As with the previous dam, there was no public hearing for the project or for the decision to speed up resettlement by two years; affected people were informed about the schedule for moving their households, but not consulted to determine whether they agreed to the project or not. There have been no protests held inside the country against dam in general and the Son La dam in particular. In fact, although there was a certain amount of opposition in some areas at the project site, people in the end were persuaded to make sacrifices for the sake of the 'national interest'. The opposition was related mostly to resettlement sites or sharing benefits, not against the construction of the dam itself. According to the master plan for the Da river, there were options for developing smaller dams instead of one very large dam, but they were not taken into serious consideration. The argument was that the bigger the dam, the more economic benefit it would bring to the economy.

¹³ Author's interviews with villagers and resettlement officers in Son La and Lai Chau provinces in December 2005, January 2006 and April 2008.

Even though a master plan for resettlement was prepared in the late 1990s, detailed planning for most of the sites was not ready before the mass displacement started in 2005. With a huge amount of people to move in a very short time, resettlement units at district level had to recruit a large number of contract staff who had no or very limited knowledge of resettlement (VUSTA, 2006). This led to a problem wherein resettlement personnel at district level were not competent enough to handle the work smoothly. By the end of 2006, detailed planning for only 73 resettlement sites had been approved (accounting for 25% of the total project sites) (Khuc, 2007). Fifty-five resettlement sites lacked surface water, but were still included in the master plan because otherwise there would not be enough space for all the re-settlers.¹⁴

According to the Vietnamese Environmental Law, any development project that causes negative impacts on the environment and people's livelihoods must have an environmental impact assessment (EIA) before the approval of the project (above). The construction of the Son La dam started in December 2005, well before the final review of its environmental impact assessment, which was in May 2007.

Project impacts

The impacts of the resettlement process in Son La vary widely. In some resettlement sites, re-settlers have quickly rebuilt their houses after moving. In some other places, the planning and implementation were inconsistent, causing delays in construction. As a consequence, people have had to wait for a long time to get things ready for their new lives. In *di tập trung* sites, where people had to move to different districts far from their home towns, people received better attention from the local government compared to the other two types of resettlement (*di xen ghép* – mixing with host communities and *di vén* or *di nội xã* – moving to higher ground surrounding the reservoir). However, the huge number of re-settlers has caused many problems, many of which arose only after displacement and remained unsolved even four years after implementation.

Although project planners and technicians intended to minimise negative social and environmental impacts of the dam, resettlement remained riddled with complications related to land, livelihoods, compensation and infrastructure. As mentioned earlier, the land question continued to be the most controversial problem in all the resettlement sites because of severe limits in arable land. Before moving, many of the displaced families owned 5-8 ha of farming land, including lands for wet rice, rain-fed rice, maize, cassava, soybeans, grazing, etc. Once they moved to the new locations, it took a while for the local government to allocate new farmland for them. On average, each family received only 0.3 ha per capita or less (the case in Son La province) including gardens, fish ponds and farming land. Most of the families did not have land for wet rice farming, while the land for maize and cassava was on steep slopes not as fertile as their original land. After two years of food subsidies from the government, people are now struggling to make a living. They have to learn new ways of farming on hilly land (with fertilizers and pesticides) and new ways of raising livestock. Instead of catching fish in the rivers and streams, and picking vegetables from gardens, they have to buy fish, vegetables and other foods from the markets. Their lives have shifted from self-sufficiency to market-based in a very short time span. Supporting programmes through agricultural extension activities have not been effective in many cases.¹⁵ In addition, the policy target of having "electricity, road, school, clinic stations" – ready in the resettlement sites for people when they move in – was often not well achieved, which eroded people's trust in the government (VUSTA, 2006). Most of the infrastructure work in resettlement areas was still unfinished when the re-settlers came, i.e. no roads, electricity and/or water.¹⁶ Only the foundations for houses had been constructed (which should have been completed much earlier) and the pace of construction varied from site to site.

¹⁴ Author's interviews with resettlement officers, December 2005.

¹⁵ Author's survey in 2008 and 2009.

¹⁶ Author's surveys from 2005 through to 2009.

In addition, re-settlers received a large amount of money without learning how to use it. It was very common that instead of investing in production, they spent the resettlement money on durable goods such as TVs, motorbikes and furniture, or just as often drugs and alcohol (VUSTA, 2006).¹⁷

By the end of April 2010, there were still hundreds of households moving out of their homeland in a hurry to meet the deadline for sluice closure, even though the resettlement sites were still not ready. In some areas, like resettlement sites for Muong Lay town (Dien Bien province), even the ground levelling for housing was unfinished when people arrived. The mess in these areas made people think of battle fields at the frontier (Vu and Duy, 2010). All these problems will contribute to prolonging the ongoing process of settling down and exaggerating difficulties with adaptation and rehabilitation.

DISCUSSION

From the above two case studies, there has been a clear shift over time in the planning process for dam-associated displacement of local populations. Important changes include compensation policies (subjects to be compensated, compensation for both directly and indirectly affected people), improvements in subsidy and rehabilitation support (time and level) and levels of participation, among others. Policies have changed due to different contributing factors including international pressure and domestic social pressure, although it is not clear which is more important. A few key factors can be highlighted.

The first is the interest of the government in engaging with international processes and accepting (mostly in policy) international standards, in part because Vietnam is still dependent on international assistance. Second, the Vietnamese Government has learned from earlier problems that without efforts to take rehabilitation seriously, there will be major problems in resettlement areas, which will be hard to deal with in both the short and the long term. Last but not least are urgent needs of life and the complaints of local people and authorities. In addition, affected people are more aware of their rights and interests; they have better access to information and put more pressure on the government to improve its policies (Tran, 2007).¹⁸

Changes in the calculation method to include resettlement and mitigation costs in the total project cost have created better conditions for resettlement planning for restoring the lives of affected people. These changes aim at properly evaluating the cost effectiveness of the investment, even though the actual costs for resettlement and mitigation may be higher than estimated in these calculations. The resettlement planning, compensation and rehabilitation procedures have been improved through time, and local people are now able to participate in some of the stages (e.g. in the case of housing policy). All of the above help resettlement processes become more organised.

At the same time, there is still a large gap between policies and planning on the one hand, and implementation processes on the other. A diverse range of factors contribute to this gap. First, not all changes in policies are necessarily positive. There have been arguments against placing resettlement responsibilities with local governments instead of investors, that this change benefits both the investor and the provincial governments, but not the affected people.¹⁹ In fact, it is likely that local governments understand their locales better than the investors do. However, if investors only have to care about construction without taking any responsibility on resettlement, they will have no disincentive to speeding up the whole process in order to generate electricity as soon as they can. As a consequence, unprepared local resettlement personnel, coupled with time shortening, can make things worse.²⁰

¹⁷ Also from author's surveys from 2004 through to 2009.

¹⁸ Also from the author's interviews with resettlement policymakers in Hanoi in July and August 2009.

¹⁹ Author's interviews conducted in August and October 2009 with two staff of the team that prepared the Son La resettlement master plan.

²⁰ After coming back from resettlement areas of the Son La project in 2005, the author had a chance to interview a few staff from Electricity of Vietnam. When they were asked about their opinions regarding resettlement problems in Son La, the answers were quite

Second, not all improved policies are welcomed by implementers. The improvement in the Law on Environmental Protection has not brought much change in practice. Most of the time, individuals and firms try to avoid environmental costs. They usually tend to minimise or not include externalities into their costs. We can see a quite common contradictory situation: the state's interest in promoting industrial activities severely limits its ability to enforce environmental and other regulations that might decrease the profitability of these activities. Thus, policies to promote industry conflict directly with environmental policies. The Vietnamese state's 'three pillar approach' to development— economic, environmental and social – permeates most government documents, reports, and policies, but is rendered weak in practice. The required Environmental Impact Assessment (EIA) process in investment projects is trumped by economic considerations. Son La dam is a very obvious example inasmuch that: construction started before approval of the final EIA, and the project was speeded up for economic reasons. Time shortening in project implementation may bring in revenue sooner, but time is also needed to deal with social issues. Land use permits for specific locations are frequently issued to investors before an initial environmental examination or full-scale EIA has been conducted. Mitigation plans may either be neglected or poorly presented to competent agencies or environmental police.

Third, there is still continuity in justification for dam building in Vietnam from the points of view of: economic benefit and the ambition of modernisation. Hundreds of dams are still being built all over the country. Consequently, we can surmise that new laws and policies have not changed the overall direction in terms of relying on dams for the generation of power and irrigation. When so many dams are being planned and built at the same time, it is difficult to ensure that policies are properly followed.

There may also be hidden justifications for internal control and resources governance. When thinking about state power and the ideology of development and modernity remaining unchanged, the improved policies are unable to help affected people avoid becoming impoverished in poorly planned projects that prioritise economic benefits to non-local people. When the state moves towards neoliberalism, there is a hope that economic growth will create jobs and income for the mainstream population. Unfortunately, development policies, justified in the 'national interest', in practice continue to diminish poor people's ability to control and profitably use the natural resources they have depended on for generations. Every 'national' project is presented as beneficial to the whole population, even though it requires that some poor people give up their land or livelihoods. However, while the 'greater good of the nation' appears to be a worthy reason, it must appear suspect to the rural poor, who are consistently chosen to make all the sacrifices, while the more powerful gain the benefits (Baviskar, 2004).

The nature of the state-people relationship remains an issue despite all the improvements in land tenure policy and in resources governance. People are unable to avoid being clients in this client-patron relationship with the state. Land basically still belongs to the state. Whenever the state or developers need it for the 'national interest' or 'development purposes', people will still lose their home and all the attachments both tangible and intangible. Their sacrifice therefore continues to be necessary for the sake of the state. In the name of development, national elites, through the institutions of the state and the market, and often in collaboration with national and foreign capital, have appropriated and commoditised natural resources – such as land, water, forests, etc. People have been pushed off the land; their forests and water have been taken over by the state and the market, so that they have been deprived of everything except their labour (Baviskar, 2004), while without sufficient farming land, labour itself is not enough for them to sustain their livelihoods. In the end, the slogan "ensuring people have better lives or at least equal to that of before moving" for all resettlement projects in Vietnam seems to be an unattainable goal.

There are number of things that can be done to push positive changes in these processes. However, at this stage, there is an urgent need to raise people's awareness of the importance of the issue, and

similar: "We don't know. Resettlement is not our responsibility. We are only responsible for the construction. Anything related to resettlement, you should go ask the provincial governments".

widely disseminate information from the WCD, as well as the resettlement policies of the World Bank and other donors. Once ordinary people have better access to information, they may better understand about their rights and, to some extent, what they can claim in case they are affected. Furthermore, it is necessary to build capacity in participation and negotiation for individual communities. People can accordingly participate in and fight for more transparent planning and implementing processes. Increases in people's capacity, at the same time, can promote improvement in implementation processes. In addition, changes in society can bring certain changes in official government attitudes towards development. In the end, it is important to have a mechanism to allow civil society input not only in resettlement, but also in river basin planning and in water resources management decision making. Or, as Wittayapak and Vandergeest (2010) argue, "it points to the need to understand how decentralisation is located in political processes whose effects are rooted in the configuration of political movement". Organised efforts by ordinary people are necessary to pressure and take advantage of improvements in policies, to narrow the gap between policy and implementation in dam-induced resettlement in Vietnam.

ACKNOWLEDGEMENTS

This paper could not have been completed without continuous support and advice from my committee, namely: Prof. Peter Vandergeest and Prof. Robin Roth. I also would like to thank the headmen and villagers I interviewed, from whom I received invaluable insight regarding this issue. I thank them for their time and marvellous hospitality. I thank the Resettlement and Compensation Board of the Son La province, resettlement units at district level, as well as local authorities of all the districts and communes I visited for their help and assistance. Last but not least, I would like to thank the IDRC and ChATSEA for providing the funding to support the research. Without their help, I would not have been able to finish my research.

BIBLIOGRAPHY

- Baviskar, A. 2004. *In the belly of the river: Tribal conflicts over development in the Narmada Valley*. Delhi, New York: Oxford University Press.
- Cernea, M.M. and McDowell, C. 2000. (Eds). *Risks and reconstruction: Experiences of re-settlers and refugees*. Washington, DC: World Bank.
- Cernea, M.M. 1999. Why economic analysis is essential to resettlement: A sociologists's view. In Cernea, M.M. (Ed), *The economics of voluntary resettlement: Questions and challenges*, pp. 5-49. Washington, DC: World Bank.
- Cernea, M.M. 1990. Poverty risks from population displacement in water resources development. Development Discussion No. 355. Cambridge, MA, US: Harvard University Institute for International Development.
- Cook, C. 1993. (Ed). *Involuntary Resettlement in Africa*. Washington, DC: World Bank.
- CRES (Center for Natural Resources and Environmental Studies). 2001. Study into impact of Yali fall dam on resettled and downstream communities. Hanoi: Vietnam National University.
- Dan, T.P. 2009. Study on impacts of Hoa Binh hydropower project on resettlers surrounding the reservoir. Paper presented at a training workshop on World Commission on Dams' strategies held by the Vietnam Rivers Network in Hoa Binh, November 2009.
- Dao, X.H. 2009. Irrigation in Vietnam: Achievements and challenges in development. Opening speech at 63rd Ceremony of Traditional Day of Water Conservation in Hanoi Water Resources University, 28 August 2009.
- Dao, T.T.; To, T.N. and Nguyen, T.D. 2000. Planning process in Vietnam: Responding to competing needs. Hanoi: Vietnam's Ministry of Agriculture and Rural Development.
- Diep, D.H. 1992. The characteristic of ethnic communities – Social development of the Northwest area of Vietnam under the impact of dam's projects. Working Paper. Hanoi: Institute of Ethnology. (Original: Diệp Đình Hoa và tập thể tác giả, 1992, Những đặc điểm về cộng đồng dân tộc- phát triển xã hội Tây bắc Việt Nam dưới sự tác động của các công trình thủy điện. Hà Nội).

- Diep, D.H. 1997. The transformation of ethnic communities: The impact of Hoa Binh reservoir. Hanoi: Social Sciences Publishing House. (Original: Diệp Đình Hoa, 1997, Sự biến đổi của cộng đồng dân tộc. Tác động của hồ Hoà Bình. Nxb. Khoa học xã hội. Hà Nội).
- Electricity of Vietnam. 2007. Report on Environmental Impact Assessment of the Son La hydropower project. Hanoi: Electricity of Vietnam.
- Feldman, S.; Geisler, C. and Silberling, L. 2003. Moving targets: Displacement, impoverishment, and development. *International Social Science Journal* 55(1): 7-13.
- Gellert, P.K. and Lynch, B.D. 2003. Mega-projects as displacements. *International Social Science Journal* 55(1): 15-25.
- Hirsch, P.; Bach, T.S.; Nguyen, T.H.V.; Do, T.H.; Nguyen, Q.H.; Tran, N.N.; Nguyen, V.T. and Vu, Q.T. 1992. Social and environmental implications of resource development in Vietnam: The case of Hoa Binh reservoir. RIAP Occasional Paper No. 17. Research Institute for Asia and the Pacific, University of Sydney.
- Hydroproject. 1978. Hoa Binh hydropower project on the Da river in the Socialist Republic of Vietnam. Moskva-Bacu.
- Kaika, M. 2006. Dams as symbols of modernization: The urbanization of nature between geographical imagination and materiality. *Annals of the Association of American Geographers* 96(2): 276-301.
- Khuc, T.T.V. 2007. Impacts of resettlement policy on people's livelihoods after the resettlement: A case study of Ban Ve hydropower. MA thesis. Vietnam Institute of Sociology.
- Li, T. 2007. *The will to improve*. USA: Duke University Press.
- Mburugy, E.K. 1994. Dislocation of settled communities in the development process: The case of Kiambere Hydroelectric project. In Cook, C. (Ed), *Involuntary resettlement in Africa: Selected papers from a conference on environment and settlement issues in Africa*, pp. 49-58. Washington, DC: World Bank.
- Nguyen, V.B. 2009. Hoa Binh hydropower plant: Construction and operation. Paper presented at a training workshop on World Commission on Dams' strategies held by the Vietnam Rivers Network in Hoa Binh, 7-8 November 2009.
- Nguyen, D.O. 2009. Hydropower development in Vietnam: Potential and existing conditions. Paper presented at a training workshop on World Commission on Dams' strategies held by the Vietnam Rivers Network in Hoa Binh, 7-8 November 2009.
- Pham, T.M.H. 2000. Resettlement and rehabilitation for large dam projects affected people. Hanoi, Vietnam: Institute of Human Geography.
- Pham, T.M.H. and Lam, M.L. 2000. Resettlement in development projects: Policy and reality. Hanoi: Social Sciences Publishing House. (Original: Phạm Mộng Hoa, Lâm Mai Lan, 2000, Tái định cư trong các dự án phát triển: chính sách và thực tiễn. Nxb. Khoa học xã hội. Hà Nội).
- PIDC No. 1. 1999. Feasibility study of the Son La Hydropower project. Công ty Thiết kế và Tư vấn Điện Lực số 1. Dự án Thủy điện Sơn La – nghiên cứu khả thi, Báo cáo chính. Hà Nội.
- Rew, A.; Fisher, E. and Pandey, B. 2000. Addressing policy constraints and improving outcomes in development-induced displacement and resettlement projects. Oxford, UK: Refugee Studies Centre.
- Scudder, T. 2005. *The future of large dams: Dealing with social, environmental, institutional and political costs*. London: Earthscan.
- Scudder, T. 1996. Development-induced impoverishment, resistance, and river basin development. In McDowell, C. (Ed), *Understanding impoverishment: The consequences of development-induced displacement*, pp. 49-77. Oxford, UK: Berghahn Books.
- Scudder, T. and Colson, E. 1982. From welfare to development: A conceptual framework for the analysis of dislocated people. In Hansen, A. and Oliver-Smith, A. (Eds), *Involuntary migration and resettlement: The problems and responses of dislocated people*, pp. 267-287. Boulder, Colorado, US: Westview Press.
- Son La People's Committee. 1998. Report on socio-economic and environmental impact assessment of Hoa Binh hydropower plant and mitigations in Son La province. Son La: Son La People's Committee.
- Son La People's Committee. 2006. Compiling of policies on resettlement for the Son La hydropower project. Son La Province: Son La People's Committee.
- Trang, H.D. 1995. Scientific basis for stabilizing and rehabilitating for resettlers. Scientific Research at Ministerial level. Hanoi: Vietnam's Ministry of Agriculture and Rural Development.
- Tran, V.H. 2007. The development of rural mountainous area and the ethnic issues in the economic transition period. The Social Sciences Publishing House, Hanoi. (Original: Trần Văn Hà, 2007, Phát triển nông thôn miền núi và dân tộc trong thời kỳ nền kinh tế chuyển đổi. Nxb. Khoa học xã hội. Hanoi).

- Vandergest, P.; Bose, P. and Idahosa, P. (Eds). 2007. *Development's displacements: Ecologies, economies, and cultures at risk*. Vancouver, Canada: UBC Press.
- Vietnam Institute of Energy. 2006. Master Plan VI on power development of Vietnam. Hanoi: Vietnam Institute of Energy.
- VUSTA (Vietnam Union of Science and Technology Associations). 2007. Assessment of Vietnam power development plan. Hanoi: Vietnam Union of Science and Technology Associations.
- VUSTA (Vietnam Union of Science and Technology Associations). 2006. A work in progress: Study on the impacts of Vietnam's Son La hydropower project. Hanoi: Vietnam Union of Science and Technology Associations.
- Vu, D. and Duy, T. 2010. Thủy điện Sơn La trước ngày tích nước. <http://sgtt.com.vn/Thoi-su/121003/Ky-2-Ngon-ngang-tai-dinh-cu.html> (access 19 April 2010)
- Wittayapak, C. and Vandergest, P. (Eds). 2010. *The politics of decentralization: Natural resource management in Asia*. Chiang Mai, Thailand: Mekong press.
- WCD (World Commission on Dams). 2000. Dams and development – A new framework for decision making. An Overview. London and Sterling, VA: Earthscan.