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FROM RESETTLEMENT TO SUSTAINABLE LIVELIHOOD DEVELOPMENT: THE POTENTIAL OF RESETTLEMENT AND LIVELIHOOD RESTORATION ARRANGEMENT TO ACHIEVE LIVELIHOOD SUSTAINABILITY.

**A Case Study of Resettled Communities on the Nakai Plateau
Nam Theun 2 Hydropower Project in Lao PDR**

A thesis presented in partial fulfilment of the requirements for the
Degree of Master of Philosophy in Development Studies at Massey University,
Palmerston North, New Zealand



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2012

ABSTRACT

Over the past few decades, development-induced displacement and resettlement has potentially run the risk of impoverishing local populations, threatening people's livelihoods and truncating their chances for sustainable development. To address the impact of displacement and resettlement on affected communities, a 'resettlement with development' approach has been increasingly adopted by numerous development agencies focusing on mitigation policy, plans and strategies. Particularly, the integration of a sustainable development concept into livelihood restoration initiatives has gained more attention in resettlement and development discourse. This thesis explores claims that the risks associated with resettlement can be avoided or mitigated by careful planning that includes livelihood development initiatives for the affected populations. Specifically, this thesis examines the potential of the existing resettlement and livelihoods restoration programs to address the livelihood sustainability of resettled communities associated with the Nam Theun 2 Hydropower Project in Lao PDR.

The findings of this study indicate that the Nakai resettlement and livelihood restoration programs have the potential to strengthen local capacities. This is particularly through the increased access to various livelihood assets and resources. With resettlement, Nakai resettlers have experienced a significant improvement in physical capital such as shelter, road access and communication infrastructure. The improved access to physical capital following resettlement has further enhanced resettlers' ability to gain access to human, social and financial capitals. The capacity to access these resources is seen to be vital for the reconstruction of the resettlers' livelihoods, and can also be crucial for the achievement of long-term livelihood sustainability.

The results of this study further suggest that the Nakai resettlement and livelihood restoration scheme has to date supported the resettlers on the Nakai Plateau in gaining a number of positive livelihood experiences. These extend beyond economic or monetary gains through increased income and access to employment, to also include other social and psychological benefits such as better health care and education, and an improved sense of security and self-esteem. All of these achievements were found to be fundamental for resettlers in realizing their own livelihood goals and objectives in the future.

Finally, although the findings of this research identified some challenges experienced by resettlers such as the reduction of agricultural and grazing land area, none were perceived to be major threats that were preventing them from achieving their livelihood objectives. Instead, the experience with the Nam Theun 2 project has highlighted one of the key lessons learnt from previous resettlement programs that is worth highlighting for future resettlement program mitigation associated with development projects: to have the resettlers fully engaged in the entire process of livelihood strategy development.

ACKNOWLEDGEMENTS

In recognition of the support and assistance throughout this research, I would like to acknowledge a number of people, individuals and groups who have contributed to this study and more importantly made this thesis possible.

First and foremost, a heartfelt thank you goes to all my village participants in Ban Nong Bua, Ban Don, Ban Sob On, Ban Sob Hia and Ban Nong Bua Kham; your warmth and sincerity made my fieldwork such an inspiring and rewarding experience. Thank you to all the Five Villages' Chiefs for your support and allowing this research to be carried out in these villages.

I would also like to extend my greatest gratitude to Mr. Sybounheaung Phandanouvong and Mr. Sivixay Soukharath for taking the time out of your busy schedules to meet with me, providing me with information on the Nakai resettlement programs, and offering me the most valuable support and advice during my fieldwork. I am also thankful to my research assistant, Ms. Vilayvanh Sivixay, who kept me company to the research sites and gave me a great deal of help with facilitating the interviewing process. Also a sincere thank you to Mr. Frederik, Dr. Olevanh, Mr. Noukone and other NTPC staff, who provided a warm welcome, helpful assistance and valuable information in this research.

My Chief Supervisor, Associate Professor Glenn Banks and Second Supervisor, Dr. Maria Borovnik have been a great support for me academically. Their professional guidance and constructive comments were critical in intensifying my thoughts and refining my writing. A sincere appreciation also goes to all my other lecturers at Massey University Institute of Development Studies, Professor Regina Scheyvens, Dr. Gerard Prinsen and Dr. Rochelle Stewart-Withers.

I would also like to express my appreciation to the NZAID who granted me an opportunity to undertake an academic experience in New Zealand. Also to the International Student Support Office, especially to Olive Pimentel and Jamie Hooper for your kind assistance and support, thank you. Many thanks to the Massey University People, Environment and Planning Graduate Research Fund for their financial contribution to this study.

Friendship and encouragement from my fellow classmates and friends, Joy Davidson, Melanie Pimentel, Roncera Fuimaono, Gloria Tapakea, and Axel Malecki at Massey over the last two years have been meaningful and filled with many wonderful memories. My sincerest thanks also to Suripaphone Meys, Little Axel, Vongtavanh Sayavong and Kevin Heagney; your friendship and comfort have made my time in New Zealand more enjoyable and most memorable.

Finally and most especially to my dearest parents (Ba Dững and Mẹ Nga) in Laos, my two Big Sisters Chị Hằng and Chị Hồng, my Little Sister Em Vy, and my Big Brother Aiy Troy, families and friends for your understanding, inspiration, love and support...THANK YOU VERY MUCH!!!

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LIST OF ABBREVIATIONS

| | |
|---------|--|
| ADB | Asian Development Bank |
| CA | Concession Agreement |
| DEPD | Department of Energy Promotion and Development |
| DFID | Department for International Development |
| DID | Development-Induced Displacement |
| DIDR | Development-Induced Displacement and Resettlement |
| FAO | Food and Agriculture Organization |
| GMS | Greater Mekong Sub-region |
| GOL | Government of Laos |
| IDA | International Development Association |
| IDS | Institute of Development Studies |
| IFC | International Finance Corporation |
| IPPs | Independent Power Plants |
| IRR | Impoverishment Risk and Reconstruction |
| KW | Kilowatt |
| Lao PDR | Lao People's Democratic Republic |
| LRN | Low Risk Notification |
| MDGs | Millennium Development Goals |
| MOU | Memorandum of Understanding |
| MUHEC | Massey University Human Ethics Committee |
| MW | Megawatt |
| NGOs | Non-Governmental Organizations |
| NGPES | National Growth Poverty Eradication Strategy |
| NPA | National Protected Area |
| NT2 | Nam Theun 2 |
| NTFPs | Non Timber Forest Products |
| NTPC | Nam Theun Power Company |
| NZAID | New Zealand Agency for International Development |
| ODI | Overseas Development Institute |
| PRF | Poverty Reduction Fund |
| PSDP | Power System Development Plan |
| RAP | Resettlement Action Plan |
| RMU | Resettlement Management Unit |
| SDD | Sustainable Development Department |
| SIDA | Swedish International Development Cooperation Agency |

| | |
|-------|--|
| SLA | Sustainable Livelihood Approach |
| SLF | Sustainable Livelihood Framework |
| UNCED | United Nations Conference on Environment and Development |
| UNDP | United Nations Development Programme |
| VFA | Village Forest Association |
| VRFA | Village Reservoir Fisheries Association |
| WB | World Bank |
| WCD | World Commission on Dam |
| WFP | World Food Program |

CHAPTER ONE

INTRODUCTION

1.1 Research Background

Forced resettlement is one of the major social consequences of most large development projects. According to Gutman (1994, p. 190), between the post Second World War period and early 1990s, more than 50 million people were displaced by development projects in India and China, of whom over 20 million were relocated by the construction of hydropower related projects. Numerous case studies reveal that forced relocation or involuntary resettlement under many development projects, if unmitigated, can pose major socio-economic risk to the displaced populations (Gutman, 1994; Cernea, 1995; Downing, 2002; Tan, Hugo & Potter, 2003; Garikipati, 2005; Mathur, 2006). The severity of this impoverishment risk is clearly encapsulated in the World Bank's policy on involuntary resettlement: if appropriate measures are not carefully planned and implemented,

People face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity. Traditional authority and the potential for mutual help are diminished or lost.

(WB, 2001, p. 1)

As suggested by Downing (2002, p. 3), the effects of resettlement on a displaced community may include the "loss of physical" and "non-physical assets", including: homes, communities, productive land, income-earning assets and sources, subsistence, resources, cultural sites, social structures, networks and ties, and cultural identity. Therefore, resettlement significantly increases the risks of impoverishing local populations, threatening their livelihoods and truncating their chances for sustainable development.

In an attempt to address the resettlement impact and mitigate the risk of displacement-induced impoverishment, international intermediaries and non-governmental

organizations have formulated a number of international policies, standards and guidelines concerning resettlement and compensation mechanism (ADB, 1998, 2003; Fernandes, 2000; Muggah, 2000; WB, 2001, 2004; WCD, 2000; Downing, 2002; IFC, 2006). These international standards and policies have typically been translated into a wide range of compensation schemes, entitlements, and resettlement program design, in an effort to promote the restoration of livelihoods and rehabilitation. However, the literature often cites disappointment with many such endeavours in addressing impoverishment and achieving some form of livelihood sustainability for the affected communities (Duan & McDonald, 2004; De Wet, 2006a, 2006b; McDonald, 2006). To further understand the reasons for this, the current research seeks to assess the contribution of a recent, well regarded resettlement arrangement to the livelihood reconstruction in the Lao People's Democratic Republic (Lao PDR). It also simultaneously seeks to identify development gaps and suggest recommendations to mitigate impoverishment risks and improve sustainable livelihood development in future resettlement exercises.

One factor that motivated me to conduct this development research is my previous working experience with the World Bank, Vientiane Office. I had worked as a Program Assistant providing support to the World Bank Sustainable Development Department (SDD)¹ at Vientiane Office for three years from 2006 to 2009. There, I had provided administrative support to sector staff and coordinated with various government counterparts and project implementing agencies for a number of projects and programs, including Nam Theun 2 Hydropower Project (or NT2 Project). Aside from performing normal administrative functions, I had proactively engaged in operational work by participating in field visits during supervision missions to follow up on the progress of project implementation.

¹ The World Bank Sustainable Development Department (SDD) consists of a wide range of sub-sectors including agriculture and rural development, environment and social development, energy, transport, urban development, water, oil, gas, mining, and chemicals, information and communication technologies, and sub-national activities (WB, 2011).

By the end of 2007, I was assigned to work closely with the NT2 Project team and had accompanied missions to the project site on several occasions. I particularly recalled one of our field visits to a resettled community that sought to find out how they were doing after resettlement. My impression was that the majority were not truly happy and very uncertain about the changes brought about by the project. One of the villagers told me that she and her family were happy to move to the new resettlement site but were unsure how to cope with the new living environment once the project stopped providing the support. This raised an important question for me as to whether the project has really assisted resettled people to rebuild their lives and livelihoods, and hence, whether the project has successfully delivered what it had promised.

The Nam Theun 2 (NT2) Hydropower Project is widely regarded as an outstanding developmental model in terms of its financial and institutional arrangements to address social and environmental sustainability issues, including displacement and resettlement (GOL, 2005; Ovenden, 2007; Zeeuw, Gerin, Laking, Recelis & Salim, 2008; Halrows, 2009; McDowell, Scudder & Talbot, 2009; WB, 2010). According to Daniel Gibson, the Lead Social Development Specialist and Social Safeguards Advisor of the World Bank and former Social Development Specialist of the NT2 Project, “Nam Theun 2 Project is by far the resettlement program that has been most thoroughly prepared with a great amount of resources dedicated to implementation, and with sustainability in mind” (Gibson, personal communication on November, 2010). However, good resettlement policy and well-prepared resettlement plan does not necessarily translate into good resettlement practice and outcomes.

This study is an attempt to assess the existing contribution of the Nakai resettlement and livelihood restoration programs in strengthening or changing the local capabilities and access to livelihood assets. In addition, the study seeks to determine whether the well-being of the project affected communities has been improved as a result of this livelihood restoration scheme, with an emphasis on people’s own experiences, attitudes and aspirations. Finally, the study also attempts to identify potential risks from a local

perspective with the current state of the resettlement process that may hold back progress towards sustainable livelihood development. Key lessons learnt by stakeholders are also explored so as to suggest recommendations for future improvements of resettlement endeavours.

1.2 An Overview of Hydropower Development in Lao PDR

With a population of almost 6.5 million, a per capita income of US\$1,040 in 2010 (WB, 2011, p.1) and human development indicators that are among the lowest in the East Asia Region (BBC, 2011; UNDP, 2011), the Lao PDR, commonly known as Laos, is a sparsely populated and mountainous landlocked country endowed with extensive natural resources (Phomsoupha, 2009a, 2009b). Its territory covers a substantial part of the Mekong River basin (see Figure 1.1). Around 35 % of total inflows of the Mekong River are contributed by tributaries that are scattered through the territory of Laos (Phomsoupha, 2009b, p. 15). As the country intercepts monsoons from two directions – from the Gulf of Thailand and the Gulf of Tonkin – precipitation is high and favourable for hydropower development (DEPD, 2008). This presents an opportunity for Laos to develop hydropower plants to feed its domestic electricity consumption as well as to export electricity to neighbouring countries such as Thailand, Vietnam, Cambodia, China and Myanmar where demand for electric power has been steadily increasing (DEPD, 2008).

Electricity from hydropower plants was not produced in Laos until the late 1960s (DEPD, 2008). Some small hydro-electric plants ranging from 5 to 50 Kilowatt (KW) serving small isolated local grids in different parts of the country were commissioned at that time (NGPES, 2006; DEPD, 2008). By contrast, today the electricity or energy sector is the third largest export earner for the country (NGPES, 2006; DEPD, 2008). It has been estimated that the country has the potential to generate about 26,000 Megawatt (MW) through the application of hydropower; the current generating capacity constitutes only 3% of this potential (DEPD, 2008; Phomsoupha, 2009b, p. 15). Before 1993 only three

In 1993, the Government of Laos (GOL) signed the first Memorandum of Understanding (MOU) on a power exchange program with the Government of Thailand to support the development of power projects in the Lao PDR through the supply of up to 1500 MW of electricity to Thailand (PSDP, 2004, p. 51; Viravong, 2008; Phomsoupha, 2009a, 2009b, p. 15). The original MOU has been extended several times to accommodate the increase in demand for electricity in Thailand under which 7000 MW of electric power was agreed to be supplied to Thailand up to 2020 (Viravong, 2008; Phomsoupha, 2009a, 2009b, p. 15). The GOL also signed a MOU with the Government of Vietnam in 1998 covering the development of power projects in Lao PDR for the supply of 2000 MW of electric power to Vietnam (PSDP, 2004, p. 51). This MOU has been extended to increase the supply from 2000 MW to 5000 MW for the supply of electricity by 2020 (Phomsoupha, 2009a, 2009b, p. 15). Following the implementation of these MOUs, a number of feasibility studies as well as other social and environmental impact studies have been carried out throughout the country to search for suitable potential hydropower plants development sites (PSDP, 2004; Viravong, 2008; Phomsoupha, 2009a, 2009b).

With reference to the Lao National Growth and Poverty Eradication Strategy (NGPES) (2006), the power sector is identified as one of the potential drivers of growth. The power sector in Lao PDR serves two important national priorities: (i) it promotes economic and social advancement by providing a reliable and affordable domestic power supply, and (ii) it earns foreign exchange from electricity exports (PSDP, 2004, p. 1; Viravong 2008; Phomsoupha, 2009b, p.16). The Lao Government's plans for the power sector involve rapid and simultaneous development on several fronts with a view to: (i) expanding the generation, transmission, distribution and off-grid development to increase the electrification ratio for the country from current level of about 60% to a target of above 90% by 2020 (Phomsoupha, 2009b, p.16), (ii) increasing government revenues from independent power plants (IPPs) export investments and honouring power export commitments with Thailand and Vietnam by promoting a development carried out by private sector, and (iii) promoting 500 KV grid development with the Greater Mekong Sub-region (GMS) to integrate the power systems of Lao PDR and its

neighbours (PSDP, 2004, p. 1; Viravong, 2008; Phomsoupha, 2009b, p. 16). The power sector, and especially hydropower, thus has become an important contributor for Lao economic growth and poverty reduction efforts, and the exports in this sector amount to approximately 30% of the value of Lao PDR's exports (PSDP, 2004, p. 3; Viravong, 2008; DEDP, 2008; Phomsoupha, 2009b, p. 15).

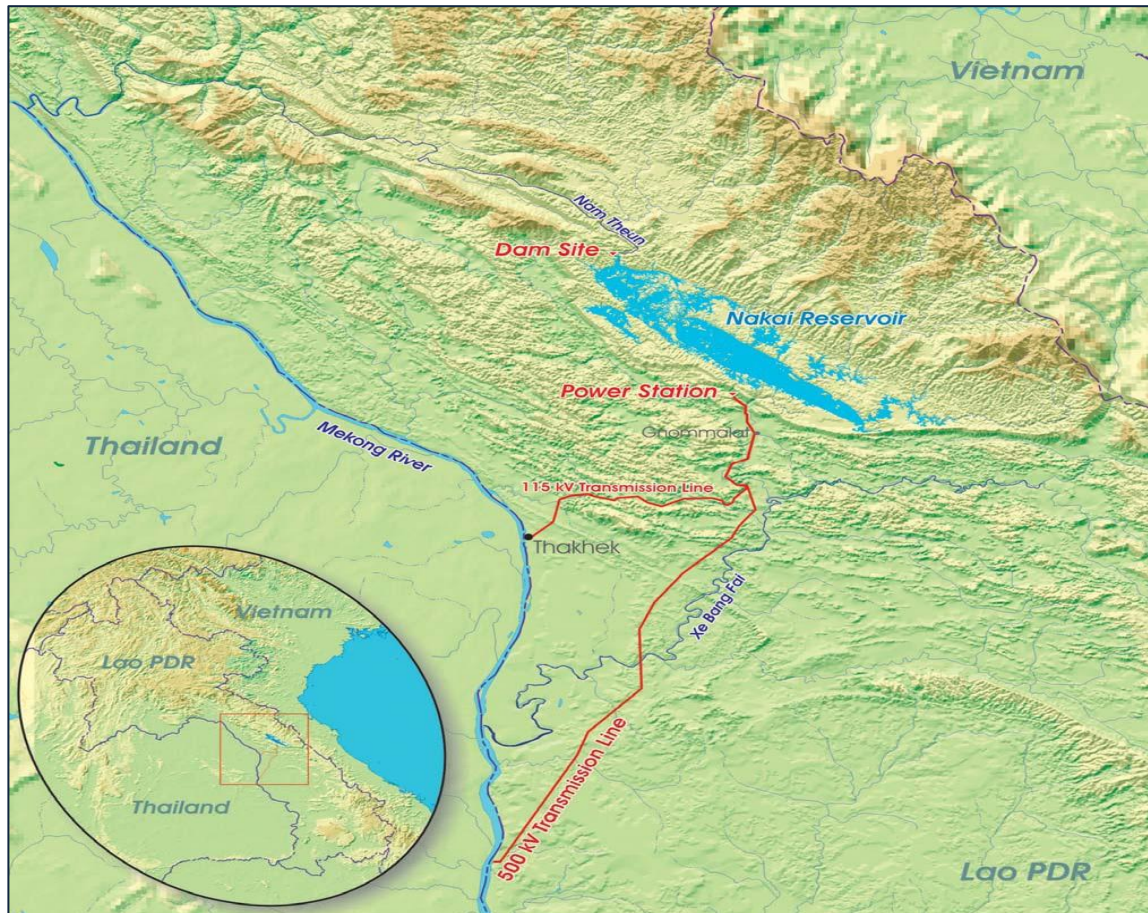
1.3 Introduction to the Nam Theun 2 (NT2) Hydropower Project

Nam Theun 2 (NT2) is a large-scale hydropower project in Lao PDR which has been designed and implemented over a ten year period starting in 1995. It actively involves the Government of Laos (GOL), private sectors, non-governmental organizations and multilateral financial institutions such as the World Bank (WB) and the Asian Development Bank (ADB) (NTPC, 2010). This project has been widely regarded as an outstanding project model where the GOL is working cooperatively with various sectors to develop a model of sustainable development from an industrial project with strong economic, social and environmental fundamentals (Ovenden, 2007). The NT2 project reached commercial operations in April 2010 and has now become by far the largest single source of foreign exchange income to Lao PDR (WB, 2010). To optimize the use of these revenues, the GOL has agreed with the World Bank to implement a Poverty Reduction Fund (PRF) that is being initially sourced from International Development Association (IDA) funds. Then, at a later stage, it will be sourced from the Government's taxes, royalties and dividend revenues once the project commences operation (NTPC, 2010; WB, 2010).

The project involves the development of linked hydropower schemes in three provinces namely Bolikhamxay, Khammouane and Savannakhet provinces in central Laos – see Figure 1.2 for the project location and key infrastructure (Ovenden, 2007; NTPC, 2010). Based on the project baseline data, the region is characterized as “intensive rural”- meaning high rate of poverty (NT2 Project, 2005a, p. 5). Nine districts are directly affected by the project activities (Khamkeut, Nakai, Gnommalat, Mahaxai, Xe Bangfai, Thakhek, Nong Bok, Xaibouly and Khanthabouly) with most activities taking place in the

districts of Nakai, Gnommalat and Mahaxai (Ovenden, 2007). The construction and operation of NT2 was projected to result in a range of impacts to the biophysical, socio-economic and cultural environment of the project area (Ovenden, 2007; NTPC, 2010).

Figure 1.2: Project Location and Key Infrastructure



Source: Ovenden, 2007, p. 7

According to Ovenden (2007, p. 6), the project is divided into three main areas which have each been the subject of resettlement, compensation and livelihood restoration. Firstly, the reservoir area on the Nakai plateau has been identified as an area where all of the affected households are entitled to relocate to a preferred agreed location, where they receive new housing, physical and community infrastructure, and the provision of an extensive range of livelihoods restoration program activities (Ovenden, 2007, p. 6). Secondly, the project 'construction' land is regarded as an area where the

acquisition of project land for construction of NT2 project components will result in impacts ranging from disturbance, to temporary and permanent land and asset acquisition. These will require compensation to project-affected households and restoration of their livelihoods (Ovenden, 2007, p. 6). Finally the downstream area of the power station is where the communities will experience varying degrees of impact on their livelihood and infrastructure resulting from changes in the hydrological regime, quality of water and erosion patterns in the receiving water bodies (Ovenden, 2007, p. 6). As a result, these communities are entitled to a range of compensation packages which may include cash compensation and/or livelihood restoration programs (Ovenden, 2007).

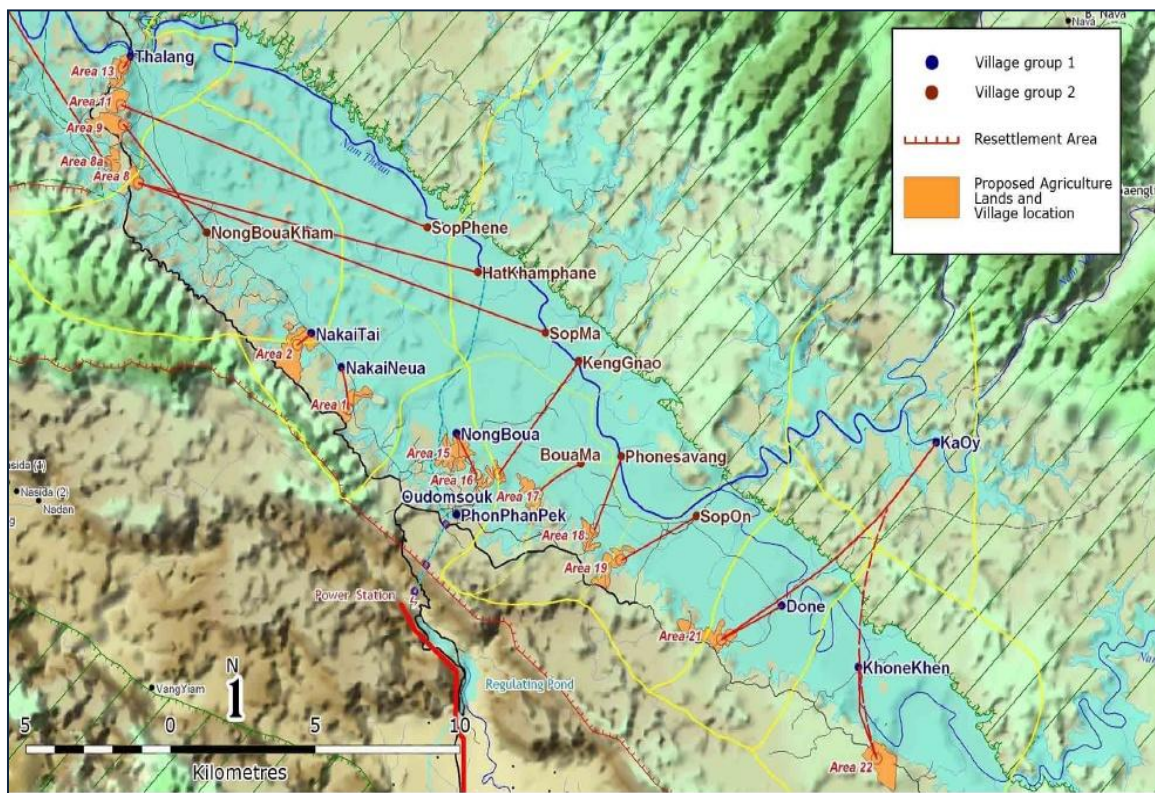
The development of the NT2 project has had a significant social impact on local communities inhabiting within and nearby the project land areas. A social impact assessment which has been carried out by the project company together with an independent monitoring agency indicated that more than 2700 family households have been directly impacted by the NT2 project construction work (Ovenden, 2007, p.6). The acquisition and either temporary or permanent use of land for construction and operation has resulted in impacts including disturbance of and temporary or permanent loss of land (including residential, business, agricultural and cultural lands) as well as assets (including common properties such as forest land and water resources; and community properties such as schools and temples).

The construction of a dam on the Nam Theun River, which is a tributary of the Mekong River, has created an approximately 450 square kilometre area of reservoir on the Nakai Plateau (Ovenden, 2007, p. 4). This construction has necessitated the relocation and rehabilitation of the livelihoods of more than 1200 family households in 16 villages – see Figure 1.3 for the map of villages moved on the Nakai Plateau (WB & ADB, 2010, p. 15). As a result of displacement the newly resettlers² were regarded by the project as likely to experience livelihood challenges due to unfamiliarity with the new environment and

² The term 'resettler(s)' is referred by the NT2 project as a displaced person(s) being relocated in a new resettlement site.

the inability to access land and natural resources. There was also a concern that displacement or resettlement would most likely damage traditional lifestyles, cultural identity and living standards, especially those of the poor populations who have a strong cultural connection with land and other resources (Phandanouvong, the project social development officer, personal communication on July, 2008). There was a case where some local villagers resisted relocation purely because they did not want to leave their cultural land that permitted them to continue their cultural practices (Soukharath, the project resettlement manager, personal communication on July, 2008).

Figure 1.3: Map of Villages Moved on Nakai Plateau



Source: WB & ADB, 2010, p. 15

In an effort to ensure the minimization of the negative impacts on, and adequate compensation for, the project-affected households, the GOL together with the Nam Theun Power Company (NTPC)³ committed to jointly develop and implement a series of

³ NTPC is the NT2 project developer

resettlement mitigation plans and strategies. These arrangements strictly comply with the legal framework of NT2 compensation and entitlements such as the Nam Theun 2 Resettlement Policy and the Concession Agreement (CA).⁴ The mitigation plans and strategies primarily include the conducting of social impact assessments in the earliest stage of project development, the development of the resettlement action plan (RAP), the enforcement of NT2 resettlement policies, the design and implementation of a compensation program, alternative livelihood restoration activities, and multi-layer monitoring and evaluation framework (GOL, 2005; Ovenden, 2007; Zeeuw et al., 2008; Halrows, 2009; McDowell et al., 2009; WB, 2010).

Particularly, the development of Nakai resettlement and livelihood restoration programs is central to the resettlement mitigation scheme. This is to ensure that resettled communities are able to access a diverse set of livelihood opportunities and achieve an acceptable level of income (GOL, 2005; NT2 CA, 2005; Ovenden, 2007). By having income streams, livelihoods and social systems restored, resettled communities are intended to be substantially better off (GOL, 2005; NT2 CA, 2005; Ovenden, 2007). (Please refer to Section 5.3 in Chapter Five for further information on the Nakai resettlement and livelihood restoration programs).

1.4 Research Aims and Objectives

Based on the discussion above and my own early observations of the project, the primary aim of this research is to examine the contribution of the existing compensation schemes or resettlement arrangements to livelihood sustainability of the NT2 project-affected communities in Lao PDR. Under this broad aim, three specific objectives and sets of research questions are pursued:

⁴ Under the NT2 Concession Agreement particularly on Schedule 4 on social component, the GOL and NTPC have developed compensation and livelihood restoration and improvement guidelines. These legal and policy documents were based on available GOL legislation and policies as well as social safeguard policies and guidelines from the international financial institutions, such as the World Bank and the ADB (Ovenden, 2007).

Objective 1: To assess the existing contribution of the Nakai resettlement and livelihood restoration programs in strengthening or changing the local capabilities and access to livelihood assets.

- *Have the Nakai resettlement and livelihood restoration programs assisted the reconstruction of livelihoods for those resettled people on the Nakai Plateau?*
- *In what way have the programs changed the local capabilities and access to livelihood assets?*

Objective 2: To determine from a local perspective whether the well-being of the project affected communities has been improved as a result of the Nakai resettlement and livelihood restoration scheme.

- *Have the Nakai resettlement and livelihood restoration programs helped resettled people access more secure income, education, health care, employment and other resources in comparison to their lives before resettlement?*

Objective 3: From a local perspective to identify potential risks with the current state of the program that may hold back progress towards sustainable livelihood development.

- *What are the most significant challenges faced by the affected communities in achieving a sustainable livelihood objective?*
- *What are the key lessons learnt from the Nakai resettlement and livelihood restoration programs?*

To address these research objective questions, I selected a mix of both qualitative and quantitative research methods. According to Brokington and Sullivan (2003), Chambers (2008) and Creswell (2009), a combination of the two can bring more meaningful outcome to the research. Thus, a qualitative case study of resettlers' livelihoods and their capability to access livelihood resources was conducted in five resettled villages on the Nakai Plateau. In addition, a quantitative approach to research analysis was integrated through seeking similar patterns in the data and grouping them into thematic findings, in order to observe trends, attitudes or opinions of the affected people regarding the significant changes brought about by the project. In-depth semi-structured interviews, field walks and observations, and project document analysis are the main data collection techniques used in this study. The main research participants in this study included 43 resettled households in the five villages and the villages' Chiefs.

Furthermore, key informants such as a Manager of the Resettlement Management Unit (RMU), a Nakai Resettlement Manager from the project company (NTPC), and a social development officer from the World Bank, were interviewed to develop a general understanding of the Nakai resettlement and livelihood reconstruction programs.

1.5 Layout of the Thesis

This thesis has seven chapters as following (illustrated diagrammatically in Figure 1.4).

Chapter One: has introduced background information on this thesis topic. It has provided a description of the research context and the study site, the Nam Theun 2 (NT2) Project in Lao PDR. Furthermore, it stated the study objectives and key research questions.

Chapter Two: provides a general overview of the displacement and resettlement literature. The chapter begins by introducing development-induced displacement (DID) and reviewing the Scudder and Colson (1982) model of resettlement processes and Cernea's (1997) impoverishment risks and reconstruction (IRR) model. Concepts of compensation, resettlement and rehabilitation are then explored. Key development perspectives and concerns within the contemporary resettlement discourse are further discussed.

Chapter Three: provides an analysis of the sustainable livelihood concept as an instrument for use with resettlement and livelihood reconstruction. Drawing on the Sustainable Livelihood Approach (SLA) adopted by the UK Department for International Development (DFID), this chapter also examines some of the key principles and components that constitute livelihoods. The value of a Sustainable Livelihood Framework (SLF) approach to the research analysis and some of the methodological or practical difficulties are also highlighted in this section. The last section in this chapter then justifies the adoption of the sustainable livelihood approach to the resettlement and livelihood reconstruction analysis.

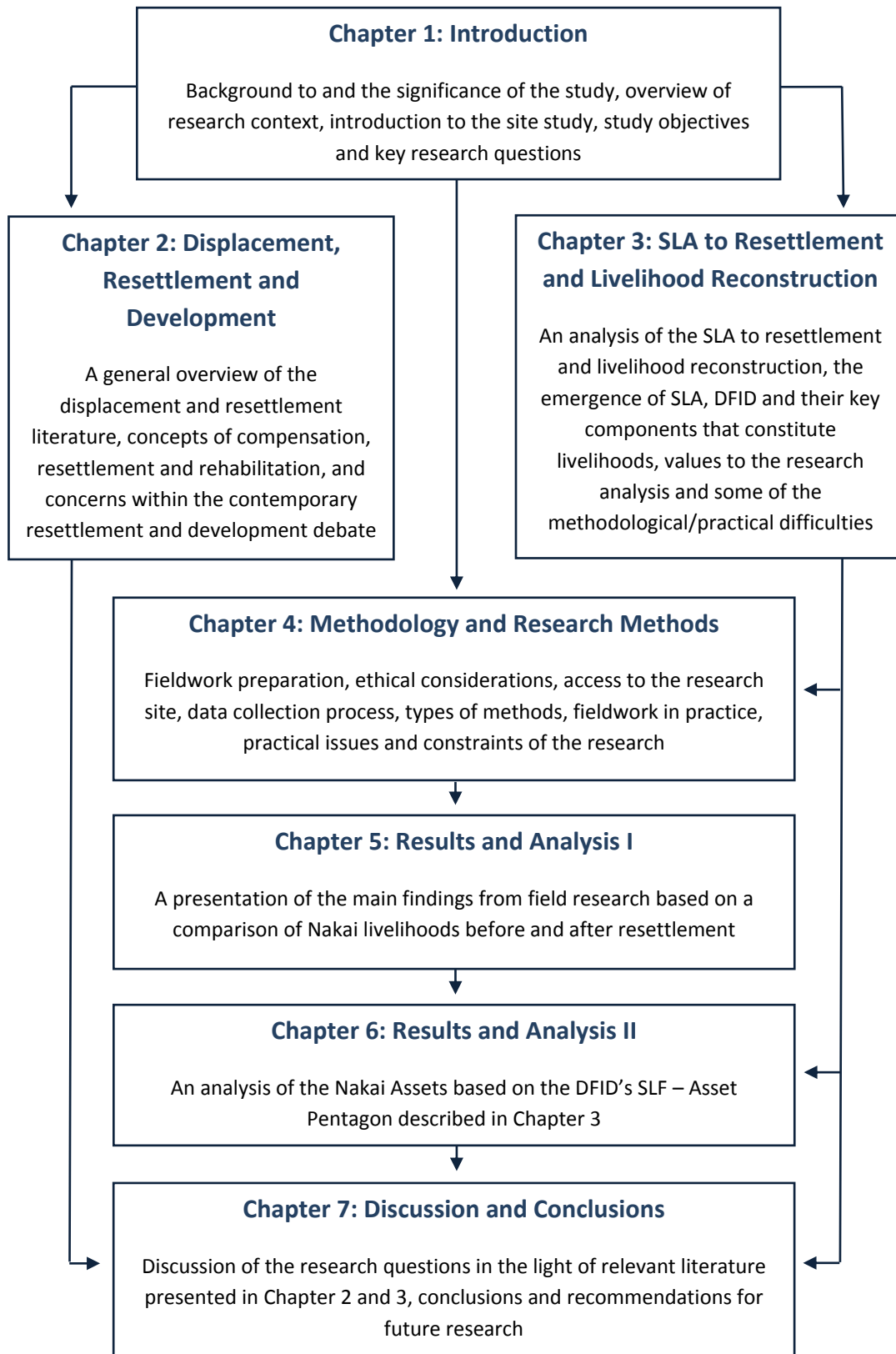
Chapter Four: focuses on fieldwork preparation, and the methods and methodological considerations that were applied in this research. This chapter begins with a description of the processes involved in fieldwork preparation, a discussion of ethical issues, and an explanation of the process required for entering the study site. The process of data collection is also covered as well as the rationale for the type of methods adopted, followed by specific considerations addressed in undertaking the fieldwork with special focus on practical issues and constraints of the research.

Chapter Five: presents the main findings and examines the research results with the aim of analysing the contribution of the Nakai resettlement and livelihood restoration programs to preventing impoverishment and reconstructing livelihoods of the resettled people in the Nakai Plateau area. This chapter primarily explores the changes perceived by the resettled communities to their livelihoods compared to the situation before resettlement.

Chapter Six: provides further analysis of the Nakai livelihood assets. By drawing on the DFID sustainable livelihood framework, particularly the livelihood asset pentagon as described in Chapter Three, and the study results presented in Chapter Five, this chapter investigates the strength of Nakai resettled communities' access to the five livelihood capital assets following the resettlement.

Chapter Seven: reflects back to the theory described in Chapter Two and Three in order to discuss the results presented in Chapter Five and Six, to address the three key research questions, which were the original motivation for this study. It examines whether and how the programs have contributed to reconstructing livelihoods of the resettled people on the Nakai Plateau. This chapter then explores the potential of such arrangements to lead to the development of sustainable livelihoods. This chapter also provides a concluding section, wherein I offer a brief summary by putting together the research aims, the relevant theories, and the research findings of the case study. I then wrap up this thesis by providing recommendations for future research with respect to improvement for resettlement development programs.

Figure 1.4: Diagram of Thesis Outline



CHAPTER TWO

DISPLACEMENT, RESETTLEMENT AND DEVELOPMENT

2.1 Introduction

This chapter aims to provide a general understanding of displacement and resettlement, and highlights some of the key relevant discourse in the literature. The chapter begins by introducing development-induced displacement (DID) and presenting the Scudder and Colson (1982) model of resettlement processes and Cernea's (1997) impoverishment risks and reconstruction model, a commonly used model for categorizing risks associated with displacement and resettlement (Section 2.2). In Section 2.3, concepts of compensation, resettlement and rehabilitation are explored. Some of the key development perspectives and concerns within the contemporary resettlement debate are further discussed in Section 2.4. Finally, Section 2.5 provides a summary.

2.2 Development-Induced Displacement (DID)

The study of development-induced displacement (DID), as one type of forced migration, has emerged as an area of interest for policy and academic research (Cernea & McDowell, 2000). The growing interest in DID could be partly explained by the dramatic increase of numbers of development projects around the globe and their socio-economic impacts on local populations attached to these schemes (Cernea, 2000; WCD, 2000). Over the last two decades, there have been more than two hundred million people displaced all over the world, about one hundred million of whom have been removed in the wake of infrastructure development projects alone (Cernea, 2000; Cernea & McDowell, 2000; WCD, 2000). In most of the cases, this movement has been forced, in the sense that the affected people have been compelled by the authorities to move, whether they wanted to or not and, short of resisting, they have effectively had no say in the matter (De Wet, 2006a). This process of displacement and subsequent settlement is called "involuntary resettlement" (McDonald, 2006, p. 6). McDonald (2006) further suggested that it is *involuntary* because the process is mandatory and *resettlement* because the affected persons must re-establish their lives in a new location.

To this end, Croll (1999, p. 468) defined involuntary resettlement as the forced relocation of entire households, which is intended to be permanent. However, within this definition exists a range of 'resettlement' from resettlement with only partial assets loss, to long distance resettlement in which people are moved into new jurisdictions thousands of miles from their original locale.

2.2.1 Stages of Settlement

Scudder and Colson constructed the first model of involuntary resettlement in 1982. This model, often called the Scudder-Colson model, was developed as a frame of reference for the study of populations undergoing forced relocation (Scudder & Colson, 1982). Essentially, data was taken from a number of dam resettlements and used to construct a predictive model of how communities, households and individuals respond to resettlement (Scudder & Colson, 1982; Patridge, 1989).

The four stages of Scudder and Colson's dynamic model of settlement process include: (a) planning and settlement recruitment – where the government and other responsible agencies make decisions about the populations to be relocated, (b) transition – where relocation begins and resettlers act to reduce associated stress, (c) preferential development - potential economic and social development, and finally (d) handing over and incorporation – the management of local production systems and the running of the local community are handed over to a second generation that identifies with the community (Scudder & Colson, 1982, p. 269; Gutman, 1994, p. 192-195). If the process succeeds, resettlers will be able to innovate, to increase their living standards, and to regain control over their communities (Mathur, 2006).

The Scudder and Colson model is the earliest attempt at modelling involuntary resettlement, which was later updated to combine Cernea's Impoverishment Risk and Reconstruction (IRR) Model (Cernea, 1996). This framework has been repeatedly applied in resettlement research, providing important insights and policy recommendations (Gutman, 1994). Results have, for instance, suggested withholding the introduction of

economic innovations during the early stages of resettlement, when the displaced population's capacity to take in additional changes tends to be limited. However, Partridge (1989, p. 380) questioned the reasoning behind the model, labelling it 'inconsistent' and noting that the creative aspect of the human condition is not well developed in the model. Partridge (1989) is unconvinced by the assumption that all resettlers are part of an open society and possess open-ended coping mechanisms.

2.2.2 Impoverishment Risks and Reconstruction (IRR) Model

Development-induced displacement (DID) drives widespread social, economic and environmental changes that follow well-established models (Downing, 2002). The most frequently used model for categorizing risk patterns is the Impoverishment Risk and Reconstruction (IRR) Model, developed by the senior social policy advisor to the World Bank, Michael Cernea and his team during their portfolio-wide review of the World Bank's development-induced displacement experience (Cernea, 1996, 1997, 1998, 1999, 2000). This model comprehensively deconstructs a process of displacement and identifies impoverishment risks known to be associated with involuntary displacement.

Investigation into displacement has found potential risks that deeply threaten social sustainability (Gutman, 1994; Cernea, 1995, 1996, 1997, 1998, 1999, 2000; Cernea & McDowell, 2000; Downing, 2002). These potential risks include: a) landlessness – the loss of land (the main foundation on which many rural people's livelihoods are constructed); b) joblessness – loss of wage employment; c) homelessness – loss of housing or shelter; d) marginalization – displaced people cannot regain previous social standard of living; e) food insecurity – calorie-protein intake levels are below the minimum necessary for normal growth and work; f) increased morbidity and mortality – serious declines in health and even death; g) loss of access to common property resources – loss of property assets that belong to the relocated community (forested lands, water bodies, grazing lands, burial grounds); and h) community disarticulation – disruption of the social fabric (social organization, interpersonal ties, kinship groups and informal networks).

The model captures the socio-economic content of both the displacement event and the reconstruction of livelihoods (Cernea, 1997, p. 1571). Practitioners and researchers can use the model as 1) a diagnostic tool – it diagnoses the recurrent pathologies of forced displacement; 2) a predictive tool – it provides warning about the adverse effects before the displacement occurs; 3) a problem resolution tool – it is oriented towards action; and 4) a research guidance tool - it can be used as a conceptual framework for hypothesis formation (Cernea, 1997, p. 1571; Cernea & McDowell, 2000, p. 14).

The Cernea's IRR (1997) model is arguably the most influential contribution to contemporary resettlement studies as it has formed an important basis for the analysis of involuntary resettlement and has allowed those undertaking research in the field to discuss and debate the issues of involuntary displacement in a systematic way. However, it has not escaped critique. Muggah (2000) noted that by concentrating on the collective risks of impoverishment, the model fails to highlight both the vulnerabilities and capabilities of those displaced. Others considered the model as an incomplete representation of the resettlement experience. Mahapatra (1999) suggested that the IRR model be expanded to include education loss as another major impoverishment risk. Similarly, Mathur and Marsden (1998) proposed including the loss of access to basic public services as additional risk, Downing (2002) recommended the loss of civil and human rights be added and Horgan (1999) suggested the inclusion of yet another risk – failure to implement. Finally, De Wet (2001, 2006b), Koenig (2006) and Oliver-Smith (2006) concluded that the model's assumption that resettlement problems can be erased by improvements in planning is overly optimistic. They advocated recognizing the complexities inherent in the resettlement process. Nevertheless, despite these criticisms the model provides an important foundation for investigation of involuntary resettlement.

2.3 Compensation, Resettlement and Rehabilitation

In the previous section, the resettlement process, impoverishment risks and reconstruction model were briefly introduced and reviewed. This section attempts to

investigate the existing approaches to displacement and resettlement effects that have been adopted and practiced so far in the literature. This section starts by discussing the compensation payment as an early approach to address displacement and resettlement. The concept of 'resettlement with development' will then be explored further.

Until recently, the arrangement of both the prevention of impoverishment and the rehabilitation of those displaced was based exclusively on compensation payments. Resettlement was almost synonymous with compensation paid in cash for reclaimed land and property losses (Mathur, 1995; ADB 1998). The philosophy was that if the fundamental material assets of the displaced people were provided for in cash or in kind then sufficient efforts had been made and the major obstacle to the acquisition of land was removed. At best, the affected people were provided with a lump sum of cash, an amount of money that usually did little to halt the displaced people's downward spiral into impoverishment (Mathur, 1995; Duan & McDonald, 2004; McDonald, 2006). Alternatively, land was provided to replace acquired land, but commonly the quality of this land was inadequate to restore production (Mathur, 1995; Duan & McDonald, 2004; McDonald, 2006). Hence, it comes as no surprise that time and again, compensation was found to be incapable of re-establishing the livelihoods of the affected community.

Case studies conducted in China, Africa and India demonstrates the inadequacy of compensation as a means to rehabilitate displaced people. In China, Jun (1997) reviewed the practices of three resettlements – Xin'anjiang, Sanmenxia and Yongjing – concluding that the displaced people commonly received inadequate compensation and were found to be worse off than their neighbours who were not displaced (Jun, 1997). Similarly in India, the study of resettlement in Kerala found that most displaced people were dissatisfied with the amount of compensation received to restore and enhance their standard of living (Murickan, George, Emmanuel, Boban & P.R., 2003). In Africa, the inadequacy of compensation in the Kiambere hydroelectric project and the Akosomba Dam led to a widespread social and economic impoverishment (Mburugu,

1994; Tamakloe, 1994). These studies suggested that compensation has done little to alleviate the impoverishment risks associated with resettlement.

Many development practitioners argued that impoverishment can be mitigated or avoided by careful planning that includes development programs for the affected populations. To mitigate the impacts of resettlement and therefore return the displaced people to their original development path, resettlement practitioners recommended that resettlement should be undertaken as a development project in its own right (Cernea, 1991, 1995; Mahapatra, 1999; Muggah, 2000; WCD, 2000). Moreover, by making the resettlers' the first beneficiaries of the development project, the associated impoverishment risks can be prevented (Fernandes, 2000). In this way, displaced people no longer bear the cost of development.

The application of this principle required a shift in the way in which involuntary resettlement has traditionally operated, from using compensation as the basis for re-establishing communities to planning involuntary resettlement as a development initiative (Cernea, 1999). McDonald termed this ideology "resettlement with development" (McDonald, 2006, p. 29). The concept of resettlement with development is being widely endorsed by academics in the field of resettlement studies, included in the policies of international institutions and increasingly in those of National Governments (Cernea, 1995; Mahapatra, 1999; Muggah, 2000; WCD, 2000; ADB, 2003; WB, 2004; McDonald, 2006). Encompassed in this philosophy is the expectation that in the event of forced displacement and subsequent settlement, lives of the affected people can be transformed for the better. Through the application of this resettlement with development concept, it is hoped that impoverishment risks can be mitigated or avoided, living standards can be restored and improved and livelihoods can be reconstructed sustainably.

Essentially, the 'resettlement with development' concept treats resettlement of those displaced as an opportunity for development so as to improve their livelihoods after relocation (Cernea, 1995, 1999). More specifically as expressed by Cernea,

“resettlement operations should be treated as development projects in their own right, benefiting resettlement” (Cernea, 1997, p. 1579). In his definition, Cernea (1997) went beyond the mitigation of impoverishment risks, to the construction of a new socio-economic basis for displaced people’s livelihoods. In other words, each impoverishment risk can be inversely related to the reconstruction of livelihood (such as reversing the impoverishment risks to reconstructing the livelihoods – from land loss to land-based relocation; from joblessness to re-employment; from homelessness to home reconstruction; from marginalization to re-inclusion; from food insecurity to regaining food security and overcoming health risks, regaining and securing access to common property resources and toward social re-articulation) (Cernea, 2000; Cernea & McDowell, 2000). Hence, the livelihoods of the affected people could be restored and then improved, so that their income could exceed pre-displacement levels (Cernea, 1997, 2000). In this sense, development is seen as something that is carried out rather than something that spontaneously occurs.

Despite receiving support for the application of resettlement within a development concept as increasingly valuable, Koenig (2001) suggested that there has been only limited discussion in the resettlement literature about what the criteria for development might be. To address this limitation, the World Commission on Dams (WCD)⁵ attempted to define the meaning of development in the context of resettlement (WCD, 2000). It sought guidance from the 1986 UN Right to Development and considered that development included five basic objectives: (1) equity in resource allocation and benefits, (2) sustainability of the world’s resource base, (3) openness and participation in decision making, (4) efficiency in management, (5) accountability to present and future generations (WCD, 2000, cited in Koenig, 2006, p. 112). In order to qualify as development, the WCD argued that a resettlement program must be centred on enhancing human capabilities and expanding social opportunities by addressing social and personal constraints that restrict people’s choices (WCD, 2000).

⁵ WCD is an international body representing diverse interest groups such as engineers, planners, dam owners, government decision-makers, environmental scientists, affected peoples and indigenous peoples, academics and researchers to discuss a range of dam-related issues including resettlement (WCD, 2010).

Through many years of studies and lessons learned from the past, resettlement experiences have led to substantial modifications of policies, strategies and plans to mitigate risks associated with development-induced displacement and resettlement (DIDR). These changes have been codified in many international financial institutions' policies and guidelines on involuntary resettlement, namely the World Bank Operational Policy 4.12 – Involuntary Resettlement (WB, 2001, 2004), the Asian Development Bank Operations Manual Section F2/BP – Involuntary Resettlement (ADB, 2003), and the International Finance Corporation Performance Standard 5 – Land Acquisition and Involuntary Resettlement (IFC, 2006). The core principle of these policies and guidelines is that involuntary resettlement should be avoided or at least minimized. However, where it is unavoidable, appropriate measures to mitigate adverse social and economic impacts on displaced persons and host communities should be carefully planned and implemented, and to ensure that the livelihoods and standards of living of resettled people are restored and improved (WB, 2001, 2004; ADB, 2003; IFC, 2006).

A fundamental instrument in reaching these objectives is a resettlement plan or a resettlement action plan (RAP) which is defined by Downing (2002, p. 12) as “a time-bound action plan with a budget that sets out resettlement strategies, objectives, entitlement, actions, responsibilities, monitoring and evaluation”. Most projects' RAPs have specifically set out the procedures and requirements for compensation for project-affected households within project land area (Ovenden, 2007). These plans have explicitly outlined the actions that the project developer has taken and will continue to take (Ovenden, 2007). With these plans put in place, the project will be able to mitigate adverse social impacts, and to compensate for losses and damages that result from involuntary acquisition of land, and provide development benefits to the project affected households (Ovenden, 2007).

Most importantly, the integration of the sustainable development concept into livelihood restoration initiatives, also commonly known as 'rehabilitation', was seen as deserving greater importance in resettlement and development discourse (Downing,

2002; Murickan et al., 2003). Many resettlement practitioners advocate that rehabilitation should be an integral part of the resettlement scheme (Mahapatra, 1999; Downing, 2002; Murickan et al., 2003). According to Joshi (1987, cited in Mahapatra, 1999, p. 192) 'rehabilitation' is defined as settling a community at a new location and nurturing it to ensure its steady and balanced growth, emphasizing that the concept focuses on achieving sustained development for displaced people. Rehabilitation entails processes provided in addition to compensation and relocation in order to ensure that, by having income streams, livelihoods and social systems restored, affected peoples and their offspring are substantially better off as a result of the project (ADB, 1998; Mander, Hemadri & Nagaraj, 1999).

The essence of rehabilitation is to reach a point where the displacees are not worse off than they were before displacement (Mahapatra, 1999; Mander et al., 1999). Mahapatra (1999) argued that rehabilitation or restoration only ensures that the rehabilitated society can continue as it was. The idea that resettled people should be no worse off as a result of being displaced is therefore consistent with the basic philosophy of sustainable development. Sustainable development involves not only relocating and rehabilitating the displacees, but assuring that resettled communities are better off than before and that they are beneficiaries of the project that was responsible for their displacement in the first place (Pearce, 1999a).

According to Solow (1986) and Pearce (1999b), the literature on sustainable development shows that one of the conditions for intergenerational equity is that stocks of capital assets be no less in the future than they are now. These assets stocks include the everyday concept of capital (machines, roads, and so on) as manmade physical capital, the stock of skills and knowledge (human capital), and the stock of environmental assets (land, trees, natural resources and so on) (Solow, 1986, p. 142; Pearce, 1999b). Later the stock of social networks, trust and relationship within a group or community, which are known as forms of 'social capital', has been acknowledged (Cernea, 1998, p. 47). To extend this then, the intergenerational requirement has as its

condition that the asset base of the displaced population should not decline as a result of development. The basic logic of the constant and increasing capital base argument is that capital provides the capability to develop (Pearce, 1999a).

During displacement, however, people often lose all forms of capital: natural, manmade physical, human and social (Gutman, 1994; Cernea, 1995, 1996, 1998; Downing, 2002; Tan et al. 2003; Duan & McDonald, 2004; Garikipati, 2005; De Wet, 2006a, 2006b; Mahur, 2006; McDonald, 2006). Gutman (1994), Cernea (1998), Downing (2002) and Duan and McDonald (2004) amongst other authors, argued that the loss of these capital assets weakens the local capabilities to reconstruct their lives and livelihoods. This loss is further disempowering for the displaced people and makes it difficult for their claims to resources and rights to be heard effectively (Gutman, 1994; Downing, 2002). A resettlement and rehabilitation model would therefore require not only adequate compensation for property losses but also adequate 'rebuilding of the displaced people's income-generating capacity and livelihoods, predominantly the four lost capitals' (Cernea, 1998, p. 44).

The idea that rebuilding the four capitals and the local capacity to access these resources could help address displacement and resettlement effects is consonant with the basic principle of a sustainable livelihood approach⁶ (Cernea, 1998; Mathur & Marsden, 1998; Cernea & McDowell, 2000; Fernandes, 2000; Krantz, 2001; Hussein, 2002; Carney, 2003; Duan & McDonald, 2004; McDonald, 2006). From a sustainable livelihood perspective, people rely on a number of capital assets and resources (such as natural, human, social, financial and physical capitals) which they can draw upon to make their livelihoods (DFID, 1999, 2004; Carney, 2003). These livelihood capitals constitute livelihood building blocks that can be combined, substituted for each other and switched. People can use one or more types of capitals to gain access to others (DFID, 1999, 2004; Krantz, 2001; Hussein, 2002; Carney, 2003). Rebuilding livelihood capitals and strengthening the local capacity to access these capitals could be crucial not

⁶ An analysis of the sustainable livelihood approach, particularly on rebuilding or strengthening various capitals to resettlement and livelihood reconstruction, will be further discussed in the following chapter (Chapter Three).

only for restoring people's livelihood, but also potentially for achieving sustainable livelihood outcomes. Therefore, resettlement mitigation plans and strategies that intend to address livelihood sustainability would require re-establishing livelihood capital assets and strengthening local capacity to access those resources.

2.4 Contemporary Debate on Resettlement and Development

While receiving considerable support for the application of a resettlement and rehabilitation model (Cernea, 1998, 2000; Mahapatra, 1999; Downing, 2002; McDonald, 2006), this particular section attempts to provide a development perspective and highlight some concerns within the contemporary resettlement discourse.

Most DIDR literature is explicitly associated with decreasing economic impoverishment and targeting development to the poorest that can be linked to broader national strategies to alleviate poverty and ensure the equity of benefits across society (Cernea, 1997; Mahapatra, 1999; Muggah, 2000; Fernandes, 2000; De Wet, 2006b). However, many other resettlement practitioners argued that there is a contradiction between the benefit of increasing 'national' welfare and the consequent poverty of resettled communities when the welfare of the displaced is 'sacrificed' as the end result (De Wet, 2006b; Turton, 2006; Barutciski, 2006; Rew, Fisher & Pandey, 2006). This argument raises a fundamental question of the relationship of resettlement to the protection of human rights and development (Barutciski, 2006). A number of international treaties specify freedom of movement, choice of residence, and ownership and possession of the land peoples traditionally occupy as general human rights (Barutciski, 2006).

Furthermore, Turton (2006) suggested that displacement raises the issue of rights at the level of national state, in which all citizens are held to be equal. Those displaced clearly do not enjoy equal rights when they are forced to leave their home land. Most are suffering from socio-economic impoverishment, for the sake of national economic development. According to Rew et al. (2006), a failure on the human rights front signals a failure for a development project. De Wet (2006b) further argued that development

that comes at the price of a lessening of the human rights of the affected people does not qualify as development. A failure to provide an alternative for entitlements such as livelihood, food security, home or socio-cultural heritage, which are lost as a result of displacement, amounts to a violation of human rights, as well as a disregard of the principles of equity (De Wet, 2006b). Cernea (2000, p. 12) also argued: “the outcome is an unjustifiable repartition of development’s costs and benefits: some people enjoy the gains of development, while others bear its pains.”

Moreover, while concerns about the mitigation of the economic impoverishment have received considerable attention from researchers in the field of resettlement, Koenig (2001, p. 17, 2006, p. 107) suggested that there has been an absence of discussion on political aspects and concerns about the distribution of societal power having only been present at the margins in the DIDR literature – and has led to a failure to address resettlement problems effectively. Koenig (2001, p. 17, 2006) and De Wet (2006b) believed that involuntary resettlement impoverishes people, in part because it takes away their power to make decisions about where and how they are to live, the conditions under which they are to have access to and use productive resources, and the autonomy they are to exercise over the running and reproduction of their own socio-political institutions (Koenig, 2006; De Wet, 2006b).

Koenig (2006) further argued that most resettlement programs have not worked as well as they could have because they have focused on the economic aspects of resettlement, while neglecting the political, and that social disarticulation can worsen powerlessness, dependency and vulnerability. This is essentially impoverishing those who already have the fewest economic and political resources. Those with more political resources are often in a better position to resist displacement and negotiate adequate compensation. As suggested by Koenig (2006, p. 120) and De Wet (2006b, p. 183), most often the end result of displacement is that rich farmers, people with more power become the ‘haves’ at the expense of the ‘have-nots’, who through the process become even more deprived,

landless, jobless, homeless, poor, vulnerable to increased morbidity and mortality, socially disoriented, and politically powerless.

For many years, those studying the effects of resettlement have looked for ways to improve future initiatives (Scudder & Colson 1982; Hansen & Oliver-Smith, 1982, cited in De Wet, 2006a; Bartolome, De Wet, Mander & Nagaraj, 2000; Cernea, 2000). Most academics and practitioners argued that for a resettlement program to be successful, it is necessary to get the 'right inputs', which De Wet (2006a, p. 1) refers to as having sound legal and policy frameworks, sufficient political will, necessary financial and administrative capacity, all of which are important and instrumental, to improve resettlement outcomes. However, despite the presence of the above mentioned aspects, displacement and resettlement continue to be problematic in many countries (Koenig, 2006; De Wet, 2006a). Displacement involves a long, complex process of human interactions, varying from case to case depending on its own economy, ecology, and socio-cultural disruptions (De Wet, 2006a).

Many resettlement scholars, including Gutman (1994) and Bartolome et al. (2000) amongst others suggested that one of the problems associated with development-induced displacement and resettlement is the lack of engagement of the affected population in the resettlement mitigation process. Despite the development of the resettlement action plan (RAP) as an instrument to mitigate displacement and resettlement impact, the lack of sufficient resettlement planning depended largely on inadequate experiences in resettlement issues and the lack of project affected people's participation (Bartolome et al., 2000). Consequently, a number of resettlement programs that previously attempted to restore the displaced to their former economic and social conditions have proved ineffective (Gutman, 1994; Bartolome et al., 2000).

In addition, Koenig (2006) and Oliver-Smith (2006) both argued that resettlement planners fail to recognize the inherent complexity of the pre-resettlement social and economic systems. They are trying to plan and provide for in the post-resettlement situation (Koenig, 2006; Oliver-Smith, 2006). Planners cannot take all the relevant

factors into account, let alone deal with the unexpected developments. Too often, planners simplify complexity down to manageable dimensions – deciding beforehand which social factors are important – motivated by outsiders' conceptions of resettlement and land use (Koenig, 2006; Oliver-Smith, 2006).

Koenig (2006), Oliver-Smith (2006) and De Wet (2006b) further suggested that the failure to take the complexity of social systems into account is directly related to the fact that insufficient attention has been paid to the political aspects of development-induced displacement and resettlement. In situations where social, spatial, economic and political relations are intimately intertwined, where resources have multiple uses and meanings, and where livelihoods are multi-stranded, complexity is not simply an aesthetic or intellectual value – it is the key to socio-economic viability and sustainability (Koenig, 2006, p. 117). Local complexity has to be properly articulated, understood and taken into account when developing such development plans or programs (Koenig, 2006; Oliver-Smith, 2006; De Wet, 2006a, 2006b).

The absence of attention to political aspects and the lack of consideration of the distribution of societal power in resettlement thinking, as argued by Koenig (2006), Oliver-Smith (2006) and De Wet (2006b), have also led to the failure to address the range and impacts of conflicts of interest. In most DIDR literature, there has been some discussion about the divergent interests between national authorities and displaced people. Koenig (2006), Oliver-Smith (2006) and De Wet (2006b) suggested that the divergence between two parties can be illustrated by the approach to common property and open-access resource. Common property exists when groups can grant use rights to some and restrict or exclude others, while open-access resources allow utilization to anyone who can get to the resource which may lead to resource competition (Berkes & Farva, 1989). Centralizing governments have often turned locally managed common property into open-access resources, politicizing the reconstitution of common property resources (Koenig, 2006).

While the conflict of interest between national authorities and the resettled people may have been taken into account to some extent, both Pandey (1998) and Koenig (2006) argued that the divergent interests between those displaced and others affected but not physically displaced, such as the hosts, have not been adequately addressed. Essentially, the interests of the hosts may conflict with those of resettlers due to competition over natural resources, common property and social services (Koenig & Diarra, 1998, cited in Koenig, 2006, p. 119; Pandey, 1998, p. 90). To the hosts, displaced people might seem prosperous because of the cash compensation or new infrastructure they have received (Pandey, 1998, p. 90), while the displaced often realize that this cash cannot replace lost natural assets. Host communities still have those intact and are therefore advantaged compared to resettled communities. Oliver-Smith (2006) further argued that what is most neglected is the internal political life of displaced groups and the potential conflicts of interest among them. Even when groups seem relatively homogeneous to outsiders, affected individuals may have different needs and interests and that individuals may use the opportunity to advance specific agendas (Oliver-Smith, 2006). Clearly, DIDR remains challenging in a development context because there has been a lack of understanding of the conflicts of interest and political issues within resettled groups, as well as those between the resettled and the more powerful.

2.5 Summary

This chapter has provided a brief review of literature concerning displacement and resettlement. Conventional approaches to the prevention and mitigation of impoverishment risks such as compensation, resettlement and rehabilitation were then explored. Experiences in the past have indicated that compensation payments (either in cash or in kind) for the land and property losses have failed to alleviate the impoverishment risks associated with resettlement, let alone to re-establish the livelihoods of the affected people. However, it was also suggested that the outcomes of resettlement for displaced people could be improved if resettlement was treated as an opportunity for development.

The concept of rehabilitation, also known as resettlement with the goal of sustainable development, has increasingly been recognized as valuable; hence, it should also be an integral part of the resettlement scheme to ensure that livelihoods and social systems are restored, and that affected peoples and their offspring are substantially improved as a result of the project. Literature suggests that this objective could be achieved by investing in rebuilding and expanding the four capitals during displacement and resettlement. Encompassed in this rehabilitation goal is the expectation that the constitution of the livelihood capital assets and resources will provide the affected people the capabilities to develop; hence, the affected people will be economically better off, live in socially stable and institutionally functional communities, in a sustainable manner.

The last section of this chapter discussed several key development perspectives and concerns within the contemporary resettlement debate including the issue of development and the protection of basic human rights of the displaced people, who do not seem to enjoy equal rights when they are forced to leave their home land, and most of the time suffer from socio-economic impoverishment, for the sake of national economic development. More importantly, concerns have been raised around the subject of inadequate engagement of the local population in the resettlement process, as well as the issue of inherent complexity of the local social and economic systems. Failure to recognize the importance of local participation and understand local complexity will pose a major challenge to successfully address resettlement problems. In addition, the absence of attention to political aspects and the lack of consideration of the distribution of societal power in resettlement thinking have also led to the failure to address the range and impacts of conflict of interests between resettlement authorities and resettled people, and/or among different groups of affected people – which in turn poses a major constraint to dealing with resettlement problems effectively.

CHAPTER THREE

SUSTAINABLE LIVELIHOOD APPROACH TO RESETTLEMENT AND LIVELIHOOD RECONSTRUCTION

3.1 Introduction

In the previous chapter, conventional approaches to the prevention and mitigation of impoverishment risks were introduced. Experiences in the past indicated that compensation payments (either in cash or in kind) for land and property losses have failed to alleviate the impoverishment risks associated with resettlement. However, it was also suggested that the outcomes of resettlement for displaced people could be improved if resettlement was treated as an opportunity for development. The concept of rehabilitation, also known as resettlement with the goal of sustainable development, has increasingly been recognized amongst resettlement practitioners as valuable; hence, it should be an integral part of the resettlement scheme to ensure that livelihoods and social systems are restored, and that affected peoples and their offspring are substantially better off as a result of the project.

This chapter provides an analysis of the sustainable livelihood concept and its application to resettlement and livelihood reconstruction. The chapter starts by firstly exploring how sustainable livelihood has emerged as an approach to address poverty reduction and sustainable development (Section 3.2). Drawing on the Sustainable Livelihood Approach (SLA) adopted by the UK Department for International Development (DFID), Section 3.3 will examine some of the key principles and various components that constitute livelihoods. Their value to the research analysis and some of the methodological or practical difficulties will also be highlighted in this section. The last section (Section 3.4) will then justify the adoption of the SLA to the resettlement and livelihood reconstruction research analysis.

3.2 The Emergence of a Sustainable Livelihood Approach (SLA)

By the end of the twentieth century, international development assistance was increasingly being directed towards an agenda for poverty reduction and sustainable development, as expressed in the Millennium Development Goals (MDGs) that seek to halve extreme poverty and increase well-being globally by 2015 (United Nations, 2006).

Supporting these ambitions, a range of tools and strategies has been developed and adopted by development agencies and national governments for designing development interventions, including sustainable livelihoods approaches. The sustainable livelihoods concept was first introduced by the Brundtland Commission on Environment and Development as a way of linking socioeconomic and ecological considerations in a cohesive, policy-relevant structure (Krantz, 2001; Brocklesby & Fisher, 2003). The 1992 United Nations Conference on Environment and Development (UNCED) expanded the concept and advocated for the achievement of sustainable livelihood as a broad goal for poverty eradication (Singh & Gilman, 1999; UNDP, 1997, cited in Krantz, 2001). It stated that sustainable livelihoods could serve as “an integrating factor that allows policies to address development, sustainable resource management, and poverty eradication simultaneously” (Singh & Gilman, 1999, p. 2). The forum was important for moving international concern with environmental issues towards a focus on people and their livelihood activities, and placing these concerns within a policy framework for sustainable development (Krantz, 2001; Brocklesby & Fisher, 2003).

The idea of sustainable livelihoods has since then consolidated into an approach, or a number of very similar approaches, designed, developed and or implemented by many different development agencies across sectors. These include intergovernmental organizations (such as the United Nations Development Program - UNDP, the Food and Agriculture Organization - FAO, the International Fund for Agriculture Development, the World Bank - WB, the World Food Program - WFP), bilateral donors (such as the UK Department for International Development - DFID, the New Zealand Agency for International Development - NZAID⁷, the Swedish International Development Cooperation Agency – SIDA), non-governmental organizations or NGOs (such as Development Alternatives in India, CARE International, Oxfam), and research institutes (such as the Institute of Development Studies in Sussex - IDS, and the Overseas

⁷ NZAID is currently labelled as the New Zealand Aid Programme, which is the New Zealand Government’s international aid and development programme managed by the Ministry of Foreign Affairs and Trade (NZAID, 2012).

Development Institute in London - ODI) (Scoones, 1998; Carney, Drinkwater, Rusinow, Neefjes, Wanmali & Singh, 1999; Farrington, Carney, Ashley, & Turton, 1999; Hussein, 2002; NZAID, 2006).

According to Chambers and Conway (1992), Scoones (1998), Carney (1999), Singh and Gilman (1999), Krantz (2001), and Hussein (2002), amongst other livelihood authors, the sustainable livelihood approach was an attempt to go beyond the conventional definitions and approaches to poverty eradication. Conventional approaches had been found to be too narrow to address poverty because they focused only on certain aspects or manifestations of poverty, such as low income and economic marginalization. The sustainable livelihood concept assists in improving an understanding of the multi-dimensional nature of poverty (beyond economic marginalization) and to consider other vital aspects of poverty, such as vulnerability and social exclusion. It is now recognized that more attention must be paid to the various factors and processes which either constrain or enable poor people's ability to make a living in an economically, ecologically, and socially sustainable manner. The sustainable livelihoods concept offers the prospects of a more coherent and integrated approach to poverty.

From the donor community's perspective, a sustainable livelihoods approach acts as an operational tool to assist work on poverty reduction (Alterelli & Carloni, 2000). These agencies seek to bring together the lessons of best practice in development with a set of guiding principles supported by an analytical framework, which acts as a tool to analyse issues and target interventions (Farrington et al., 1999). The approach helps bring together different perspectives on poverty and integrate the contributions of different skills and sectors can make towards eliminating that poverty, for instance, in designing projects and programs, sector analysis and monitoring (Farrington et al., 1999). Carney (2003) also provided practical examples where sustainable livelihood thinking has been applied in many development-related scenarios, including national-level planning, country program preparation, the development of large-scale poverty reduction strategies, poverty assessments, institutional and policies process analysis, responding

to an emergency, and a wide range of research projects, amongst others. The guiding principles are common to the different organizations that work with a sustainable livelihoods approach, although frameworks and methods differ (Carney et al., 1999). While it is beyond the scope of this study to discuss fully the Sustainable Livelihood Framework (SLF) adopted by various organizations, for the purpose of this research, the DFID approach to sustainable livelihood, which perhaps is the most influential approach that has been widely adopted, will be explored in more detail in a later section.

So what is or does constitute a sustainable livelihood? The term 'sustainable livelihood' relates to a wide set of issues which encompass much of the broader debate about the relationships between poverty and environment. Yet in the available literature, there is often little clarity about how contradictions are addressed and trade-offs are assessed. As Carswell (1997, p. 10) pointed out: "definitions of sustainable livelihoods are often unclear, inconsistent and relatively narrow. Without clarification, there is a risk of simply adding to a conceptual muddle." Although some organizations have tailored their own definitions, many draw on a concept of livelihood as 'the means of gaining a living, including livelihood capabilities, tangible assets and intangible assets' (Chambers & Conway, 1992, p. 9). In addition to this is a sustainability element: "a livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base" (Scoones, 1998, p.5).

Of the various components of a livelihood, Krantz (2001) suggested the most complex is the portfolio of assets out of which people construct their living. This portfolio includes tangible assets such as stores (for instance, good stocks, and stores of value such as gold, jewellery, and cash savings) and resources (including land, water, trees, livestock, farm equipment), as well as intangible assets such as claims (for example, demands and appeals which can be made for materials, moral or other practical support) and access (which is the opportunity to use a resource, and service or to obtain information, material, technology, employment, food or income) (Chambers & Conway, 1992).

Krantz (2001) suggested in this context that the inclusion of social aspects to livelihood sustainability is essential. He further pointed out a distinction between environmental sustainability and social sustainability. Krantz (2001) referred to environmental sustainability as the external impact of a livelihood on other livelihoods – meaning its effects on local and global resources and other assets. In contrast, social sustainability, which concerns the internal capacity of a livelihood to withstand outside pressure, is the ability of a livelihood to cope with stress and shocks and retain its ability to continue and improve over time (Krantz, 2001). Stresses are defined as pressures which are typically continuous and cumulative and therefore to some extent predictable, such as seasonal shortages, rising populations or declining resources, while shocks are impacts which are typically sudden, unpredictable and traumatic, such as fires, floods and epidemics (Chambers & Conway 1992). Any definition of livelihood sustainability, Krantz (2001) and several authors have argued, therefore has to include the ability to avoid or to withstand and recover from, such stresses and shocks (Chambers & Conway 1992; Scoones, 1998; Ashley & Carney, 1999; Brock, 1999; Carney, 1999).

3.3 DFID Sustainable Livelihood Framework (SLF)

The formal adoption of a livelihood approach within the UK Department for International Development (DFID) resulted from the publication of the 1997 UK Government White Paper on International Development (Hussein, 2002; Brocklesby & Fisher, 2003; Carney, 2003), where it was asserted that the elimination of poverty in poorer countries was the overarching aim of DFID and the promotion of sustainable livelihood was one means of reaching that goal (DFID, 1999; Hussein, 2002). One of the three specific objectives designed to achieve this aim is a commitment to ‘policies and actions which promote sustainable livelihoods’ (Carney et al., 1999). Similarly to other organizations, the DFID definition of sustainable livelihood follows the one developed by IDS, which in turn is a modified version of the original definition elaborated by Chambers and Conway (1992) noted above as:

A livelihood comprises the capabilities, assets (including both material and social resources), and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.

(Scoones, 1998, p. 5)

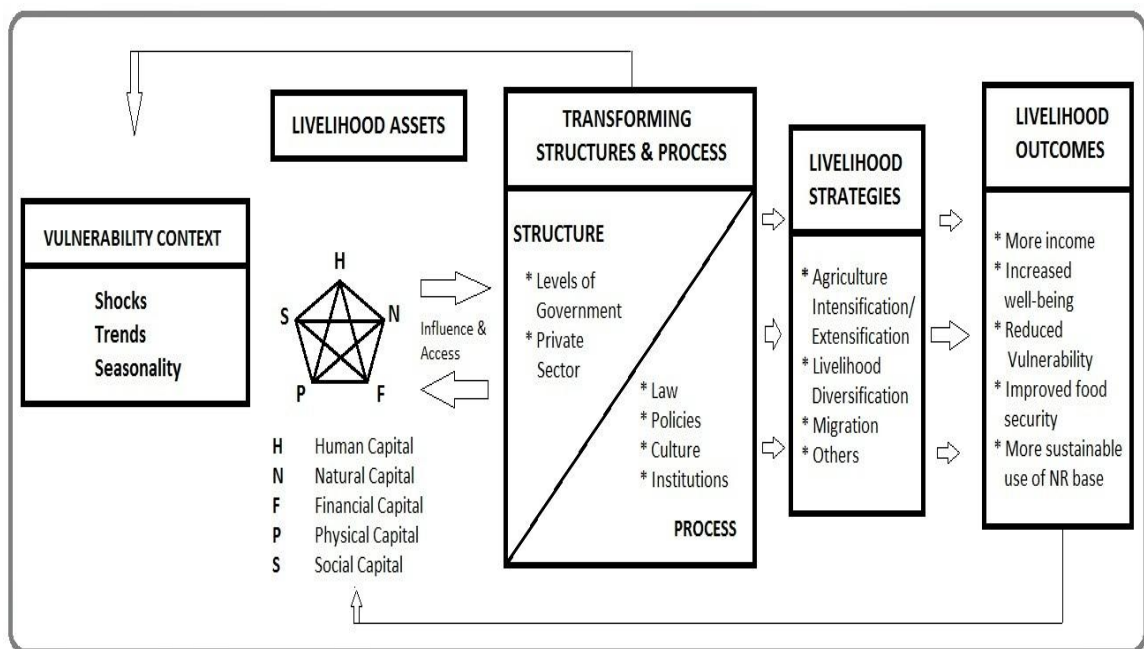
The objective of DFID's sustainable livelihood approach is to increase the agency's effectiveness in poverty reduction by seeking to mainstream a set of core principles and a holistic perspective in the programming of support activities to ensure that these correspond to issues or areas of direct relevance for improving poor people's livelihoods (Carney et al., 1999). DFID places considerable emphasis on the sustainable livelihood core principles, which are held to encapsulate the best development practice of numerous individuals and agencies over decades (Carney et al., 1999). The core principles underpinning the approach adopted by DFID are listed below:

- **People-centred:** sustainable poverty elimination will be achieved only if external support focuses on what matters to people, understands the difference between groups of people, and works with them in a way that is congruent with their current livelihood strategies, social environment, and ability to adapt.
- **Responsive and Participatory:** poor people themselves must be key actors in identifying and addressing livelihood priorities. Outsiders need processes that enable them to listen and respond to the poor.
- **Multi-level:** poverty elimination is an enormous challenge that will only be overcome by working at multiple levels, ensuring that micro-level activity informs the development of policy and an effective enabling environment, and that macro-level structures and processes support people to build upon their own strengths.
- **Conducted in Partnership:** with both the public and the private sector.
- **Sustainable:** there are four key dimensions to sustainability – economic, institutional, social and environmental sustainability. All are important – a balance must be found between them.
- **Dynamic:** external support must recognize the dynamic nature of livelihood strategies, respond flexibly to changes in people's situation, and develop longer term commitments.

Source: Ashley and Carney (1999, p. 7)

Central to these principles is the Sustainable Livelihood Framework (Carney, 2003). According to DFID (1999), the framework is not intended to represent reality in any specific setting. It is, rather, intended to provide an analytical structure to facilitate a broad and systematic understanding of the various factors that constrain or enable or enhance livelihood opportunities, and to show how they relate to each other.

Figure 3.1: DFID Sustainable Livelihood Framework



Source: DFID Sustainable Livelihood Framework, 1999, p. 1

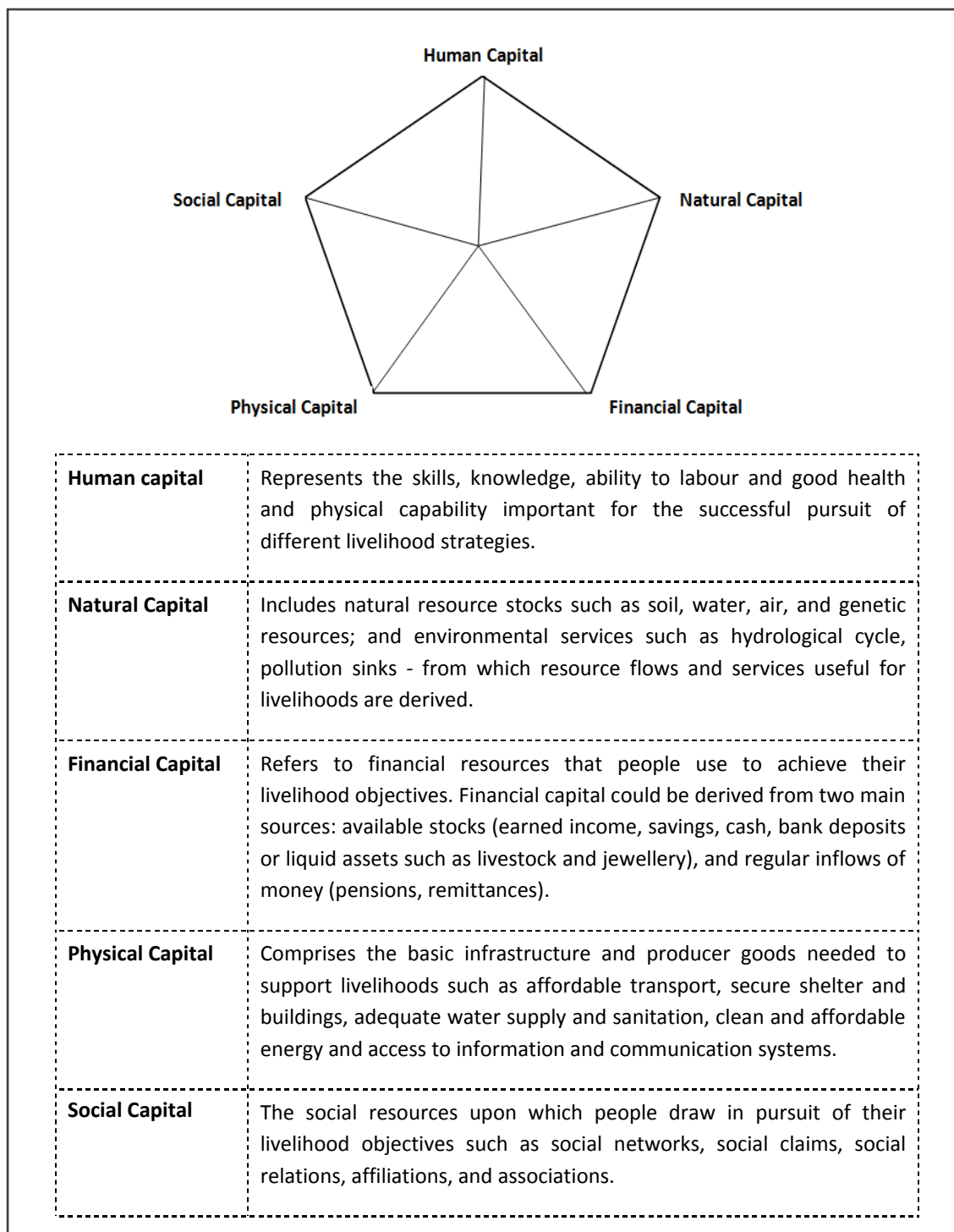
The DFID Sustainable Livelihood Framework highlights a number of key components to livelihood (see Figure 3.1 above). First, people are conceived of living within a vulnerability context – the external environment in which they are exposed to risks, through sudden shocks (for example, natural disasters, outbreak of diseases, financial crisis, conflicts or wars), trends over time (such as population growth, market trends, technology transfers) and seasonal change (for instance, production and employment opportunities) (DFID, 1999). While not all the trends are negative and cause vulnerability (such as new technologies that can improve productivity and may be valuable to the poor people), the term ‘vulnerability context’ draws attention to the fact that this complex of external influences is directly or indirectly responsible for many of

the hardships faced by the poorest people in the world (DFID, 1999). These external factors are considered important because they have a direct impact upon people's asset status and the options that are open to them in pursuit of positive livelihood outcomes.

Second, people have a number of capital assets, which they build or draw upon to make their livelihoods. These include social capital (social networks and relationships of trust), natural capital (natural resource stocks), financial capital (savings, income, and credit), physical capital (transport, shelter, water, energy, communications) and human capital (skills, knowledge, labour). These five capital assets are put together to form an 'asset pentagon', which is used to highlight their interconnections and the fact that livelihoods depend on a combination of assets or resources of various kinds (see Figure 3.2 below). DFID (1999) further suggested that, these assets constitute livelihood building blocks. To a certain extent, these capitals can be combined, substituted for each other, and switched – one type of livelihood capitals or resources can be an essential precursor for gaining access to others. People, for example, may use financial capital such as savings and income to invest in education to obtain or enhance their human capital. People may also draw on social capital such as family or neighbourhood security mechanisms at times when financial capital is in short supply.

Third, within this context, these assets are drawn on within people's livelihood strategies. For instance, people can pursue multiple choices and activities through which they seek to generate a living or maximize their achievement of positive livelihood outcomes. Livelihood outcomes will not be simply just monetary, economic benefits, or even tangible in all cases. They may include, for instance, a sense of being empowered to make wider, or clearer, choices (DFID, 1999). Livelihood strategies may consist of combinations of activities which Scoones (1998, p. 9) called "livelihood portfolios". Different livelihood portfolios may also then be pursued over seasons and between years as well as over longer periods, such as between generations, and will depend on variation in options, the stage at which the household is in its domestic cycle, or on more fundamental changes in local and external conditions (DFID, 1999).

Figure 3.2: Livelihood Asset Pentagon



Source: DFID Sustainable Livelihood Framework, 1999, p. 5

And finally, institutional processes and organizational structures are held to influence people's access to assets and shape livelihood activities, as well as the vulnerability

context in which they live (Scoones, 1998; DFID, 1999). Scoones (1998) referred to 'institutions' as regularized practices (or patterns of behaviour) structured by rules and norms of society which have persistent and widespread use. Institutions might be either formal or informal, are often ambiguous, and are frequently imbued with power. Such institutions, directly or indirectly, mediate access to livelihood resources which in turn affect livelihood strategy options and, eventually, the scope for sustainable livelihood outcomes (Scoones, 1998). Therefore, an understanding of these institutions, their underlying social relationships and power dynamics embedded in these, is essential and an important subject for investigation (Scoones, 1998).

3.3.1 Value of the Sustainable Livelihood Approach to Research Analysis

The rationale for adopting such a framework, as expressed by DFID, is that:

It encourages users to take a broad and systematic view of the factors that cause poverty – whether these are shocks and adverse trends, poorly functioning institutions and policies, or a basic lack of assets – and to investigate the relations between them.

(Majale, 2002, p.4)

The sustainable livelihood approach shows the variety of activities that people carry out, often in combination, to making a living. Indeed, as several authors have pointed out, this is important in the case of the poor, whose livelihoods often depend on a number of different types of economic activities, and where it is a combined effect for the household economy concerned (Chambers, 1995; Hussein & Nelson, 1998). Sectoral approaches which tend to pre-determine which area of economic activity people should focus on, for example, forestry or fisheries, might lead to only one aspect of people's livelihoods being addressed, and not necessarily the aspect that is most relevant to the poor (Krantz, 2001). The framework, however, does not take a single sectoral view of poverty, and instead tries to reconcile the contribution made by all the sectors to building up the stocks of assets upon which people draw to sustain their livelihoods (DFID, 1999). The aim is to do away with pre-conceptions about what exactly people

seek and how they are most likely to achieve their goals and to develop an accurate and dynamic picture of how different groups of people operate within their environment (DFID, 1999).

The framework also highlights the inter-relationships between key elements governing people's livelihoods (DFID, 1999). 'Transforming structures and processes' – which are now referred to as 'policies, institutions and processes' – influence the extent to which people can endure and recover from external shocks and macroeconomic trends (Scoones, 1998; DFID, 1999), and mediate people's access to assets and their ability to form livelihood strategies (such as social relations, participation, authority, policies, public service delivery, institutions and organizations) (Hussein, 2002). This is considered to be a more appropriate way of describing the complex range of issues related to the governance environment in which livelihoods are constructed (Hobley, 2001).

In addition, by drawing attention to the multiplicity of assets that people make use of when constructing their livelihoods, the sustainable livelihood approach produces a more holistic view of what resources, or combination of resources, are important to the poor (DFID, 1999; Krantz, 2001; Hussein, 2002; Carney, 2003). These resources are not only physical and natural resources which are traditionally considered important to livelihoods of the poor, but may also include social and human capital. This is aligned with findings from a number of participatory poverty assessments which show that poverty is a much more complex phenomenon than just low incomes or insufficient food production (Holland & Blackburn, 1998). The framework also facilitates an understanding of the underlying causes of poverty by focusing on the variety of factors, at different levels, that directly or indirectly determine or constrain poor people's access to resources or assets of different kinds, and thus their livelihoods (Scoones, 1998; Krantz, 2001; Hussein, 2002; Carney, 2003). Such constraints may arise from formal and informal institutional and social factors at the local level, or they may be the outcome of overriding policies, economic processes, and legislative frameworks at the macro level (Scoones, 1998; Krantz, 2001).

By emphasizing the way in which people develop their livelihood strategies (such as coping and adapting strategies) to achieve certain outcomes in response to a particular vulnerability context, Krantz (2001) argued that the sustainable livelihood approach also makes it possible to see how even the 'poorest of the poor' are active decision-makers, not passive victims, in shaping their own livelihoods. This is supported by Neely, Sutherland and Johnson (2004) who suggested that within the rural sustainable livelihood perspective, local contexts were better understood and the poor, and the marginalized people were often engaged in plans and decisions (Neely et al., 2004). This is important for designing support activities that build on the strengths of the poor. Furthermore, it allows for a greater dynamic perspective on livelihoods, since people's strengths may change over time as their strategies change in response to either personal or external circumstances (Krantz, 2001; Hussein, 2002; Carney, 2003). The sustainable livelihood approach facilitates an understanding of the linkages between people's livelihood strategies, their asset status, and their way of using available natural resources, and is therefore a useful approach for understanding both the problem and the scope for promoting sustainable development at the local level.

Although it might be possible to identify the various dimensions and elements of what constitutes sustainable livelihoods in theory, it is considerably more challenging and difficult to determine what the critical factors or constraints are in practice (Krantz, 2001; Hussein, 2002; Carney, 2003). This is partly because each situation is unique and therefore requires its own context-specific analysis, and partly because what constitutes a satisfactory or inadequate livelihood is subjective. It is therefore essential that sustainable livelihood analyses fully involve the local people to let their knowledge, perceptions and interests be heard, a practice which is recognised by most analysts using this concept (Krantz, 2001).

3.3.2 Emerging issues of the Sustainable Livelihood Approach

Amongst others, one of the recurrent criticisms of livelihood approaches is that there is a lack of attention to political aspects and power issues (Krantz, 2001; Hussein, 2002;

Scoones, 2009). However, this is not strictly true. Several attempts to engage politics and power relations have been manifested in a number of works elaborating in variants of different frameworks such as ‘transforming structures and process’, ‘policies, institutions and processes’, ‘mediating institutions and organisations’, ‘sustainable livelihoods governance’ or ‘drivers of change’ (Davies & Hossain, 1987; Hobley & Shields, 2000; Hoon & Hyden, 2003; DFID, 2004), where Scoones (2009) suggested that these reflections have addressed the social and political structures and processes that influence livelihood choices and outcomes. Power, politics and social difference – and the governance implications of these – have been central to these concerns (Scoones & Wolmer, 2003). Unfortunately, though, such debates remained at the margins. While different people made the case for the importance of such political dimensions, dominant concerns were elsewhere – largely tending to be on the more easily detectable and formal aspects of such transforming process, (such as organisations, policies, and legislation), and how these impinge upon livelihood opportunities of the poor, presumably because they are easier to influence through external donor support (Scoones, 2009).

In DFID’s sustainable livelihood framework, power relations are included as one aspect of ‘transforming processes’, closely linked to ‘culture’ and ‘institutions’. According to Krantz (2001), it is a dimension of intra-community relations to be examined together with other authority patterns when undertaking social analysis of particular localities. The sustainable livelihood approach adopted by DFID puts great emphasis on transforming the structures and processes that have the capacity to ‘transform’ livelihoods, in ways which provide better opportunities for the poor (DFID, 1999). However the process is complicated because informal structures of social dominance and power within communities influence people’s access to resources and livelihood opportunities (Krantz, 2001). And these inequities are often invisible to outsiders. Mosse (1995) argued that a participatory approach is not a suitable method in this context because it is inevitably a ‘public event’ where people are usually reluctant to discuss sensitive matters such as power and influence within their own community.

In addition to the livelihood approach not giving enough attention to power and politics, and the failure to link livelihoods and governance debates in development, Scoones (2009) also identified other recurrent failings of livelihood perspectives. One could be the lack of engagement with processes of economic globalisation, where livelihoods approaches were often dismissed as too complex and so not compatible with real-world challenges and decision-making processes. Livelihood approaches, coming as they did from a complex disciplinary parentage that emphasized the local, have not been very good at dealing with big shifts in the state of global markets and politics (Scoones, 2009). The other could be the lack of rigorous attempts to deal with long-term secular change in environment conditions (such as climate change). In livelihoods discourse 'sustainability' tended to refer to coping with immediate shocks and stresses, where local capacities and knowledge, if effectively supported, might be enough. However, this is not adequate. A central future challenge must be integrating livelihoods thinking and understandings of local contexts and responses with concerns for global environmental change (Scoones, 2009).

Moreover, Krantz (2001), Hussein (2002) and Carney (2003) suggested a number of methodological and practical difficulties when applying a Sustainable Livelihood Framework (SLF), particularly by DFID (1999). The adoption of SLF in livelihood studies could be very time consuming as project staff or consultants are required to spend considerable time in the locality to understand the local situation, and facilitate different kinds of participatory studies and assessments – making it unsuitable for agencies seeking to reach the poor in hundreds of communities at the same time – hence, it is cost inefficient. In addition, a sustainable livelihood approach tends to take the household as the basic unit of analysis – not paying sufficient attention to how different categories of households relate to different types of assets, to the vulnerability context, to markets, and organizations (Krantz, 2001; Hussein, 2002; Carney, 2003). There is also a risk that intra-household inequalities in economic control, interests, opportunities, and decision-making power, which often have gender as a bias, are not given sufficient attention. Women thus might figure among the poor only when they are

heads of households, and not when they are vulnerable, socially and economically subordinate members of prosperous households. DFID recognized that it is not sufficient to just take the household as the sole unit of analysis, but that there is need for disaggregation into men, women, and different demographics (DFID, 1999).

3.4 Sustainable Livelihood Approach to Resettlement and Livelihood Reconstruction

Despite a number of issues or challenges related to a sustainable livelihood approach in development research and studies as raised by many authors in the previous section, the adoption of such an approach remains widespread amongst researchers and development practitioners. This is due to their substantial value to research analysis. The utilisation of the DFID Sustainable Livelihood Framework, in particular, has been seen as important in understanding and analysing the livelihoods of the poor in order to improve the effectiveness of livelihoods-related development assistance (DFID, 1999; NZAID, 2006).

As pointed out above, adopting a sustainable livelihood approach encourages users to take a broad and systematic view of the factors that either cause poverty, determine or constraint people's livelihoods, and to investigate the relations between them. These qualities could potentially offer an important basis to resettlement and livelihood reconstruction research and analysis. A sustainable livelihood approach could offer a better understanding of the nature of impoverishment caused by development-induced displacement by focusing on the variety of factors, at different levels, that directly or indirectly determine or constrain resettled people's access to resources of different kinds, and thus their livelihoods.

Throughout the resettlement process, people's livelihoods have often been interrupted by the fact that they have to be physically relocated in a new environment. The framework could allow for examination of the complex components and processes involved in creating a livelihood, and aims to assess asset status and contextual issues

throughout the resettlement and livelihood reconstruction process in order to identify the livelihood activities that will most likely lead to successful livelihood generation. Therefore, for the success of this research, the sustainable livelihood approach will be adopted in the resettlement and livelihood reconstruction analysis.

3.5 Summary

This chapter has offered an analysis of the sustainable livelihood thinking on resettlement and livelihood reconstruction. The chapter began by firstly exploring how the sustainable livelihood has emerged as an approach to address poverty reduction and sustainable development, and later the concept has been increasingly adopted by various development agencies across sectors. Drawing on the Sustainable Livelihood Approach adopted by the UK Department for International Development (DFID), key principles and components that constitute livelihoods were highlighted including vulnerability contexts, livelihood capital assets, livelihood strategies, and institutional processes and organizational structures which are held to influence people's access to assets and shape their livelihood activities.

Despite a number of methodological and practical issues, the adoption of the sustainable livelihood approach has been regarded as important amongst researchers and development practitioners. The utilisation of the approach enhances the understanding and analysis of the livelihoods of the poor, and improves the effectiveness of livelihoods-related development assistance. Employing a sustainable livelihood approach enables users to take a broad and systematic view of the factors that either cause poverty or determine or constrain people's livelihoods, and to investigate the relations between them. More importantly, the sustainable livelihood approach could potentially offer an important basis to resettlement and livelihood reconstruction research and analysis.

CHAPTER FOUR

METHODOLOGY AND RESEARCH METHODS

4.1 Introduction

Thus far, perspectives on development-induced displacement and resettlement (DIDR), along with approaches to mitigate impoverishment risks associated with resettlement have been explored, and an approach to resettlement and livelihood reconstruction based on sustainable livelihood thinking has been discussed. Moving forward, this chapter will focus on fieldwork preparation, as well as the methods and methodological considerations that were applied in this research. In-depth semi-structured interviews, field walks and observations, informal conversational interviews, and secondary materials have been utilized in the process of gathering data, with the aim of examining the potential contribution of the Nakai livelihood restoration programs to address livelihood sustainability of the project affected community.

This chapter begins with a description of the processes involved in fieldwork preparation (Section 4.2), a discussion of ethical issues, and an explanation of the process required for entering the study site. The process of data collection (Section 4.3) will also be covered as well as the rationale for the type of methods adopted, followed by specific considerations addressed in undertaking the fieldwork with special focus on practical issues (Section 4.4) and constraints of the research (Section 4.5). Lastly, a summary will be provided in Section 4.6.

4.2 Research Preparation

4.2.1 Fieldwork Preparation

To enable a smooth, effective and successful data collection process, it is essential to prepare well for the fieldwork. Fieldwork preparation allows a clear direction and deeper understanding about the process of the research: what to do, where to go, and whom to choose as guides or companions. Eventually, this practice will lead to achieving a positive outcome in research (Leslie & Storey, 2003). Robson, Willis and Elmhirst (1997) and Nash (2000) also strongly support the idea as they suggested that by having sufficient and appropriate preparation for fieldwork is not only a crucial element in

facilitating a positive experience in the field, but also a major influence on the ultimate success of a research project.

As far as the preparation for this research project is concerned, I initially had discussions with experienced researchers including my former colleagues from the World Bank, and staff of the Development Studies Programme at Massey University to broaden my understanding of some of the issues in relation to my topic. In addition, I drafted a broad literature review, drawing on a variety of relevant academic sources to explore my topic of interest more extensively. Doing so helped me develop a more comprehensive understanding of my own area of study. The review of literature provides a sense of the previous work done in the area of research and helps the researcher identify the current trends, the contemporary debates and the gaps in the knowledge base, as well as the conceptual frameworks used previously to inform and examine the problem within the area of research (DePoy & Gitlin, 2011). Additionally, the review of literature and the conceptual frameworks assisted me in the construction of appropriate research questions and the formulation of key interview questions used in the field, all of which were of benefit in deciding on a suitable methodology and approach to data analysis.

I also sought direction from the secondary materials I received from the social development officer and the focal contact person of the Nakai Resettlement and Livelihood Program, with the aim of gaining a solid base of general information on the actual program and my research site. Studying these materials allowed me to become familiar with the development history and the broad social context of my target villages and the people before my visit to the research site.

Moreover, I engaged in careful consideration of all relevant ethical issues before travelling to the research site. This included completing an in-house ethics document provided by Massey University's Development Studies Programme and submitting it to my supervisors Associate Professor Glenn Banks and Dr Maria Borovnik, as well as discussing ethical issues with them. I also read through the information and completed

the screening questionnaire supplied by the Massey University Human Ethics Committee. By following this procedure, I endeavoured to conduct my research with a morally sound and ethical approach.

4.2.2 Ethical Issues

The responsible researcher is considerate, does nothing to injure, harm or disturb the participants in research, keeps data collected on individuals and groups secure, accurately records information and reports the findings of the research in a public manner.

(Bouma & Ling, 2004, p. 203)

Ethical issues are regarded as an essential aspect when conducting a research project and as such, need to be considered attentively at every stage, from the inception of a research project through the write up of its results (Scheyvens & Nowak, 2003). Thus, this section provides further details on the ethical considerations mentioned above. First, the ethical issues which surfaced before and during the data collection process will be highlighted, followed by ethical considerations around the production of data.

Prior to commencing this study, I read and investigated the Massey University Human Ethics Committee's (MUHEC) document on ethical practices (such as Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants) and completed their screening questionnaire to determine the approval procedure. Based on my responses to the questions, my project was categorized as posing a low ethical risk and a Low Risk Notification (LRN) was approved by the MUHEC (see Appendix 1), on the grounds that it was judged to possess only minimal potential for harming research participants. In addition, I, as the researcher, had also acknowledged issues of confidentiality and informed consent, and participated in an in-house meeting of academic staff at the School of People, Environment and Planning for a formal internal ethics review of my research process. This comprised of myself, two of my supervisors and two other Development Studies staff members Professor Regina Scheyvens and Dr Rochelle Stewart-Withers. In the in-house meeting, a discussion of relevant ethical issues took place. I was asked questions regarding the consideration of locations to

conduct the interview that will provide comfort to research participants, and the use of other means or contacts to access participants with a wide range of demographics, economic status, and interests to have a cross sectoral perspective which I responded to fully, and was provided with valuable feedback in terms of ethical principles for conducting my research.

As a result of this thorough preparation, each time I conducted an interview in the field, I started by briefly introducing myself to all participants and offering information about my background, my work and my current status as a student. Additionally, I provided an Information Sheet, which is also worded in Lao language (*see Appendix 2*), to research participants to ensure they had a clear understanding about the purpose of my study. Essentially, before starting the interview, I also carefully explained all participants' rights as established by the Massey University Ethics Committee. These state that a research participant has a basic right to (i) decline to answer any particular question; (ii) withdraw from the study at any time; (iii) ask any questions about the study at any time during participation (iv) provide information on the understanding that his or her name will not be used unless permission is given to the researcher; (v) be given access to a summary of the project findings when it is concluded; and (vi) receive a copy of the research findings. By following these procedures, research participants felt at ease and comfortable about taking part in my research.

More importantly, permission to participate in the research was obtained before commencing their interview and the consent form (*see Appendix 4*) was signed by most participants after the interview. However, some participants, including those who were illiterate, preferred to agree verbally instead because this was more comfortable for them, and because they were somewhat afraid of the consequences of signing something in writing. In addition, I asked for permission to take notes, to use the digital voice recorder, and to take photos prior to conducting any form of data collection.

In addition to these ethical considerations, I also acknowledged that there are existing power inequalities that can be perceived by research participants between myself as a

researcher and them as researched persons. These differences include opportunities for accessing a better education, and differences in social and financial status. In order to avoid mishandling such issues, I was committed to carrying out the interviews in a respectful, polite, responsive, frank, sensitive, and well-behaved manner. I dressed appropriately (for instance, clean, business casual and occasionally traditional clothes) when interviewing village participants, government officials and project staff. Once I concluded all individual and group interviews, and the rest of the research process, I kept all the raw data, information, and findings in a secure place (for example, hard copies of the information were kept in a lockable suitcase, and electronic copies were kept in the password protected laptop). Back-up copies (electronic copies) were sent to my yahoo email account at the soonest opportunity once I had access to the internet.

I also reminded all research participants that all information I had collected would be used only for academic purposes, and would not be used to bring any harm to the participants. Their names have not been used unless permission was given. I also provided them with the names and contact details of my supervisors in case they had further enquiries or concerns about my research.

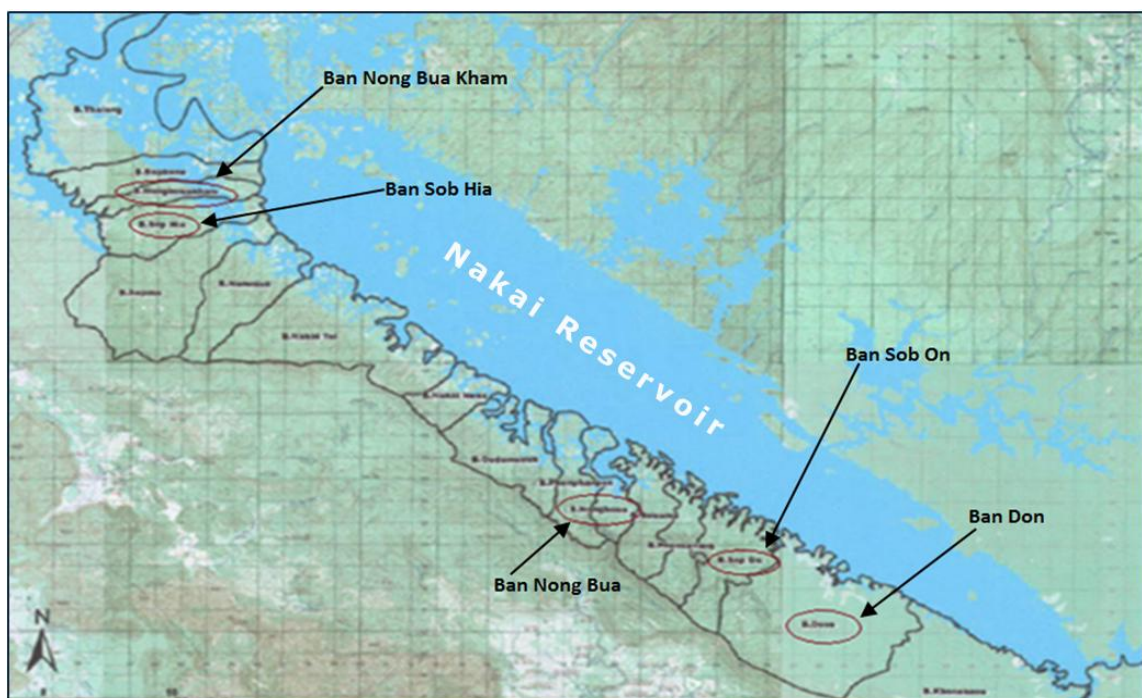
4.2.3 Process for Entering the Research Site

Research participants who have direct or indirect involvement in the NT2 project and hence were potential contributors to my research were sourced initially through contacts guided in reports and publications of the relevant organisations. However, to assist me in narrowing down the precise contacts relevant to my research topic, I approached Mr. Phandanouvong, a social development officer and the focal contact person on NT2 resettlement and livelihood program. On the basis of a short meeting and discussion about my research plan prior to the start of my field visit, Mr. Phandanouvong suggested an initial phone call should be made to the Head of the Resettlement Management Unit (RMU) and the Nakai Resettlement Manager from NTPC to briefly introduce myself as a student and researcher. This was followed by officially submitting the permission request letters (such as Information Sheet and

Support Letter from School Department – see Appendix 2 and 3 respectively) for conducting research to the Nakai District Governor Office as well as the RMU in order to notify them all of the purpose of my research and ask for their cooperation.

During my first few meetings with Mr. Soukkharath, the Manager of the RMU, and Mr. Frederik, the Nakai Resettlement Manager from NTPC, I was given general information about the actual resettlement program and the resettlement area which consists of sixteen villages. The briefing was also very helpful for me in terms of identifying any special attributes of each village, and selecting the target villages according to the criteria I had selected (such as size of population, family or financial conditions, occupations and livelihood activities). Of the sixteen resettlement villages, five villages were identified and selected as my target research sites based on their various population sizes, economic statuses, and income generating activities. These included one village close to the central of Nakai Plateau: Ban Nong Bua, two villages in the south of the plateau: Ban Don and Ban Sob On, and two villages in the north of the plateau: Ban Sob Hia and Ban Nong Bua Kham (see Figure 4.1 below – areas/villages circled).

Figure 4.1: Five Selected Resettlement Villages on Nakai Plateau



Source: NTPC, 2010, p. 17

With the assistance of Mr. Soukkharath, I was able to get in touch with Ms. Sivixay who then assisted me in coordinating meetings with heads of villagers of the respective target villages. There, I was informed that according to traditional protocol for accessing the villagers in the community, we were required to meet with the Chief of Village prior to meeting with the villagers. I have learnt that this practice is very important not only to show respect to the Chiefs of the Villages, but also to gain trust and cooperation from them to help me access the villagers. With the Chiefs' permission and support, I was able to contact other participants with a wide range of demographics and interests.

During the three weeks in the field, I stayed at a guesthouse in Oudomsouk village, which is also known as the city capital on the Nakai Plateau where most offices (for example, District Government Offices and NTPC Resettlement and Livelihood Offices) are located. Significantly this provided me with greater convenience of mobility and accessibility to these offices as well as to the five target villages, which usually took about 30 to 60 minutes (sometimes up to 90 minutes) travel time. On average, I had spent about three to four days in each village collecting data through formal interviews, field walks and observations, and informal conversations with the local villagers. I usually arrived at each village early in the morning, met with the Village Chiefs, and then took a long walk around the village to observe and familiarise myself with the research site, the infrastructure and other available facilities. I also took the occasion in the late morning or early afternoon to have short or informal conversations with the local villagers whom I met during the field walks, whom were often busy practicing livelihood activities close to home but were not able to participate fully in a formal interview. Many of my formal interviews, on the other hand, were conducted in the late afternoon when the local villagers returned home from their agricultural land or from collecting food in the forest and along the streams. With their permission and for their convenience, I sometimes had to follow them to their vegetable gardens or agricultural land, where they carry out their livelihood activities, in order to collect the information from them.

4.3 Data Collection Process

4.3.1 Quantitative and Qualitative Research Methods

A combination of qualitative and quantitative research methods was used for data collection in this research project. Quantitative research, on the one hand, as suggested by Newman and Benz (1998), is the systematic empirical investigation approach commonly employed for testing or verifying an existing theory or hypothesis – thus contributing to the scientific knowledge base. On the other hand, Bryman and Burgess (1999) stated that qualitative research is characterised by three factors: (a) the search for an understanding of the world through the behaviour patterns and thoughts of people, (b) the pursuit of information from natural situations, not experimental ones, and (c) the development of new theories instead of testing existing ones. Furthermore, as Bryman and Burgess (1999) pointed out, qualitative methods are typically regarded as more subjective than the apparently more objective gathering of statistical data.

It is vital that qualitative techniques be used to explore people's perspectives of the world around them so as to gain a better understanding of their behaviour (Henn, Weinsstein & Foard, 2006). Similarly, Brockington and Sullivan (2003) reported that the most obvious way to take advantage of the benefits of qualitative methodology is to explore the meaning of a people's world. Qualitative research is essential if we are to understand what makes the world meaningful for people, because it offers powerful techniques which can reveal a great deal on such topics (Brockington & Sullivan, 2003). These positive aspects of a qualitative approach to data collection and analysis can be appropriate and valuable for understanding people's behaviours and their attitudes towards the changes brought about by the NT2 project. Hence, it was adopted as the major approach to my research methodology.

While the qualitative study approach is essential, Brockington and Sullivan (2003), Chambers (2008), and Creswell (2009) suggested that a combination of qualitative approach with the quantitative technique could provide a more meaningful and powerful aide to development studies research. This is because the use of quantitative

measures and experimental designs provides description of trends, attitudes or opinions of a population by focusing on a sample of that population that can enhance and strengthen the validity to testing the hypotheses or answering your research questions (Newman & Benz, 1998; Chambers, 2008). That is to say the use of quantitative techniques in this study calls for a further observation of trends, attitudes or opinions of the NT2 project affected communities towards the changes that brought about by the project. This technique will allow for triangulation through seeking similar patterns in the data and grouping them into thematic findings, improving the reliability and validity of results. Therefore, the combination of the two qualitative and quantitative approaches can bring a more positive outcome to my research project.

4.3.2 Data Collection Techniques

In-depth semi-structured interviews, field walks and observations, informal conversational interviews and project document analysis are the main data collection techniques used in this study. The following sub-sections provide the rationale for each type of methodology that was adopted.

4.3.2.1. Semi-structured interviews

Semi-structured interviews were selected as the primary means of data collection for this research project. According to Longhurst (2003), a semi-structured interview is viewed as a simple, inoffensive verbal interchange where the interviewer can draw information from the interviewee by asking open-ended questions. Chambers (1997) and Gray (2004) also suggested that semi-structured interviews are non-standardized and often used in qualitative research. Even though semi-structured interviews involve the preparation of a list of leading questions, the interviewer may diverge from the script when new or important matters arise (Longhurst, 2003). Due to its characteristics, semi-structured interviews are well suited for the exploration of the perceptions and opinions of respondents regarding complex issues and enable probing for more information and clarification of answers (Gray, 2004), and thus

were adopted as a means for data collection in this research (see Appendix 5 for initial semi-structured interview questions).

4.3.2.2. Field Walks and Observations

Field walks and observations were used as another means for data-collection in this research project. This approach gave me an opportunity to familiarize myself with the research site, the infrastructure and other available facilities (see Figure 4.2 below: a hand water pump on the top left, livestock stall on the top right, road access and vehicle transport on the bottom left, and village committee office on the bottom right). (Please also see more in Appendix 7).

Figure 4.2: Infrastructures and other Available Facilities after Resettlement



Source: The Author, 2011

I also had a chance to mingle casually with the local people, to get to know and learn from them about their livelihoods in general. More importantly, I also had a chance

to discuss with them my research project informally and gained their insights about the general impact of the resettlement and livelihood reconstruction program. However, I kept in mind that scientific observation is not merely a question of looking or watching something and then noting down the facts. Observations allow researchers to study input from all five senses. According to Gray (2004), observation gives researchers the ability to objectively note the attitudes and behaviour of people. This approach, in a methodological sense, is supported by Flick (2002) who argued that observation is another everyday skill which is methodologically systematized and commonly applied in qualitative research. In acknowledgement of the positive aspects of this approach, field walks and observations were adopted for use in this research.

4.3.2.3. Informal Conversational Interviews

Fontana and Frey (2002, p.652, cited in Patton, 2002) defined the informal conversational interview as the “unstructured interviewing” - the most open-ended approach to interviewing, which offers maximal flexibility to pursue information from the research participants. This approach was adopted in this research design specifically for collecting information from local residents who did not have much time to participate fully in the formal interview process, and to gain insights on general impacts of the resettlement and livelihood reconstruction activities. Patton (2002) suggested that this interview approach allows researchers the ability to collect and expand information with flexibility, spontaneity, and responsiveness to individual differences and situational changes. Thus, questions were made to be personalized to deepen communication with the person being interviewed and made use of the immediate surroundings and situation to increase the concreteness and immediacy of the interview questions.

4.3.2.4. Secondary Materials / Secondary Data Sources

Secondary data defines information that has already been gathered for a specific purpose (as primary data) but is later made available, often in another format, for

other researchers to use for different purposes (White, 2003). Secondary materials or secondary data sources include published government statistics, local and regional government reports, local newspaper and magazine archives, university research, and reports from various institutions (Overton & Diermen, 2003). In particular, secondary data sources often play a crucial role in conducting a literature review and providing background context for the research. Early examination of obtainable data can be instrumental in the formulation of a research project and in facilitating the identification of research gaps. Secondary materials can also supply the rationale for picking the various available options in the areas, groups, or case studies targeted for analysis (White, 2003). In this research project, secondary materials were also used to supplement both the literature review and the data collected using primary qualitative methods described above. These included official documents such as the Prime Minister's decrees, policy documents and guidelines, written reports from the international financial institutions, independent monitoring groups and project developers.

4.4 Fieldwork in Practice

While the adopted research methodology proves its significance for data collection in this study, it is also important to recognize other practical issues that arose during the conduct of the fieldwork. This section provides a discussion on some of the difficulties experienced during the fieldwork, how these were handled and some of the lessons learnt from the field.

The process of gaining permission to conduct research and obtaining access to the research site was time consuming. I had submitted my request (attached with the information sheet) via emails to the Resettlement Management Unit (RMU) and the NTPC Nakai Resettlement Office a few weeks prior to my field visit and followed up with them via phone calls. It was very difficult to get their response in time partly because the timing was not right and usually student research was not important enough to call

for their attention, especially with their busy schedule. This could be frustrating for researchers who are not familiar with this slow process. However, I have learnt that patience and flexibility are the keys to this kind of difficulty. I had waited patiently for their response but also had sent them a kind reminder a couple of times until they responded. Then I had to re-explain my research purposes via phone calls, and re-submitted the information sheet and the letter of support from my department. With this persistence, they eventually responded.

More often, these officials are quite sceptical about the whole 'research thing' – the term 'research' itself is usually attached with negative connotations (which could be too critical and could potentially bring harm to the project, to their reputation), and thus they may be reluctant to cooperate. This could eventually lead to a delay in the process of gaining permission to conduct research and accessing field sites. To deal with these delays and suspicions, I repeatedly and patiently explained to the respective officials that all the information gathered would be used only for the purpose of completing my thesis. I had also reassured them that I would share with them a summary of the initial findings, and would have a discussion with them at the conclusion of my fieldwork to ensure the accuracy of the information obtained during the whole course of my research.

Another practical issue involved the reactions of some local villagers to being questioned openly, or being the centre of attention during the interview as part of the data collection process. I have also noticed that some of the local villagers lacked the confidence to express themselves in response to some of the open-ended questions I had prepared. This was partly because they had to create a narrative about the changes they experienced before and after the resettlement which might be an issue for those who were illiterate or never attended school. More importantly, some of the local villagers might have not felt confident or comfortable giving out the information to an outsider when trusting relationships have not yet been established. To address the lack of confidence issue, I initiated a discussion by creating a friendly conversation, starting

with telling my own story of how I had come to study in New Zealand, then casually asking about people's daily lives and their families prior to the actual interview. When participants felt more relaxed and comfortable, they started to speak more confidently about themselves; I then slowly changed the subject to ask them my research questions.

4.5 Limitation of Research

This research was conducted at a particular point in time and place, where the Nakai resettlement and livelihood restoration programs were relatively new and still had the constant support of the government, the project company as well as other international financial institutions. The research was restricted to the immediate changes experienced by the local people after resettlement, as they compared their current living conditions with the situation before resettlement. However, the local situation could potentially change in the future (especially in a continuously changing environment which can influence the availability of and access to natural resources; and when these resettled communities no longer receive the same level of support from the project), and whether this will be for the better or for the worse is still too soon to conclude. Therefore, the data collected might only reflect the impact of resettlement and livelihood restoration arrangement at a specific time, and the research therefore could not fully determine whether these programs have contributed to livelihood sustainability of the project affected communities.

The research was also constrained due to the considerable amount of time consumed in securing permission to carry out the fieldwork on site, leading to a decrease in time spent in the field over what was originally planned. In addition, I lacked financial support to stay in the field for a longer period of time. These factors significantly influenced the size of the target population that I was able to recruit to participate in this research. This could possibly affect the ability to generalise the findings as the research may not be representative of the whole target population. This was another major research limitation, and meant that during the three weeks in the field, I was only able to visit

five villages (out of sixteen) and had 43 family households (out of approximately 578 family households) participate in this research. While this number represents quite a wide range of demographics and interest groups, the family households in the five villages used in this research may not fully represent the voice and interest of all project affected people in the sixteen villages.

4.6 Summary

The description of the process of fieldwork preparation, ethical considerations, as well as the process of accessing the research site and research participants was covered in detail in this chapter. Furthermore, an account of the process of data collection in the field was provided, as well as a rationale for each type of methodology that was adopted. The chapter then presented the fieldwork in practice, with special emphasis on practical issues, lessons learnt, and the constraints of the research.

The process of gaining permission to conduct research and obtaining access to the research site, especially in many developing countries, can be time consuming. Even with sound fieldwork preparation, the process could take a long time and might eventually interrupt the initial work plan. The length of the process would be disturbing for researchers who are not familiar with the area. However, the key to this is patience and flexibility. In addition, being aware of, showing respect to and following traditional protocols is very important. Meeting with the Village Chiefs at the very start of the data collection process could be an essential first-step of gaining access to villagers in the community. More importantly, building trusting relationships with the local people could be crucial in gaining more truthful and more sincere information from them.

CHAPTER FIVE

RESULTS AND ANALYSIS I – COMPARISON OF NAKAI LIVELIHOODS BEFORE AND AFTER RESETTLEMENT

5.1 Introduction

This chapter presents the findings of the fieldwork with the aim of analysing the existing contribution of the Nakai resettlement and livelihood restoration programs to preventing impoverishment and reconstructing livelihoods of the resettled people in the Nakai Plateau area. It also explores primarily the changes to their livelihoods perceived by the resettled communities compared to situations before resettlement. The chapter begins with a brief introduction to the research site including the five surveyed resettlement villages on the Nakai Plateau, and a description of the livelihood experiences of the resettled people prior to the NT2 project (Section 5.2). Section 5.3 then moves on to describe the NT2's approach to livelihoods restoration by firstly providing a short summary of the Nakai livelihood program activities currently being carried out by the resettled villages. This section will subsequently examine the changes the resettled people have experienced since moving to the Nakai Plateau resettlement area with special attention to the perceived positive impacts and major challenges they face.

Table 5.1: Research Participants' Profile

| Village | No. Family HH | Women | Men | Husband & Wives | Vulnerable Group |
|-------------------|---------------|-----------|-----------|-----------------|------------------|
| Ban Nong Bua | 10 | 4 | 3 | 3 | 2 |
| Ban Don | 10 | 6 | 4 | - | 1 |
| Ban Sob On | 8 | 2 | 3 | 3 | - |
| Ban Sob Hia | 5 | 4 | - | 1 | - |
| Ban Nong Bua Kham | 10 | 8 | 1 | 1 | - |
| Total | 43 | 24 | 11 | 8 | 3 |

Source: The Author's Fieldwork Survey, 2011

The research findings are based on data primarily collected from responses to semi-structured interviews with 43 family households in the five resettlement villages (see Figure 4.1 on page 57 for the five resettled villages' location. Details on how these villages and households were selected were also given in Chapter Four). To recap, there were 10 family households from Ban Nong Bua, Ban Don and Ban Nong Bua Kham, and

eight and five family households from Ban Sob On and Ban Sob Hia respectively (see Table 5.1 above for research participants' profile). Of the total households that participated, interviews were conducted with 24 women, 11 men, and eight couples (both husbands and wives). Furthermore, three families who were categorised by the project as vulnerable households, made up of a household of two elders and two female-headed family households were also included in this interview process. These vulnerable groups were identified on the basis of characteristics such as being short of adult labour (such as very young, very old or handicapped household head) and other socioeconomic factors (such as female headed households).

5.2 Nakai Plateau and Life before Resettlement

5.2.1 General Contextual Background

The NT2 Hydropower Project resettlement area is located on a plateau between the Annamite mountain range, which defines the border between Lao PDR and Vietnam, and the lowland areas stretching down to the Mekong River and the border with Thailand (NT2 Project, 2005a; Ovenden, 2007). The plateau is in Nakai District of Khammouane Province, historically one of the poorest districts in Lao P.D.R (NT2 Project, 2005a). The area was previously quite remote, where it took almost half a day to travel between the Nakai district capital, Oudomsouk, and the provincial capital, Thakek in the dry season (NT2 Project, 2005a). During the wet season, the Nakai Plateau could virtually be inaccessible. Of the 16 villages resettled, more than half had no road access, and some were accessible only by boat. Most families lived in houses constructed of traditional materials of wood, bamboo and thatch or shingles for roofing (see Figure 5.1 below) (NT2 Project, 2005a; WB & ADB, 2010). Most households had no access to electricity, access to clean water was limited, and paved roads were not available. Social conditions were similarly precarious, with more than 60% of the population lacking access to schooling and with the average distance to the nearest health facility being 11 kilometres, usually travelled by foot (NT2 Project, 2005a, p. 2; Ovenden, 2007; WB &

ADB, 2010, p. 11). For the most part, the living environment for communities residing on the Nakai Plateau in the past was very poor and other basic infrastructures were almost non-existent.

Figure 5.1: Village Prior to Resettlement



Source: WB & ADB, 2010, p.11

5.2.2 Five Selected Resettlement Villages

5.2.2.1 Nong Bua Village (Ban Nong Bua):

Nong Bua Village (or Ban Nong Bua) is located close to the centre of Nakai District to the North, which is about 15 minutes travel by motorbike between Oudomsouk Village and Nong Bua Village. It is a pilot village where the resettlement process first took place in 2003, while the intended resettlement process for the remaining 15 villages started a few years later in 2005 and 2006. Amongst the 16 Nakai resettlement villages, Nong Bua Village is characterized as a relatively poor to middle-income village with a total of 56 family households (approximately 280 residents) as of 2011 (Chief of Nong Bua Village, personal communication on June, 2011), which is an increase of almost 100% from the total number of 30 households in 2003 (NT2 Project, 2005b).

Findings from my survey indicate that livelihoods before resettlement for the people of Ban Nong Bua were dependent primarily on swidden (shifting cultivation of upland rice) (see Table 5.2).⁸ However, most of my respondents claimed that only a small number of households in this community (2 out of 10 respondents) could produce sufficient rice for the year and most families suffered rice deficiency for more than six months per year. Collecting food in the forest and along streams and gathering Non-Timber Forest Products (NTFPs) were, therefore, considered important means of support for these villagers to supplement subsistence agriculture when households were rice deficient. Other additional livelihood activities included fishing along rivers or streams, household gardening and livestock, all of which were fundamentally for subsistence consumption.

Table 5.2: Livelihood Activities before Resettlement in Ban Nong Bua

| Livelihood Activities | Number of Respondents (Out of 10) |
|--|-----------------------------------|
| Shifting cultivation | 10 |
| Fishing along rivers/streams | 4 |
| Farming in the farmland areas | - |
| Household gardening (within household areas) | 5 |
| Livestock | 2 |
| <i>Large animals (buffalo and cattle)</i> | 2 |
| <i>Smaller animals (chicken, ducks, pigs)</i> | 2 |
| Collecting foods in the forest and along streams | 8 |
| Gathering NTFPs | 8 |

Source: The Author's Fieldwork Survey, 2011

5.2.2.2 Don Village (Ban Don):

Don Village (or Ban Don) is mapped the second to last of the villages in the southern area of Nakai Plateau, after Khone Kane Village; it took approximately 30 minutes by motorbike to travel between Ban Don and the Nakai District capital. The area is known for large livestock raising, especially buffalo and cattle. People started resettling in Ban Don from 2006 with a total of 127 family households resettled (NT2 Project, 2005b).

⁸ Table 5.2 summarizes livelihood activities before resettlement in Ban Nong Bua. All research participants could give multiple answers when asked what their livelihood activities were before resettlement.

Amongst the 16 Nakai villages resettled, Ban Don is characterized as a wealthier village and it is one of the biggest with more than 170 family households (with approximately 1327 residents) as of 2011 (Chief of Don Village, personal communication on June, 2011).

Table 5.3: Livelihood Activities before Resettlement in Ban Don

| Livelihood Activities | Number of Respondents (Out of 10) |
|--|-----------------------------------|
| Shifting cultivation | 9 |
| Fishing along rivers/streams | 4 |
| Farming in the farmland areas | 4 |
| Household gardening (within household areas) | 4 |
| Livestock | 10 |
| <i>Large animals (buffalo and cattle)</i> | 10 |
| <i>Smaller animals (chicken, ducks, pigs)</i> | 3 |
| Collecting foods in the forest and along streams | 8 |
| Gathering NTFPs | 8 |
| Small-scale businesses | 2 |

Source: The Author's Fieldwork Survey, 2011

Before resettlement, my survey showed people in Ban Don relied heavily on shifting cultivation and large livestock raising (buffaloes and cows) (see Table 5.3 above).⁹ While rice production from upland cultivation was insufficient to support the family for the year (8 out of 10 respondents), many of my respondents suggested that people in Ban Don could use cash income from the sale of large livestock (mainly buffalo and cattle) to supplement this. Similar to the other villages, gathering food in the forest and along streams and harvesting NTFPs were also important means of support for the community in Ban Don. Other livelihood activities also included fishing along rivers or streams, farming in their farmland areas, household gardening within their household areas, small livestock raising and small-scale businesses, all of which were basically for household consumption.

⁹ Table 5.3 summarizes livelihood activities before resettlement in Ban Don. All research participants could give multiple answers when asked what their livelihood activities were before resettlement.

5.2.2.3 Phon Sa On Village (Ban Sob On):

Located in the southern area of Nakai Plateau, Phon Sa On Village (or Ban Sob On) shares the southern boundary with Ban Don. Ban Sob On is a central service centre, where many community facilities (including a healthcare clinic) are available for the resettled people in the southern territory of the Nakai Plateau. Ban Sob On is categorized as a middle-income village. It is now amongst the biggest villages in the new resettlement area, with approximately 206 family households (Chief of Phon Sa On Village, personal communication on June, 2011), which is double the total number of 99 family households in 2005 when the resettlement process started (NT2 Project, 2005b). Similar to the other villages, findings from my survey indicate that people in Ban Sob On were dependent on a range of livelihood activities before resettlement (see Table 5.4).¹⁰ My survey showed that shifting cultivation, large and small livestock raising, and household gardening were amongst the main livelihoods for the people in Ban Sob On. Gathering food in the forest and along streams, and collecting NTFPs were also important for subsistence consumption.

Table 5.4: Livelihood Activities before Resettlement in Ban Sob On

| Livelihood Activities | Number of Respondents (Out of 8) |
|--|----------------------------------|
| Shifting cultivation | 8 |
| Fishing along rivers/streams | 1 |
| Household gardening | 5 |
| Livestock (large and smaller animals) | 6 |
| Collecting foods in the forest and along streams | 8 |
| Gathering NTFPs | 8 |

Source: The Author's Fieldwork Survey, 2011

5.2.2.4 Sob Hia Village (Ban Sob Hia):

People started being moved to Sob Hia Village (or Ban Sob Hia) in 2005 with a total of 58 family households eventually being moved (NT2 Project, 2005b). Located in the

¹⁰ Table 5.4 summarizes livelihood activities before resettlement in Ban Son On. All research participants could give multiple answers when asked what their livelihood activities were before resettlement.

northern region of Nakai Plateau, Ban Sob Hia is a small ethnic community in the new resettlement area with approximately 44 family households as of 2011 (Chief of Sob Hia Village, personal communication on June, 2011). Ban Sob Hia is categorized as a middle-income village with handicraft being regarded as another important means of support (see Table 5.5 below).¹¹

Table 5.5: Livelihood Activities before Resettlement in Ban Sob Hia

| Livelihood Activities | Number of Respondents (Out of 5) |
|--|----------------------------------|
| Shifting cultivation | 5 |
| Fishing along rivers/streams | 4 |
| Household gardening (within household areas) | 3 |
| Livestock | 6 |
| <i>Large animals (buffalo and cattle)</i> | 1 |
| <i>Smaller animals (chicken, ducks, pigs)</i> | 3 |
| Collecting foods in the forest and along streams | 3 |
| Gathering NTFPs | 3 |
| Textile and crafts | 1 |
| Wage labour | 1 |

Source: The Author's Fieldwork Survey, 2011

Before resettlement, my survey indicated that shifting cultivation, fishing along rivers or streams and small livestock raising (such as chickens, ducks and pigs) were important livelihoods for the people in Ban Sob Hia. Collecting food in the forest and along streams and harvesting NTFPs were also essential for subsistence consumption.

5.2.2.5 Nong Bua Kham Village (Ban Nong Bua Kham):

The resettlement process in Nong Bua Kham Village (or Ban Nong Bua Kham) started in 2005 and a total of 50 family households were resettled (NT2 Project, 2005b). Currently, Ban Nong Bua Kham is regarded as a relatively wealthy village in the new resettlement area, with approximately 70 family households (Chief of Nong Bua Kham Village, personal communication on June, 2011). The village is located in the northern area of

¹¹ Table 5.5 summarizes livelihood activities before resettlement in Ban Sob Hia. All research participants could give multiple answers when asked what their livelihood activities were before resettlement.

Nakai Plateau, close to the NT2 reservoir. Therefore, fishing in the NT2 reservoir is regarded as one of the main income generating activities for the people of Nong Bua Kham Village. In addition, Ban Nong Bua Kham is also a service centre, where many community facilities including a healthcare clinic are available for the resettled people in the northern territory of the Nakai Plateau.

Table 5.6: Livelihood Activities before Resettlement in Ban Nong Bua Kham

| Livelihood Activities | Number of Respondents (Out of 10) |
|---|-----------------------------------|
| Shifting cultivation | 9 |
| Fishing along rivers/streams | 10 |
| Farming in the farmland areas | 3 |
| Household gardening | 6 |
| Livestock | 7 |
| <i>Large animals (buffalo and cattle)</i> | 6 |
| <i>Smaller animals (chicken, ducks, pigs)</i> | 1 |
| Collecting food in the forest and along streams | 10 |
| Gathering NTFPs | 10 |
| Small-scale businesses | 1 |

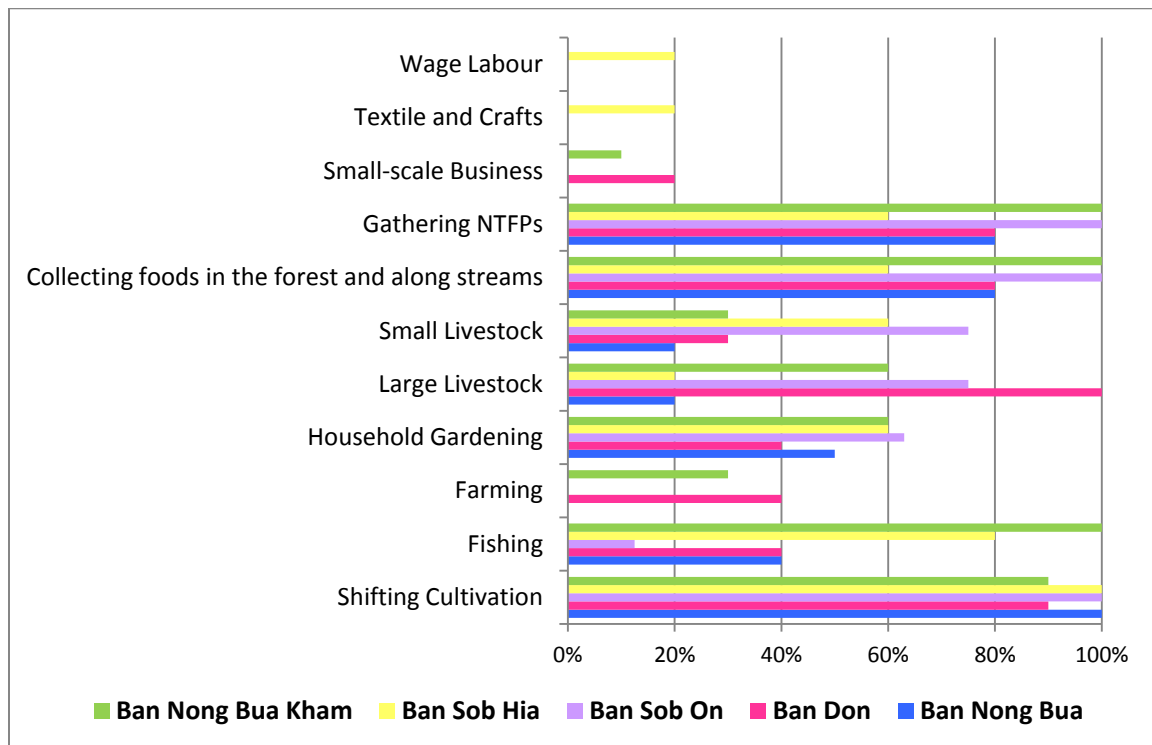
Source: The Author's Fieldwork Survey, 2011

Findings from my survey indicate that residents of Ban Nong Bua Kham were dependent heavily on fishing along rivers or streams and shifting cultivation before resettlement (see Table 5.6 above).¹² In addition to the mentioned activities, farming, livestock raising (both large animals and smaller animals), household gardening and small-scale businesses at home were amongst other additional livelihood activities for the people of Ban Nong Bua Kham.

In summary, communities in the five villages shared similar livelihood patterns before the commencement of the NT2 project (see Figure 5.2 below for graphical illustration). Common livelihood activities of these villages before resettlement were shifting cultivation, collecting food in the forest and along streams, and gathering Non-Timber Forest Products (NTFPs).

¹² Table 5.6 summarizes livelihood activities before resettlement in Ban Nong Bua Kham. All research participants could give multiple answers when asked what their livelihood activities were before resettlement.

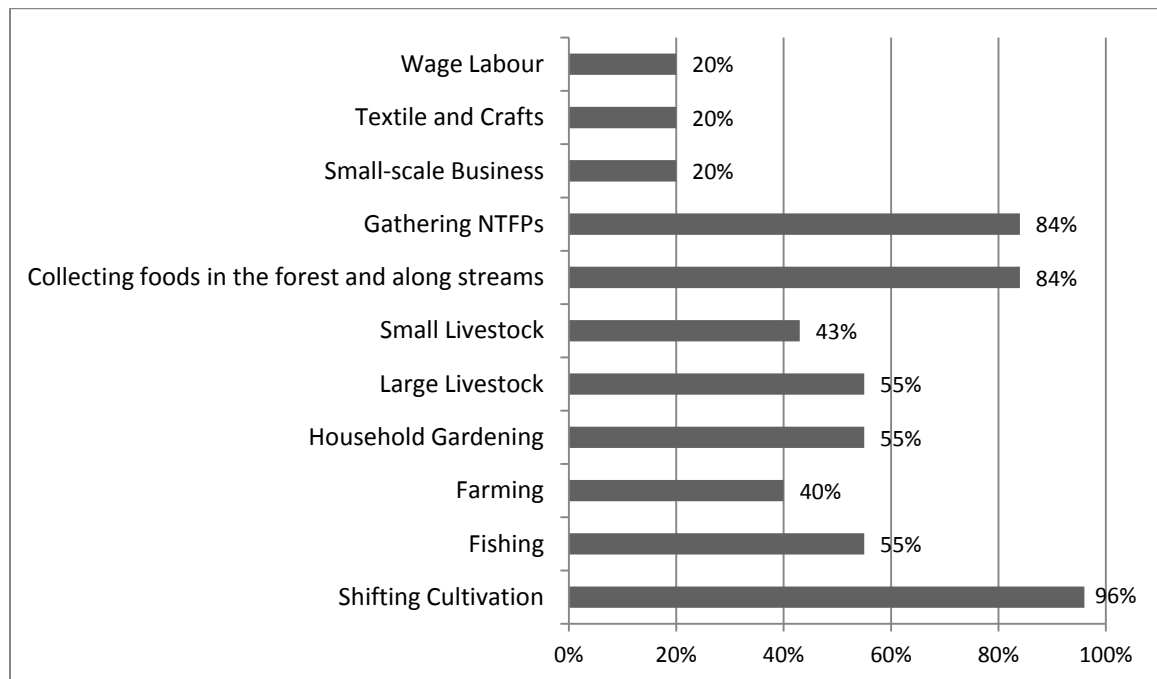
Figure 5.2: Livelihood Activities before NT2 Project in the Five Resettlement Villages



Source: The Author's Fieldwork Survey, 2011

More specifically, as illustrated in Figure 5.3, most villagers (96% of participants) in the five villages were dependent primarily on shifting cultivation of upland rice, despite the fact that most families, especially with large numbers, were not able to produce sufficient rice to support the family for the whole year. In order to cope with food insecurity, households living in the five villages had to rely on various other livelihood activities such as collecting food in the forest (84%), raising of large and small livestock (about 50% on average), fishing along rivers or streams (55%) and household gardening (55%), practically all of which were for subsistence consumption. NTFPs also played a central role in household livelihoods. Eighty four percent of participants were reliant on collecting NTFPs. They were an important seasonal source of cash income in these villages and a significant overall source of food, particularly in the agricultural low period, when most households were rice deficient. The combination of these activities was the primary means of support for these villagers: reliance on just one or two activities was rare.

Figure 5.3: Livelihood Activities before NT2 as Percentage of Total (43 households)



Source: The Author's Fieldwork Survey, 2011

5.3 Nakai Livelihoods Development

As discussed earlier in Chapter One, the NT2 project required building a dam on the Nam Theun on the Nakai Plateau, resulting in a reservoir of around 450 km² at maximum operating level. The creation of this reservoir led to the resettlement of around 6,300 people or about 1,200 family households living in 16 villages on the Nakai Plateau (Ovenden, 2007, p. 4). To comply with the NT2 Resettlement Policy and the Concession Agreement (CA) made between the Government of Lao PDR and the project company, particularly on Schedule 4 that relates to the social component of the project, the commitment to these communities extends beyond compensating them for the move to include developing a livelihood reconstruction scheme with the expectation of helping resettled communities access to a diverse set of livelihood opportunities and to achieve an acceptable level of income (NT2 CA, 2005). This is to ensure that, by having income streams, livelihoods and social systems restored, affected peoples and their offspring are substantially better off as a result of the project (Ovenden, 2007).

Specifically, the CA Schedule 4 Part 1, Section 3.1 lists the resettlement objectives being to:

- (a) Ensure that all Project Affected Persons promptly receive their entitlements under clause 15;
- (b) Ensure that Resettlers have their income earning capacity enhanced and achieve the Household Income Target, with adequate support being provided by the parties during the Resettlement Implementation Period;
- (c) Materially improve Resettlers' livelihoods on a sustainable basis;
- (d) Restore livelihoods of Projected Affected Persons (other than Resettlers who are covered by paragraph (c) on a sustainable basis;
- (e) Have the Project Affected Persons participate in the consultation, planning and design process of their new settlement and production areas;
- (f) Apply special measures as required towards ethnic minorities and vulnerable persons to take care of their needs and foster self-reliance and to improve their socio-economic status;
- (g) Provide for construction of infrastructure in the Resettlement Area in accordance with the standards set out in this Part for the best interests of the local population and the population in and around the Resettlement Area;
- (h) Make replacement land available to all those interested with cash compensation only to be considered for those with specific plans to permanently move out of the district;
- (i) Conceive and execute resettlement and rehabilitation plans as specific development plans; and
- (j) Comply with the NT2 Resettlement Policy

Source: NT2 Concession Agreement, 2005, p.6

The NT2 Livelihood Development is the third stage of the three broad resettlement phases after Consultation and Planning, and the Physical Relocation (NT2 CA, 2005; WB & ADB, 2010). Detailed consultations and community outreach helped determined resettlement sites, design of new houses, village layouts and livelihood opportunities. The resettlement and livelihood restoration programs were designed taking into consideration the natural resources available to resettlers, their skills, traditions and previous livelihood patterns (NT2 CA, 2005; WB & ADB, 2010). These programs adopted an integrated approach with five main components, which are often referred to (in most project reports) as the five pillars of the livelihood programs: (1) Agriculture, (2) Livestock, (3) Community Forestry, (4) Reservoir Fisheries, and (5) Off-farm (WB & ADB, 2010). While these different livelihood components are central to the programs, the households themselves are encouraged to decide which combination of livelihood

opportunities to pursue, depending on their interests, skills, experience, and the availability of labour within their family (WB & ADB, 2010).

5.3.1 Summary of the Five Pillars of Livelihood Programs

The following is a summary of the five pillars of livelihood programs, which are central to the Nakai resettlement and livelihood reconstruction scheme. The information is largely drawn from the NT2 resettlement policy and NT2 Concession Agreement (2005) represented at the time the NT2 hydropower project was constructed, supplemented with some of my own observations during the field research (2011).

5.3.1.1 Pillar 1: Agriculture Development

The agriculture development pillar aims to enable resettled households on the Nakai plateau to develop productive and sustainable agriculture production as a part of their livelihood system - a livelihood system which will also include livestock, reservoir fisheries, and commercial forestry and non-farm enterprises.

- Every family household (regardless of family size) is provided with a 0.66 ha land area for agriculture purposes with partial irrigation (about 0.2 ha).
- In addition to the 0.66 ha agricultural land, resettlers will be given access to the identified potential reservoir downzone area, which is the area exposed every year as water levels in the NT2 reservoir fall during the dry season, to cultivate rice, maize, vegetables, cassava and corn or to use for livestock grazing.



A local picking vegetables from her garden. Source: The Author, 2011

- Resettlers are provided with access to training on new farming techniques and other training necessary to prevent erosion, improve soil quality and enhance overall agricultural quality and productivity until the end of resettlement implementation period.
- Resettled households are also provided with technical assistance and agricultural advice, through extension workers and demonstration plots in each village.
- Necessary agriculture inputs (such as rice, field crop, vegetable, forage crop seeds, fruit tree seedlings), agricultural tools and equipment (such as Siem, Crowbar, power tiller, and rice mill); and agricultural facilities (such as seed processing and storage facility, and organic fertiliser factory) are also made available to all family households.

5.3.1.2 Pillar 2: Livestock Development

The livestock development pillar aims to enable resettled households on the Nakai plateau to develop productive and sustainable livestock production as a part of their livelihood system.



Cattle raising in an open land.

Source: The Author, 2011

- There is a provision of cattle as breeder(s) to resettlers: 2 cattle are provided for those families with no cattle or buffalo; and 1 cattle for those with 1 to 3.
- Breeds of smaller livestock such as pigs, chicken and ducks are also provided for interested resettlers.

- Resettlers are given access to technical training on growing fodder for livestock and other training concerns with the development of productive and sustainable livestock production through extension advice as well supply of vet medicines.

5.3.1.3 Pillar 3: Community Forestry Development

The community forestry development pillar aims to enable resettlers on the Nakai plateau to develop and manage forest resources by and for the local community, which will lead to provide them with improved livelihoods and incomes as a part of their livelihood system.



A member to the VFA.

Source: WB & ADB, 2010, p.21

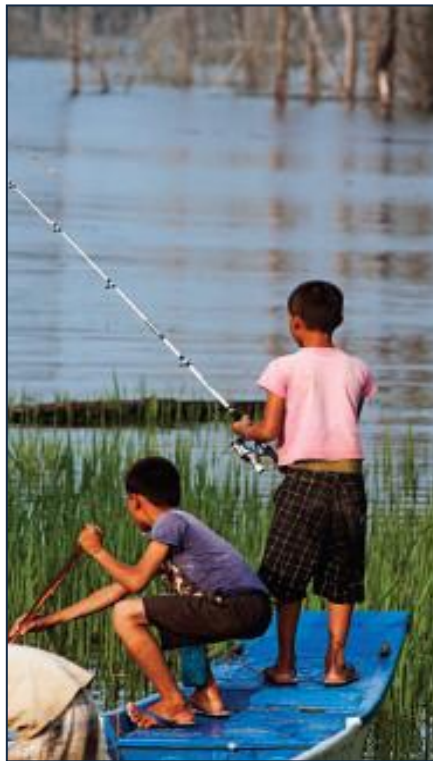
- Nakai Plateau Village Forestry Association (NPVFA), also known as VFA, is established as the Board of Management to develop sustainable use of their forest land and resources and management.
- VFA's main objectives are to develop livelihoods and generate income for the resettled populations. This will include regular incomes to resettled households in the form of annual cash dividends and access to opportunities to earn money from forestry-based activities.

- A 23,400 hectare forestry concession in the area surrounding resettlement villages is granted to the resettled people for their exclusive benefit for a seventy-year period and to be managed by the VFA working with village based forestry groups under individual village community control.

- All affected households are eligible as members of the VFA.
- Resettled people are also given access to training with regards to forestry such as carpentry, wood processing, and other small-scale furniture production.

5.3.1.4 Pillar 4: Reservoir Fisheries Development

Apart from livelihood sources such as forestry, agriculture and other employment opportunities, reservoir fisheries will form an important source of animal protein for household consumption, contribute to additional household cash income, as well as provide employment opportunities both in actual fisheries and fish trade. Under the reservoir fisheries component:



- All resettlers are to be the primary beneficiaries from fishery resources in the reservoir created by the dam for the first ten years of its existence;
- All resettled households are given full access to fisheries in the NT2 reservoir for subsistence purposes; access to fisheries in the NT2 reservoir for commercial purposes in accordance with Reservoir Fisheries Management Program;
- Fisheries equipment and gear (boats, and fishing nets), and training on fish processing are also provided to resettled households.

Young boys fishing in the NT2 reservoir.

Source: WB & ADB, 2010, p.23

5.3.1.5 Pillar 5: Off-farm Income Development

Non-farm or off-farm income development pillar aims to enable resettlers on the Nakai plateau to access to other source of income and employment opportunities in addition to the other four livelihood pillars. Resettlers are provided with access to skill training for:

- Off-farm employment such as tailoring and weaving, small machine repair shop and spare parts shops (such as pushbikes, motorbikes, and power tillers), small goods shops;
- Marketing such as buying and selling local produce;
- Processing of locally produced produce;



A local attending dress-making training.
Source: WB & ADB, 2010, p. 27



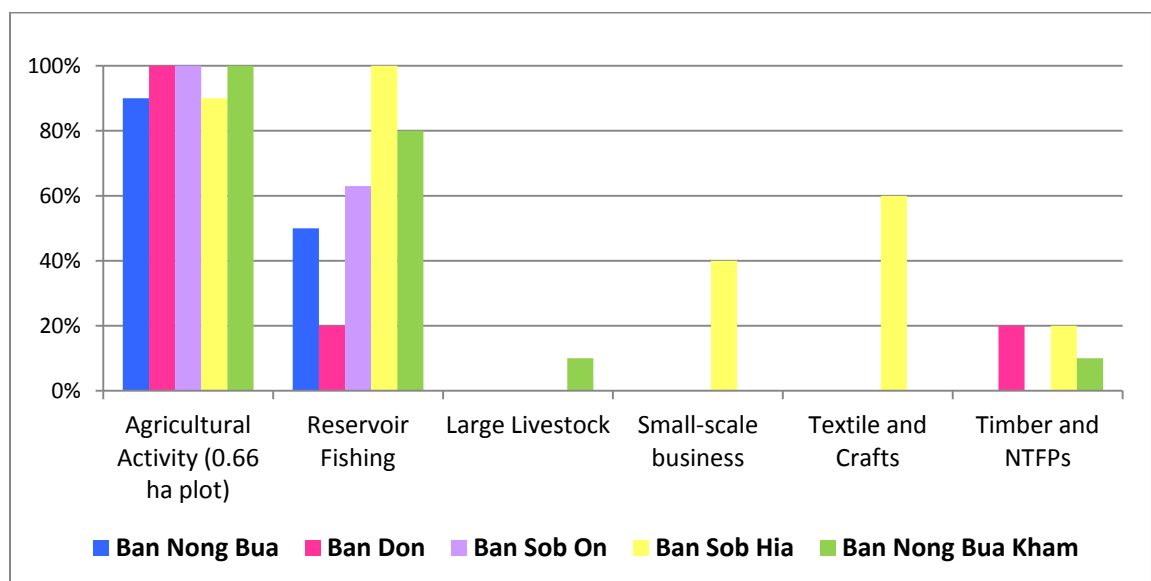
A local and her food / convenience shop.
Source: The Author, 2011

- Employment in NT2 project facilities (such as guards, gardeners, and boatmen);
- Taxi and boat taxi drivers;
- Other services related to tourism and construction related unskilled and semi-skilled labour.

5.3.2 Livelihood Activities after Resettlement

Following the relocation period, resettlers have been introduced to a range of livelihood restoration program activities including agriculture and livestock raising, community forestry, reservoir fishing, and other non-farm income activities (the five pillars of livelihood programs as described in the previous section). However, my survey findings show that agricultural activity has remained a primary livelihood strategy for the majority of resettled villagers on the Nakai Plateau. During the semi-structured interview when asked ‘*what are your main livelihood activities after the resettlement?*’ most respondents tended to indicate agricultural activities. Figure 5.4 below shows that all respondents in Ban Don, Ban Sob On and Ban Nong Bua Kham and about 90% of the respondents in the other two villages actively engage in agricultural activity in the 0.66 hectare of agricultural land area provided by the project. The majority of the respondents in the five surveyed villages have used their agricultural plot for growing rice and corns, and some have also grown other subsistence crops, such as fruit trees and vegetables on their land as well. This livelihood strategy is very important for food as respondents indicated that most of their agriculture production is for consumption within the family household.

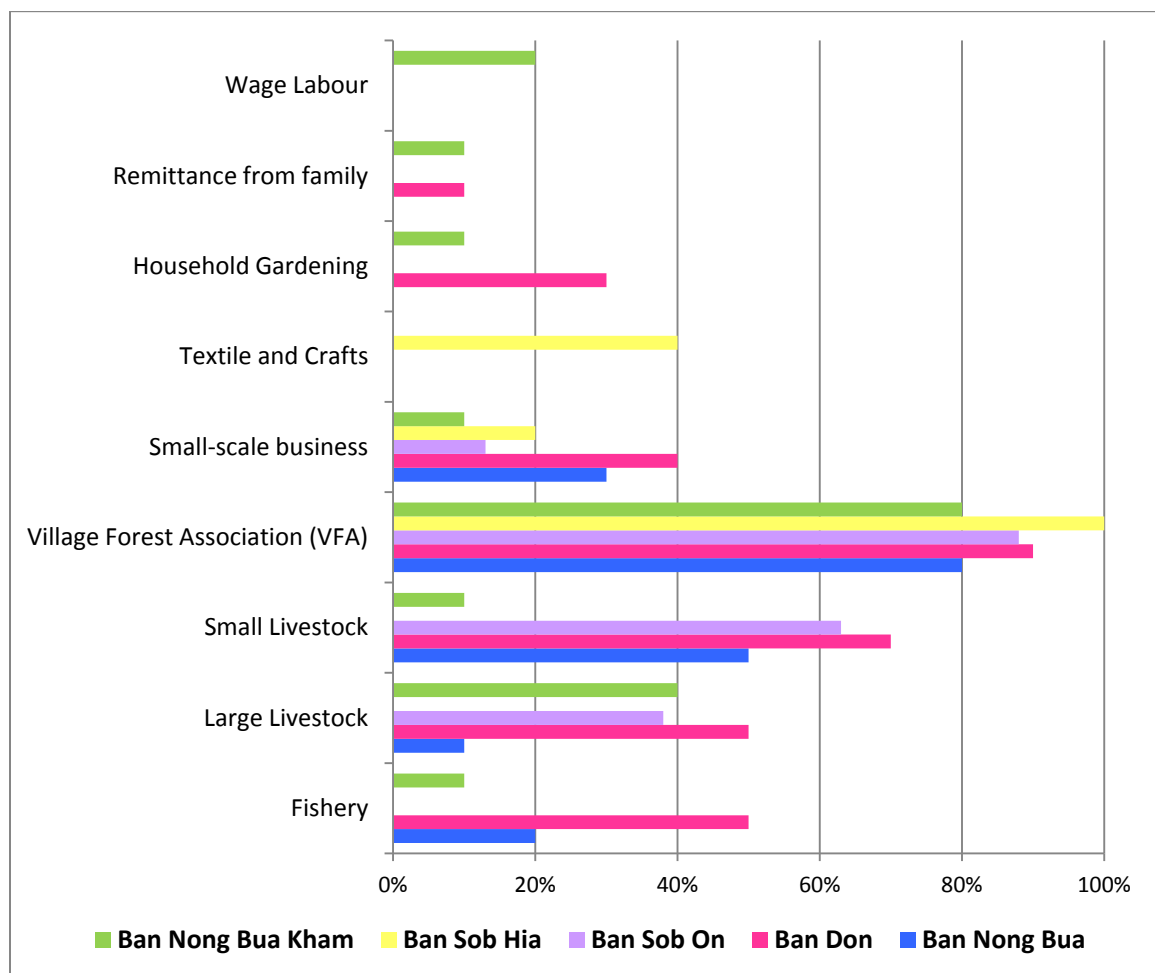
Figure 5.4: Main Livelihood Activities after Resettlement in the Five Villages



Source: The Author's Fieldwork Survey, 2011

Reservoir fishing is regarded as the second most important livelihood activity particularly for resettled villagers in Ban Sob Hia (100%), Ban Nong Bua Kham (80%) and Ban Sob On (68%). This activity is recognized as a vital source of cash income in these three villages with almost 100% of these respondents ranking commercial reservoir fishing as their main livelihood activity. For the other resettled villages, Ban Don and Ban Nong Bua (50% and 20% respectively), where reservoir fishing is not considered as a primary livelihood activity, it is, however, regarded as an important element in additional supporting livelihood strategies (see Figure 5.5 below). For these villages, reservoir fishing is an important source of food and protein as respondents indicated that fish caught in the NT2 reservoir is primarily for household consumption.

Figure 5.5: Additional Activities after Resettlement in the Five Villages



Source: The Author's Fieldwork Survey, 2011

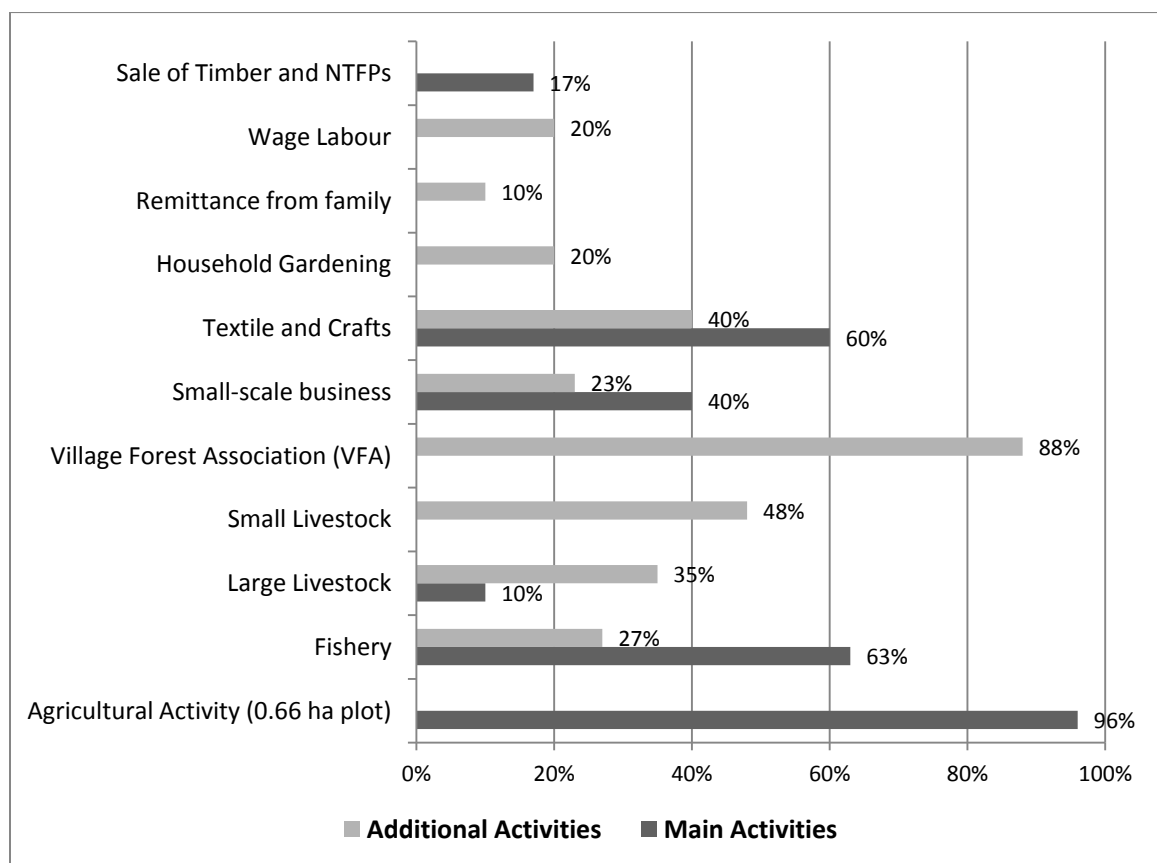
While resettlers in most villages have actively engaged in agricultural activity and reservoir fisheries as their primary livelihood activities since the resettlement, my survey findings also suggest that these villagers have also relied on other additional livelihood activities to support and supplement their family incomes. These activities include raising large livestock (such as buffalo and cattle) and breeding smaller livestock (such as pigs, chicken and ducks), community forestry related activities (VFA), small-scale businesses, textile and handicrafts, wage labour, and remittances from family members, all of which are regarded as important additional livelihood activities for most resettled villages. As shown in Figure 5.5, more than 85% of total respondents in the five villages indicated that VFA plays a vital role in household livelihoods. This is because VFA provides regular incomes to resettled households in the form of annual cash dividends. A dividend of 1 million kip (approximately US\$ 120) paid in 2009, and another of around US\$ 150 was paid to each family household in 2010 (WB & ADB, 2010). In addition, the VFA provides resettled people access to opportunities to earn more income from forestry-based activities such as forest plantation and small-scale furniture production.

Figure 5.5 also illustrates that livestock raising (both large and smaller animals) is an important supporting livelihood activity for most resettled villages. Fifty percent of respondents from Ban Don, 40% from Ban Nong Bua Kham, and 38% from Ban Phon Sa On respectively own large animals, comprising between 4 and 20 buffaloes or cows on average. The majority of those who own and raise large animals indicated that this activity has been a traditional savings vehicle in Lao culture and remained important for them. Similarly, 70% of respondents from Ban Don, 63% from Ban Phon Sa On, and 50% from Ban Nong Bua respectively own smaller livestock, comprising between 2 and 20 pigs and poultry on average. Most of those who raise smaller livestock regarded this activity as a means of support important for subsistence consumption.

In addition to community forestry related activities and livestock raising, my survey findings show that some resettled villages already have access to non-farm income strategy such as small-scale businesses, textile handicrafts and other wage

employments, where these activities were almost non-existent before resettlement due to limited access to road and markets. Figure 5.5 shows that textile handicrafts is considered significant after resettlement particularly for the resettled community in Ban Sob Hia, while there are several small family shops and other small-scale businesses running in most villages. Only a small percentage (between 10% and 20%) of total respondents indicated remittances from family and wage employment as part of their overall livelihood strategy (see Figure 5.6).

Figure 5.6: Livelihoods after Resettlement in Total Percentage (43 households)



Source: The Author's Fieldwork Survey, 2011

Results from the semi-structured interviews indicate that a small percentage (about 17% - see Figure 5.6 above) of the total respondents indirectly implied that they have relied on sales of illegal harvesting of timber and wildlife animals to make a living, but all of those who revealed that fact were reluctant to disclose further information. It was

noteworthy from the information obtained during field-walks and observations, and informal conversational interviews, that this form of activity has become a significant source of income for most resettled communities on the Nakai Plateau. In most visited villages, a large number of vehicles (both vans and motorbikes) owned by resettled villagers have no registration plates (see Figure 5.7 below). When I asked one of the District Officials *‘why are those vehicles without registration plates?’* one obvious reason was suggested that they use those vehicles to transport illegal timbers to traders or investors. This is a quick way to earn cash, and therefore, has become a very attractive source of income for these resettlers.

Figure 5.7: Vehicles Owned without Registration Plate



Source: The Author, 2011

5.3.3 Positive Impacts

Since their relocation, resettled people in most villages have benefitted from improvements in community and household infrastructure, and access to livelihood programs and other transitional support from the project. Findings from the semi-structured interviews with 43 family households in the five villages suggest that their lives have significantly improved after they moved to the new resettlement area (with

more than 95% expressing their satisfaction). More interestingly, when asked '*how is life now compared to life before resettlement*', research respondents from poorer villages tended to rate the change even more positively than those better-off villages, with more than 90% saying that life is now 'very much better'.

Figure 5.8: Positive Changes Identified by Resettlers in the Five Villages



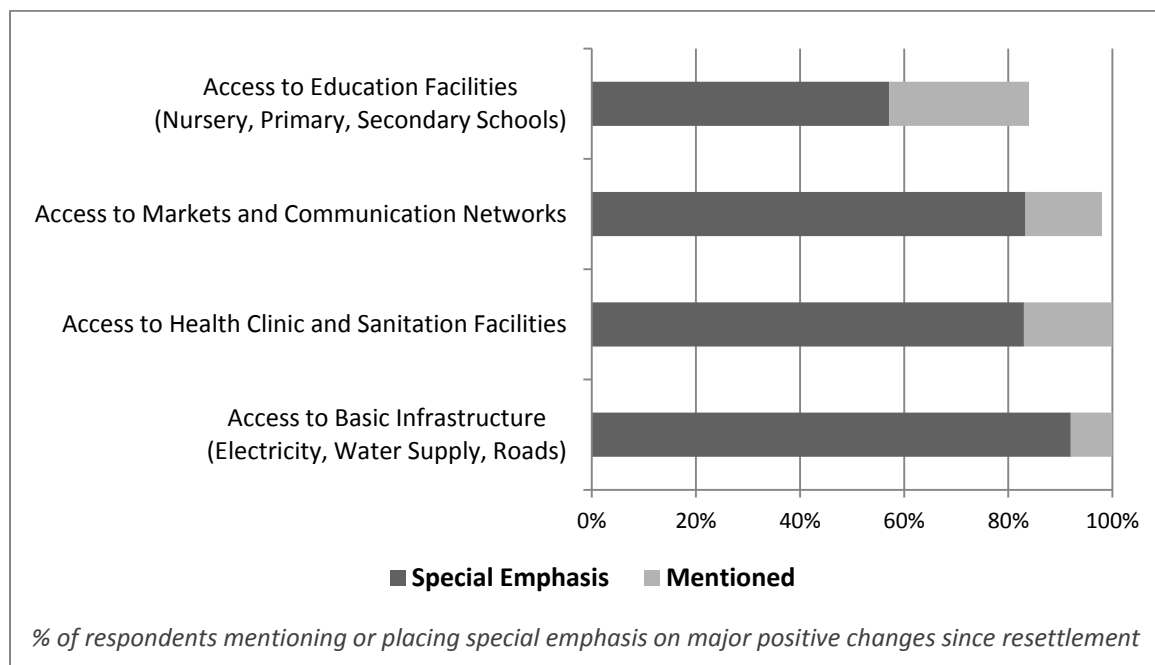
Source: The Author's Fieldwork Survey, 2011

Figure 5.8 above demonstrates a list of positive changes¹³ identified by households when asked to express or describe their overall impression about the NT2 project and general impacts of the resettlement and livelihood reconstruction activities. These positive changes include improvements to housing, roads, community buildings and services, as well as improvements to education and healthcare facilities, markets and communication networks that have come about as a result of the project. Respondents also expressed their satisfaction about the overall improvement of their living condition due to an increased access to a range of livelihood activities, training opportunities (such as vocational training, skills and service training) and other transitional support (such as livelihood technical advice and equipment) from the project. In addition, vulnerable households enjoyed the improvement of their living condition by receiving special assistance throughout the resettlement process, including rice and protein support from the project and priority access to livelihood programs.

During the semi-structured interview households were asked to list up to four things that significantly affected their lives and their living conditions after the resettlement and to explain their choice. As shown in Figure 5.9 below, all resettled participants clearly appreciated the increased access to basic infrastructure (such as electricity, water supply, 'all weather' access roads to town and other villages) and the improved access to healthcare and sanitation services. Of the total participants, 92% placed special emphasis to the value of the former and 83% emphasized the importance of the latter to the reestablishment of their livelihoods. Moreover, almost all participants (98%) recognized the benefit of greater access to markets (such as roads and transportation) and communication networks (such as televisions and telephone lines), with the majority of them giving special emphasis to the value of such access to the reconstruction of their livelihoods. Finally, 84% of the total participants welcomed the improved access to education facilities following the resettlement, with many of these respondents (68%) further indicated the importance of such access.

¹³ The list of positive changes has been compiled by the researcher when asking research participants an open-ended question, without having prepared a list of answers beforehand.

Figure 5.9: Major Positive Changes after Resettlement



Source: The Author's Fieldwork Survey, 2011

Many of these respondents then explained that these basic infrastructures, which were previously not available or almost non-existent, are now essential for them to rebuild their livelihoods in a variety of ways. My survey findings show that many of these respondents recognized the benefits from the access to electricity service as the power can be used to run household appliances such as water pumps, refrigerators and televisions. Electricity can also be used to provide light which allows them to work beyond sunset, thereby increasing production. Furthermore, access to electricity helps improve a sense of security and safety, as indicated by most respondents during the interviews, particularly for many female resettlers who often found it relatively unsafe to walk or travel after dark in the old villages.

Many other respondents participated in the interviews also suggested that their health status and sanitation conditions improved significantly after resettlement. This is due to the fact that they have now access to cleaner water supply and sanitation facilities (see Figure 5.10), where these were unavailable or non-existent in the past. Most of my

respondents indicated that resettled villagers have also received health education on a regular basis which in turn increasingly improves their understanding of hygiene. Furthermore, my findings from the interviews also show that resettlers now have improved access to health services for treatment and preventive care both at the village and the district level, where these previously were inaccessible due to the absence of roads and transportation. Improved roads and transportation, therefore, have now made it possible for emergency or serious cases to be more easily referred to the provincial hospital in Thakek. One of the respondents described how difficult it was to receive healthcare treatment before the resettlement:

Our family was very poor back then. We couldn't afford to go to the hospital. Even if we could, there wasn't any hospital nearby our village and it was very difficult to get to the hospital in town because there was no road access and all. I have lost my three children as a result. And she further pointed out a difference made after the resettlement: If it had not been that I now live in this new village, I would die as well.

(Participants no. 7, personal communication on June 8, 2011)

Figure 5.10: Health Clinic in Phon Sa On Village



Source: The Author, 2011

In addition, access to markets and communication networks is considered important in creating positive changes for most people in the five resettled villagers. Ninety eight percent of respondents in the five villages indicated that they now have improved access to markets and communication networks, with the majority of these respondents placing special emphasis on the importance of such access to the reestablishment of their livelihoods (*see Figure 5.9*). Increased access to markets helps resettlers enhance their household economy by encouraging more business and trade within the resettled community and between villages. Many of my respondents suggested that resettled villagers appreciated the fact that they can now access markets and purchase primary goods or necessary products (*see Figure 5.11*), where it was historically inaccessible. Meanwhile, greater access to communication networks and channels (such as televisions, telephones and mobile phones) provided resettlers a number of advantages such as exchanging information and accessing employment. Some resettlers particularly welcomed the connection to this modern technology in order to maintain social networks as indicated strongly by most of my respondents during the interviews.

Figure 5.11: Resettled Villagers Improved Access to Markets



Source: The Author, 2011

Access to education facilities (such as nursery and primary schools – see Figure 5. 12) appears to be another important area of improvements that creates positive change for the people in the five selected villages. Of the total interviewed households, 84% suggested that their children have benefitted from provision of school facilities, with many of these parents emphasizing this as one of the key benefits (see Figure 5.9). As a result of improved access to education facilities, there has been a shift toward a more positive attitude with regards to education among respondents whose children now have access to education. Most of my respondents pointed out that formal education was often undervalued in rural areas because there was a lack of, or poor quality of, school facilities. Even when children had access to school, they often stopped attending at an early age in order to help their families with farming and other economic activities. In contrast, parents are now more optimistic about their children’s future as indicated through the increased investment on education. The majority of resettled parents who participated in this research revealed that they have sent their children to primary schools now and planned to have their children at least finish high schools.

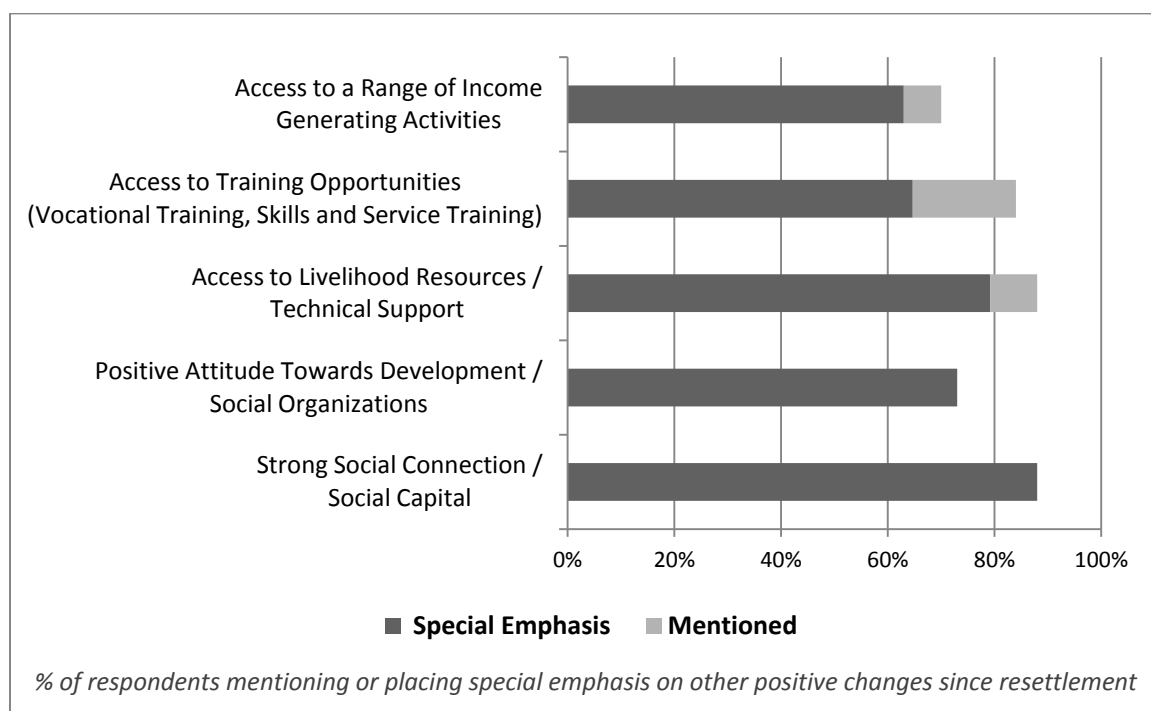
Figure 5.12: New School Facilities in One of the Resettlement Villages



Source: WB, 2011, p. 2

Moreover, my survey findings also show that improved access to education facilities particularly nursery schools also provides mothers with young children the chance to participate in other economic activities or other training opportunities, in addition to their traditional household activities. More than half of the female respondents who have young children have now started to engage in off-farm income activities such as textiles and handicrafts, weaving and food processing, whereas before they were unable to.

Figure 5.13: Other Positive Changes after Resettlement



Source: The Author's Fieldwork Survey, 2011

While increased access to basic infrastructure, markets and communication networks, healthcare and sanitation services, and education facilities plays a significant role in creating a more positive living environment for the population in the five resettled villages, respondents also identified other areas that further contribute to achieving more favourable livelihood outcomes. Figure 5.13 above shows that many resettled people have experienced stronger social connections and a more positive outlook towards social organizations since the resettlement, with 100% of these respondents

expressing their happiness and satisfaction. In part, this could be explained with reference to the project resettlement objectives being to have the 'project affected persons' participate in the consultation, planning and design process of their new settlement and production areas (NT2 CA, 2005). Resettlers were actively engaged in the resettlement site selection process, and thereby have chosen to remain close to the land where their spiritual ties were strong, and to stay close to their kin (WB & ADB, 2005).

During the interviews, many of my respondents explained that their social connection within their kin or between community members remain strong since the resettlement. Some people felt the connection even stronger as they now live closer to their families and friends in the new resettlement area, where in the past they lived a long distance from home. Some people also praised the power of communication networks that help maintain social connection between their kin who live far away from home.

Besides the informal social networks that remain strong for the resettled communities in the five villages, there has been a shift toward a more favourable attitude to the establishment of more formal social groups and organizations. Since the resettlement, there has been an establishment of many social groups and associations that aim to represent different interest groups such as the Nakai Plateau Village Forest Association (NPVFA or VFA), the Village Reservoir Fisheries Association (VRFA), and the Women's Group. During the semi-structured interview when asked '*how do you feel about the formation of social organizations namely the VFA or the VRFA?*' the majority of my respondents tended to indicate their appreciation and pride over the establishment of these organizations. Most respondents particularly expressed their approval of the establishment of VFA which is owned, developed and managed by and for the local people (NT2 Project, 2005d). These respondents pointed out that while the concept of 'development and management by villagers and for villagers' is entirely new to them, they strongly believe that this movement is an excellent step towards progressive development.

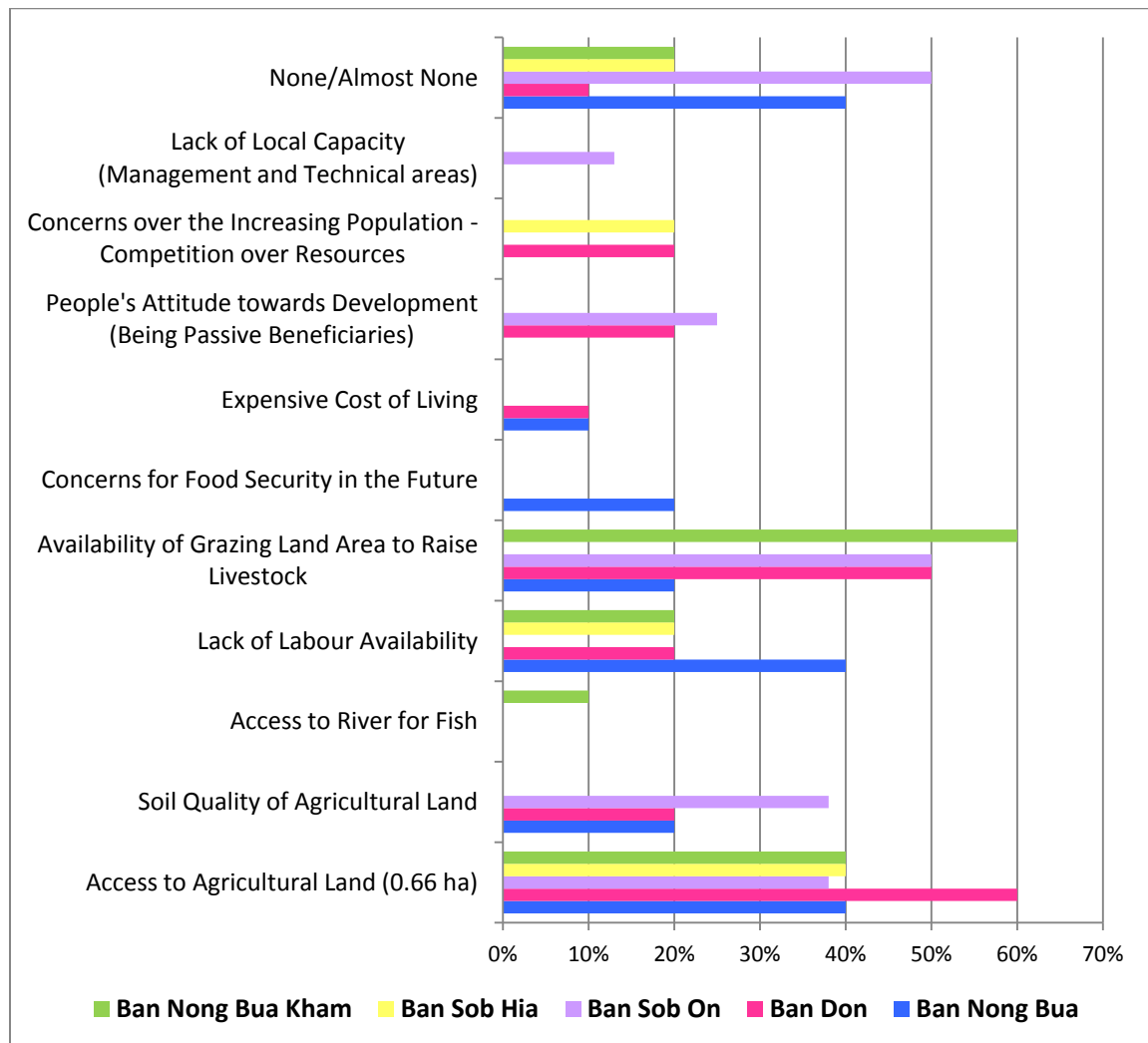
In addition, more than 70% of the resettled community members in the five selected villages appreciated greater access to a range of income generating activities, livelihood technical supports and other training opportunities, with most of these respondents suggesting that these changes further facilitate the achievement of positive livelihood outcomes. As discussed earlier in this chapter, the households have been introduced to a range of livelihood options (such as agriculture, livestock, fisheries, forestry and various off-farm activities) and they are encouraged to make their own decision on which combination of livelihood opportunities to pursue, depending on their interests, skills, experience, and the availability of labour within their family. Of the total interviewed households, more than 90% have engaged in various livelihood activities, with the majority of them saying that this has generated more income for family and improved their economic situation. Where physical challenges exist, resettlers can access livelihood resources, including livelihood technical support programs (such as a land use planning program, new farming techniques, soil fertility improvement program, livestock program, and fishing techniques) as well as access to production equipment and tools, all of which helps further improving quality and productivity. Figure 5.13 above shows that 88% of interview households have access to livelihood resources and technical support provided by the project, with most of these respondents expressing their satisfaction. In addition, there have also been a number of vocational training opportunities made available for the resettled people such as textiles and handicrafts, garments, salon, food processing, small machines repairing, carpentry, small-scale furniture processing as well as skill training and education. These training programs are valued by most respondents because they provide more options for them to make their living in addition to the five livelihood components.

5.3.4 Livelihood Challenges

Despite the fact that living standards are improving considerably, opening up new opportunities for the resettlers, and a number of other positive changes that have come about as a result of the project, respondents identified a number challenges that remain. Figure 5.14 below illustrates a list of livelihood challenges identified by households in

the five resettled villages when asked to express their concerns or describe any difficulties they have experienced in achieving livelihood reconstruction. These included restriction to agricultural land and grazing area for livestock, poor soil fertility, lack of working-age labour available within household family, and the increased cost of living. In addition, there were also other concerns over increasing population and competition over natural resources, as well as the lack of local capacity to manage those resources sustainably. Some family households, however, have experienced few difficulties, with 50% of respondents in Ban Phon Sa On and 40% of respondents in Ban Nong Bua conveying no particular concern with regards to livelihood challenges.

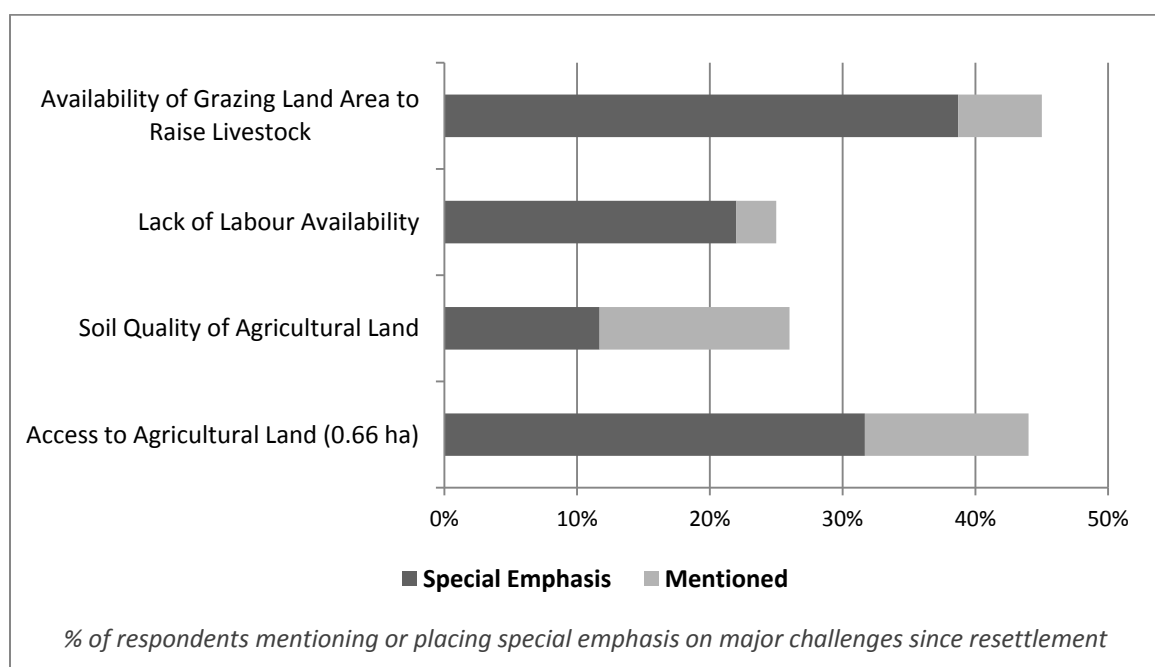
Figure 5.14: Challenges Identified by Resettlers in the Five Villages



Source: The Author's Fieldwork Survey, 2011

During the semi-structured interview households were asked to list up to four challenges that significantly affected their livelihoods and explained their choices. As shown in Figure 5.15, 45% of total interviewed households indicated their concerns over the inadequacy of available grazing land area to raise large livestock, with the majority of them expressing severe dissatisfaction. These respondents explained that in the past there was much greater grazing land available where they were able to raise herds of large animals (up to 70 buffaloes or cattle). In comparison, now there is much less suitable grass land currently available on the plateau to maintain a sustainable herd size. Many households had to cut down their large animal raising on the plateau significantly, and some families were even forced to stop raising large livestock completely as a consequence (Participant no. 20, personal communication on June 15, 2011).

Figure 5.15: Major Challenges after Resettlement



Source: The Author's Fieldwork Survey, 2011

Moreover, interviewed households also considered challenges associated with the agricultural component of the resettlement, including access to agricultural land, soil quality and the availability of working-age labour within household to participate in agricultural related activities. Of the total interviewed households, approximately 44%

regarded the limited access to agricultural land, particularly the 0.66 hectare land, as one of their major challenges, with many of these emphasizing the significance of this issue. Only 26 % of interviewed households struggled with the poor soil quality, with less than a half of those who experienced considering it as a major constraint to maintain agricultural quality and productivity. Finally, 25% of households encountered labour shortage, with almost all of these underlining the severity of this issue.

While all households were provided with a 0.66 hectare agricultural land as part of their compensation package, the land available is considerably less than many used before as part of their rotating agricultural system. Only a small number of interviewed households indicated that they are able to produce sufficient food to support for their family from this land. This restriction, however, has become more challenging for many resettled households, particularly for those households with larger number of people. Almost all households with larger family size were in agreement that the 0.66 hectare agricultural land is incapable of supporting self-sufficiency in rice or other subsistence crops, even with the best quality of soil fertility.

5.4 Summary

This chapter has presented the results of the field research, which was carried out in the five resettlement villages on the Nakai Plateau using semi-structured interviews, field walks and observations, informal conversational interviews and other secondary data sources. The results of the study have identified a range of changes in resettled communities' livelihoods in the selected villages from pre to post resettlement. With resettlement, the Nakai resettlers have improved access to better housing, roads, markets, communication infrastructures, community buildings and services, education and healthcare facilities. In addition, the resettlers have also increased access to a range of income-generating activities, livelihood training opportunities and other transitional support from the project. All of these changes are seen to be fundamental for reconstructing and improving livelihoods of the Nakai resettled communities.

CHAPTER SIX

RESULTS AND ANALYSIS II – NAKAI LIVELIHOOD ASSETS

6.1 Introduction

In the previous chapter, the results which are based on the comparison of livelihoods before and after resettlement, have identified a range of major changes experienced by the five selected resettlement villages following the resettlement period. Moving on, this chapter seeks to provide an analysis of livelihood assets based on the results presented in the previous chapter and the adoption of the DFID SLF as described in Chapter Three, particularly the livelihood assets component. This chapter investigates how these livelihood changes have influenced the Nakai resettled communities' access to livelihood capital assets, which is fundamental to help address the primary objective of this research. The chapter begins with a brief review of DFID's livelihood resources which divides livelihood assets into five different categories (Section 6.2). Then each of the livelihood assets – natural, social, human, financial and physical capitals – will be analysed in detail in each sub-section respectively. Finally, Section 6.3 provides a summary.

6.2 Livelihood Assets

Livelihood resources are fundamental to the establishment and maintenance – in the case of resettlement, reestablishment and development – of livelihoods. DFID (1999) categorized livelihood resources in two ways: livelihood assets and livelihood strategies. Livelihood assets are the types of capitals on which livelihoods are built and are the foundation of sustainable livelihoods (DFID, 1999). DFID based its approach on the belief that people require a range of assets to achieve positive livelihood outcomes (DFID, 1999, 2004; Krantz, 2001; Hussein, 2002; Carney, 2003). This is particularly important when access to such assets is limited or altered by the upheaval of resettlement. In such cases, the resettlers must foster and devise strategies to best use their assets, to ensure the reconstruction of their livelihoods in a sustainable manner.

Livelihood resources or assets are critical to the reestablishment and improvement of livelihoods during resettlement as they enable the environment that underpins the

resettlers' efforts to restore and improve their livelihoods (Cernea, 1998, 2000; Mathur & Marsden, 1998; Fernandes, 2000; McDonald, 2006). DFID (1999, 2004) referred to the five categories of assets as the 'asset pentagon', which includes natural capital, social capital, human capital, financial capital and physical capital (*see* Figure 3.2 on page 43). This section determines how the resettlers' livelihood assets have changed since resettlement based on the perceptions and perspectives of those who were resettled.

6.2.1 Natural Capital

DFID (1999, p. 11) defined natural capital as "the natural resource stocks from which resource flows and services (such as nutrient cycling, erosion protection) useful for livelihoods is derived." A wide range of resources could be classified as natural capital, from intangible public goods (such as the atmosphere and biodiversity) to divisible assets used directly for production (such as trees and land) (DFID, 1999). With respect to the restoration of sustainable livelihoods, natural capital is fundamental to livelihoods that are reliant on natural resources (DFID, 1999). However, Carney (2003) considered the importance of natural capital to extend beyond people's livelihoods, emphasizing that no human could survive without key environmental services and food produced from natural capital. Moreover, health and well-being are dependent upon the performance of ecosystems which can be threatened by human activities (Carney, 2003).

In the case of the Nakai Resettlement, natural capital is particularly important to the rural resettlers whose livelihoods were and still are reliant on the land-based resources, forests and the NT2 reservoir reserves for farming and other agricultural activities, for raising livestock, for harvesting food and non-timber forest products (NTFPs) and for fishing. However, it is not only the type of natural asset that is important to an analysis of natural capital. Access to and quality of the natural resources are also critical to the strength of the natural resource base (DFID, 1999; Carney, 2003). With regards to access, common issues for analysis include: (i) which groups have access to which types of natural resources; (ii) the nature of access rights to natural resources, (iii) the security of access rights; and (iv) the likelihood of encroachment (DFID, 1999; Carney, 2003). An

analysis of the quality of natural capital should include: (i) productivity; (ii) soil fertility; (iii) value of different types of trees; (iv) variation in yields; and (v) knowledge base (DFID, 1999; Carney, 2003).

Findings in Chapter Five clearly indicate that most Nakai resettlers in the five selected villages were and still are reliant on many forms of natural capital (such as land-based resources, forests, streams and rivers) for their livelihoods both before and after resettlement. To determine how the Nakai resettlers' natural capital has changed since resettlement, the following discussion is focused on the access and quality of productive land, forests and or forest resources and the NT2 reservoir, which are amongst the most important forms of natural capital with respect to the Nakai livelihood reconstruction.

Firstly, the resettlers' access to productive land has been restricted to the 0.66 hectare allocated for each family household for agricultural purposes. The agricultural land available is considerably less than many used before as part of their rotating agricultural system. Therefore, most resettled households, particularly for those households with a larger number of people, are now not able to produce sufficient food to support their family from this land, even with the best quality of soil fertility.

In addition, as was true before the project, the soil on the Nakai Plateau is also of relatively poor quality (WB & ADB, 2010). The fertility of agricultural land was explored during interviews with households who actively engaged in the 0.66 hectare agricultural land. Surprisingly, only a small number of households indicated that they struggled with the poor soil quality. In part, this could be explained with reference to the provision of technical support and agricultural advice by the project to prevent erosion and improve soil quality (NTPC Agriculture Development Advisor, personal communication on June, 2011). My survey findings also show that many resettled households valued the importance of technical assistance and agricultural advices, and applied their knowledge into practice in order to enhance the overall agricultural quality and productivity.

Secondly, findings from the field research suggest that there has been a significant reduction of available grazing land area to raise large livestock after resettlement. In the

past there was much greater grazing land available where they were able to raise herds of large animals. In comparison, now there is much less suitable grassland currently available on the plateau to maintain a sustainable herd size. Many households had to cut down their large animal raising on the plateau, and some families were even forced to stop raising large livestock completely as a consequence. Access to land-based resources appears to have been reduced significantly after resettlement.

Thirdly, although it was not apparent during the interviews that there has been a significant change with respect to access to forests and major impacts of such changes in the post resettlement period for the resettlers in the five selected villages, one of the monitoring reports from the WB and the ADB (2010) suggested that the availability and ease of access to forests have decreased since resettlement. Particularly, there has been a significant number of households complaints about reductions in access to NTFPs and the longer distances they need to travel to find them (WB & ADB, 2010). Prior to resettlement many villagers had easier access to the Nakai-Nam Theun National Protected Area (NPA). Between 2006 and 2009 more households used the forests to collect fuel wood, herbs and mushrooms, but the numbers collecting honey, rattan and bamboo products have decreased (WB & ADB, 2010). While traditional access to forests for food and NTFPs has decreased as a result of the project, information from my field observations and interviews suggests that there has been a new form of access to forest resources for resettled people on Nakai Plateau. My survey findings show that resettlers have gained more access to forest related employments and activities, including the Nakai Plateau Village Forestry Association (VFA). The VFA was established in 2003 and has a 23,400 hectare concession, in the mainly forested area surrounding the resettlement villages (NT2 CA, 2005, p. 45). The concession has been granted to the resettled people for their exclusive benefit for a seventy-year period and is to be managed by the association working with village based forestry groups under individual village community control (NT2 CA, 2005, p. 46). It has been suggested that VFA could provide a significant income for resettled households in the form of cash dividends and access to opportunities to earn money from community forestry-based activities. As

shown in Figure 5.6 in the previous chapter (on page 81), the information also suggests that more than 85% of total respondents in the five resettled villages viewed VFA as an important source of income, and it thus plays a vital role in household livelihoods.

Finally, the findings from the interviews suggest that the resettlers' open access to streams and rivers for fishing has been restricted in comparison to situation prior to resettlement. Instead, resettlers now have a new form of access to fishery resources, the NT2 reservoir. The right of access, laid out in the CA, is for those resettled to be the primary beneficiaries from fishery resources in the reservoir for the first ten years of its existence (NT2 CA, 2005, p. 38). This has been supplemented with the provision of boats, fishing gear and training on fish processing (NT2 CA, 2005). Resettled households can fish anywhere outside of the conservation zones. It was believed that this would provide all resettled households with a unique opportunity to develop livelihoods from fishing in the NT2 reservoir (WB & ADB, 2010). My survey findings also suggest that reservoir fisheries have developed into a major source of income for many resettled people in Ban Sob Hia, Ban Nong Bua Kham and Ban Sob On (*see* Figure 5.4 on page 84), where these villages situate close to the NT2 reservoir. Many of these resettled households explained that they were able to derive substantial monetary incomes and consumption from fishing due to the ease of access to and the high productivity of the NT2 reservoir.

In summary, productive land, forests or forest resources and the NT2 reservoir are amongst the most important forms of natural capital to the livelihood reconstruction of resettlers on the Nakai Plateau. The capacity of the Nakai resettlers to restore their livelihoods is largely reliant on their access to these natural resources. Traditional access to productive land for agricultural purposes and livestock has been significantly reduced in the new resettlement site. Despite the provision of technical training programs to help improve agricultural quality and productivity, the much smaller land allocation available poses a restriction to the resettlers' ability to produce sufficient food to support for their family. Furthermore, traditional access to forests for food and NTFPs and access to rivers for fish have been restricted as a result of the project. Balancing this,

new forms of access to forest and fishery resources have been created for the resettlers. Resettlers have now gained more access to forest related employments and activities, including the VFA. They have also become the primary beneficiaries from fishery resources in the NT2 reservoir for the first ten years of its existence which provides them with a unique opportunity to develop their livelihoods from fishing in the reservoir.

6.2.2 Social Capital

DFID (1999, pg. 9) provided a definition of social capital as “the social resources upon which people draw in pursuit of their livelihood objectives”. These social resources are developed in three ways: networks and connectedness, membership of formalized groups and relationships of trust, reciprocity and exchange (DFID, 1999, 2004; Carney, 2003). With respect to the broad framework of sustainable livelihoods, social capital has a multi-dimensional relationship with ‘Institutional Processes and Organizational Structures’ (for model *see* Figure 3.1 in Chapter Three on page 41). Carney (2003) further explained that when people are linked through norms and sanctions they may be more likely to form new organizations to pursue their interests than when they are not. Alternatively, strong groups help people to shape policies and ensure that their interests are reflected in legislation (DFID, 1999, 2004; Carney, 2003).

According to DFID (1999, 2004), Krantz (2001), Hussein (2002), and Carney (2003), social capital is important because mutual trust and reciprocity lower the costs of working together; hence, it has a direct relationship with other forms of capital. By sharing knowledge, natural capital can be better managed and human capital can be enhanced (DFID, 1999, 2004; Krantz, 2001; Hussein, 2002; Carney, 2003). By sharing tasks, financial capital can be improved by making the local economy more efficient (Krantz, 2001; Hussein, 2002). By forming groups, the community can push for improved infrastructure, thus developing physical capital (Carney, 2003). However, it is important to note that social capital is not always a positive power, especially if some individuals are excluded from the social network or influencing group (Krantz, 2001; Hussein, 2002; Carney, 2003).

In the case of the Nakai resettled communities in the five survey villages, social capital is particularly important for the livelihood reconstruction of resettlers, as it can be an essential precursor for gaining access to other livelihood capitals such as financial and human capitals. Information from the interviews and field observations suggests that most Nakai resettled households in the five selected villages could rely on their families, friends, relatives and neighbours for exchanged physical labour (human capital) in agricultural activities as well as other social or communal functions. Resettled people can draw on social connections with families and friends at times for food, shelter, healthcare and other supports when financial capital is in short supply. Interestingly, findings from the interviews also suggest that this type of capital is even more important for the vulnerable households lacking adult labour. All the three vulnerable households that participated in this research indicated that they are highly dependent on their close relatives or sometimes neighbours who live nearby for assistance with food and other social support.

To determine if the Nakai resettlers' social capital has been strengthened since resettlement, the following discussion is focused on the networks and connectedness between their families, friends, and the community members; the outlook towards formalized groups; and relationships of trust between the resettled community members and local authorities.

The ability of resettlers to establish or maintain their regular contact with families and friends after resettlement indicates the sense of connection, the basis for their informal safety net, and the ability of individuals to access others for social support. Survey findings in Chapter Five suggest that the social connection within families, between friends and neighbours and amongst the community members remains strong for many resettled people in the five surveyed villages. Only a very small proportion (2%) of the interviewed respondents showed that they experienced disruption to their social networks. Instead, the connection is even stronger for many resettled people as they now live closer to their families and friends in the new resettlement area, where in the

past some family members lived a long distance from home. This is due to the improved access to communication networks such as roads, transport, telephone lines and mobile phones, which previously were unavailable. As indicated by one of the resettlers during the semi-structured interview:

Now that we have access to telephones, it is so convenient for us to stay connected with families and friends. ...Although we are physically miles apart, we still feel close at heart.

(Participant no. 14, personal communication on June 14, 2011)

Clearly, following the resettlement, improved access to communication networks has enhanced resettlers' ability to maintain their social networks with their families, friends and relatives.

In addition to the informal social networks, the attitude towards formalized groups and social organizations was also explored during the interviews to help assess the strength of social capital of the Nakai resettlers. Since resettlement, many social associations and community-based units have been established that seek to represent different interest groups. The Village Forestry Association (VFA) on the Nakai Plateau, for instance, aims to enable resettlers on the plateau to develop and manage forest resources 'by them and for them', which in turn will provide them with improved livelihoods and incomes (NT2 Project, 2005; Government of Laos (GOL), 2009). All resettled households are eligible to register with their village forestry group in their villages and will become a member of the VFA. In addition, the Village Reservoir Fishery Association (VRFA) acts as a representative body for the fishery community in each village, which aims to manage and develop reservoir fisheries resources for the overall benefit of resettlers (GOL, 2009). Again, the head of any resettled household is eligible to register with their village fisher groups in their villages to become a member of VRFA (GOL, 2009). Furthermore, there are also other formalized groups representing different gender and interest groups such as the women's groups and the ethnic minority groups. However, as the majority of interviewed households participating in this research are engaged more in

VFA and VRFA, the following discussion on the outlooks towards formal social organizations will be based on these two associations.

As discussed in the previous chapter, one of the positive changes identified by interview respondents is a shift towards a more positive attitude towards formal groups and social organization. My survey findings show that the majority of respondents indicated their appreciation on the establishment of these new social organizations, particularly the VFA and the VRFA. Those who responded explained that they have not only enjoyed the economic gains from being a member of these organizations through employment opportunities and other forms of financial benefits, but they have also regarded the conception of 'development and management by villagers, for villagers' attached to these organizations' planning principles and strategies even more positively and valuably. According to one of the local villagers, this concept is absolutely new to the local people, yet they strongly believe that this type of movement is an excellent step towards progressive development. In light of these findings, the resettlers' outlook towards social groups and organizations appear to be positive and optimistic.

Another attribute incorporated in this analysis to determine the strength of Nakai resettlers' social capital, is the relationships of trust, specifically the relationship of the resettled community members with their local authority or government – the village committee. The village committee is the first point of contact with authority for the resettled community. It is a formal political group elected by the villagers, which represents the issues of all members of the village and is the main channel of communication between the village and higher levels of government. The relationships of trust between the resettled community and the village committee were explored during the semi-structured interviews. When asked '*how do you feel about the village committee and its administration or management since the resettlement?*' respondents tended to indicate conflicting views. Some villagers strongly felt that the village committee has administered the village plan effectively in creating a sense of harmony and unity amongst the community members. Some resettlers considered the village

committee's role as important in carrying out the resettlement plan, in ensuring that the basic rights and the interests of the villagers are protected, concerns adequately addressed and entitlements delivered. Several resettlers explained that the village committee has assisted the resettlers in smoothing the grievance process (with regards to information sharing) and addressing complaints from resettlers (with regards to following up progress). However, there were also several cases where the interviewee indicated a sense of distrust with their local government officials, which suggest a breakdown in the relationship of trust between resettlers and the village committee. Some respondents explained that there has been a lack of information sharing on how the village funding was being spent. Some even mentioned that they heard that the local village government embezzled the money from the village development fund that is owed to the community. Several respondents expressed concerns over the lack of local capacity in village planning and management. To most resettlers, these factors are important in contributing to the failure of community-based initiatives such as the village development fund. Considering these findings, it is reasonable to conclude that the relationship of trust between the resettled community members with their local authority or government has declined since the resettlement.

To sum up, social capital is important for the livelihood reconstruction of the Nakai resettlers, as it can be an essential precursor for gaining access to other livelihood capitals. The resettled people on the Nakai Plateau can still rely on their families, friends, relatives and neighbours for human capital (sharing information and knowledge, and physical labour), and they can draw on social connections with families and friends at times for food, shelter, healthcare and other supports when financial capital is in short supply. While the informal social networks between their kin and friends, and the attitude towards formalized groups proved to be strengthened significantly after the resettlement, the relationships of trust, specifically the relationship of resettled community members with their local authority or government – the village committee appeared to be relatively declining.

6.2.3 Human Capital

Throsby (2001) defined human capital as the embodiment of skills and experience in people that represents a capital stock which is crucial in producing output in the economy. Human capital is not defined simply in physical terms, but is viewed as a process in which the productive quality of human beings is integrally involved (Sen, 1999). With regards to sustainable livelihoods, human capital represents the skills, knowledge, ability to labour and good health that together enable people to achieve their livelihood objectives by pursuing different livelihood strategies (DFID, 1999, 2004; Krantz, 2001; Hussein, 2002; Carney, 2003). Restoring and enhancing human capital to ensure that all resettlers have access to education, health services, and training in their new environment are essential components of resettlement (Cernea, 1998; Mathur & Marsden, 1998; Duan & McDonald, 2004; McDonald, 2006). Ensuring that the affected community is knowledgeable of policies, legislation and regulations that may affect their ability to restore their livelihoods is part of guaranteeing the strength of human capital (McDonald, 2006).

According to DFID (1999), support to enhance human capital can be both direct and indirect. Direct support to human capital development can be achieved through the developing of health/education/training infrastructure and personnel, and the building of relevant knowledge and skills (DFID, 1999; Krantz, 2001; Hussein, 2002; Carney, 2003). However, the enhancement of human capital will only achieve its aims if people themselves are willing and able to invest in their own human capital development by attending training sessions or schools, and accessing preventative medical services (Carney, 2003). If people are prevented from doing so by adverse structures and processes (such as formal policies or social norms that prevent girls from attending school) then indirect support to human capital development will be particularly important (Carney, 2003). Indirect support to human capital development can be gained through transforming structures and processes such as reform of health or education

policies, training organizations, and changes in local institutions or culture norms (DFID, 1999; Krantz, 2001; Hussein, 2002; Carney, 2003).

To determine the strength of human capital in the case of the Nakai resettled community since the resettlement, the following discussion will be focused on two main components: health and education or training and the support from the project to restore and enhance human capital. During the research process, health and education or training were explored through semi-structured interviews with 43 resettled households in the five selected villages, field observations, and interviews with a local doctor as well as the capacity building officer from the project company. In addition, some general health and or education statistics (health checks and education surveys) for the relocated population on the Nakai Plateau were also reviewed to gain a better understanding of the factors that contribute to human capital in the region. With regards to the health component, common issues for analysis include: (i) changes in health infrastructure, (ii) access to health care services and sanitation facilities (including health training programs), and (iii) health conditions of the resettled population since the resettlement. When investigating education and training, the following factors were considered: (i) changes in school infrastructure, (ii) access to education facilities and other training programs after resettlement.

Before the commencement of the NT2 project, the inaccessibility of the plateau made it difficult for households to receive basic health services and to see a qualified doctor or midwife. With the exception of periodic immunization campaigns, maternal and child health services were absent and women and children experienced very high levels of morbidity and mortality (NT2 Health Checks and Survey, 2008; WB & ADB, 2010). Due to the absence of roads and transportation, emergency cases could not be brought in time to the district hospital. Health facilities consisted of one district hospital, five health centres and one small malaria unit, under the district health office (NT2 Health Checks and Survey, 2008). The health centres were inadequately staffed and poorly stocked with essential medicine and first aid supplies. Most villages had a designated Village

Health Volunteer, but the volunteer seldom had the necessary medicines or skills (NT2 Health Checks and Survey, 2008). The baseline data suggested that poor sanitation and understanding of hygiene, in addition to the lack of access to clean water, further compromised health outcomes. Water was taken mainly from the river and, in some cases, natural springs. Only large villages had regular access to potable water sources throughout the year. Few households boiled water for drinking. As a result, plateau households fared poorly on many health indicators. Child malnutrition and the prevalence of parasitic infestations were unacceptably high, even compared to other poor households in Lao PDR (NT2 Health Checks and Survey, 2008).

In comparison to the situation before resettlement, findings from the project health reports suggested that the health status of the resettled people on the Nakai Plateau improved significantly in the post-resettlement period. Specifically, the levels of helminthes infections and anemia in the population have improved over the last five years (NT2 Health Checks and Survey, 2008, p. 7). More recent health reports have also indicated the significant improvements in mortality and morbidity rate amongst women and children in the resettled villages on the Nakai Plateau (WB & ADB, 2010). These results have also been supported by a local doctor who also participated in this research process and findings from the interviews indicating the majority (83%) of family households who witnessed the remarkable improvement in access to health clinic (*see* Figure 5.9 in Chapter Five on page 91), and their overall improvement in their health status.

The reasons attributable to these changes are improved access to better housing, safe water supply and markedly enhanced sanitary conditions in the villages in the Nakai resettlement area, where these were unavailable in the past (NT2 Health Checks and Survey, 2008; WB & ADB, 2010). In the new resettlement area, two new health centres were built (one located on the northern territory, the other on the southern territory of the Nakai Plateau) and existing health facilities were refurbished. Essential medical and office equipment as well as vehicles and ambulances were provided. Other support,

including building the capacity of the public health institutions, training for health staff, malaria, *tuberculosis* and sexually transmitted infections control programs and health education are on-going (NT2 Health Checks and Survey, 2008; WB & ADB, 2010).

Findings from the interviews also indicate that the majority of resettlers in the five survey villages now have improved access to health education and other health training programs that promote the adoption of healthy lifestyle on a regular basis. According to Phalixay, a local doctor in Ban Sob On, various health educations and on-going training programs have been made available to the resettlers on the plateau to improve their awareness and understanding of sanitation and hygiene, and to eventually encourage healthy behavioural change (Phalixay, personal communication on June, 2011). This is supported by my survey findings with the 43 resettled households in the five survey villages, who recognized the benefits of having access to these resources (such as health information and facilities). These respondents pointed out that there has been evidence of behaviour change among resettlers on the plateau to improve their health (such as washing hands before meals, and boiling drinking water). Moreover, as a result of the infrastructure improvements, the local doctor explained that patients now have improved access to health services for treatment and preventive care, whether at the village or the district level. Having ambulances and better quality roads means that serious cases can be more easily referred to the provincial hospital in Thakek. Overall, these findings suggest positive changes in terms of health infrastructure, access to health care services and sanitation facilities (including health training programs), and as a result health conditions of the resettled population have improved significantly since the resettlement.

With regards to education, the situation before resettlement was inadequate and poor. According to the project's baseline study, most household heads on Nakai Plateau were illiterate, and only 10% had progressed beyond primary school (NT2 Project, 2005a, p. 14; WB & ADB, 2010, p. 31). Literacy rates were even lower among women and the elderly (WB & ADB, 2010). Education facilities were scarce and of poor quality. Even

when children had access to school, they often stopped attending at an early age in order to help their families with farming and other economic activities (NT2 Project, 2005a). In 1998, only 31% of 5-9 year olds, 10% of 10-14 year olds, and 6% of 15-19 year olds were enrolled in schools (NT2 Project, 2005a, p. 26). Even when children were enrolled attendance was often irregular (NT2 Project, 2005a).

Since the resettlement, the project's education program has been developed with the aim of improving both on the construction of education infrastructure and capacity building. Sixteen primary and sixteen nursery schools were either built or renovated. Education support is on-going, in conjunction with the District Education Office and Village Parent Student Associations (WB & ADB, 2010). Kindergarten teachers and food support for school children also continue to be provided (WB & ADB, 2010). These have led to a significant improvement in both school attendance and achievement which has been witnessed both relative to the baseline and over the course of the project (WB & ADB, 2010). For instance, the enrolment of children overall had risen to about 90% in 2009 which suggests that about 700 children, who otherwise would likely have missed out on an education altogether, are now enrolled in school (WB & ADB, 2010, p. 31). In addition, according to the recent project quarterly socio-economic survey report (2011, p. 15), 91% of primary age students (age 5 to 11 inclusive) are enrolled in school. The enrolment ratio for 10 and 11 year olds is more than 96% indicating almost all students complete primary school (NT2 Quarterly Socio-Economic Survey, 2011, p. 15).

The findings from the fieldresearch similarly suggest a number of positive changes brought about by the development of education infrastructure and improved access to school facilities (such as nursery and primary schools) in the new resettlement area. One of the benefits noted by the resettled communities is that there has been a shift toward a more positive attitude with regards to education among respondents whose children now have access to education. Most of my respondents pointed out that formal education was often undervalued in rural areas because there was a lack of or poor quality of school facilities. Even when children had access to school, they often stopped

attending at an early age in order to help their families with farming and other economic activities. In contrast, parents are now more optimistic about their children's future with their current investment on education as one of the respondents said:

What I love most about living in a new resettlement area is that there is now better access to school for my children. We would like to invest in our children's education so that they can have a brighter future.

(Participant no. 6, personal communication on June 7, 2011)

Another respondent further said:

I am so happy that my daughter now has the opportunity to receive a proper educational training. I truly believe that she will become a fine teacher.

(Participant no. 7, personal communication on June 8, 2011)

Amongst other things, education can benefit the economy of the household by raising an individual's capacity to earn. As claimed by Sen (1999), education can make an individual more efficient in commodity production, which can add to the value of production in the economy and to the income of the person who has been educated. Above and beyond this, increased education can offer more intangible benefits to the individuals in the long term by enhancing their self-esteem or self-respect, improving citizenship, social status and their sense of empowerment (Mansperger, 1995; Scheyvens, 1999). Mill (1965, cited in Cowen & Shenton, 1995) and Sen (1999) also suggested that education can enhance human intellect and capabilities, thereby enabling them to choose or decide their own path of life. This suggests that human capital is being strengthened as resettled people themselves are willing and able to invest in their own human capital by encouraging their children to receive formal education, to enhance their knowledge, to raise their capacity to earn in the longer term and to develop their capabilities to choose their own development path in the future.

Furthermore, my survey findings suggest that improved access to education facilities particularly nursery schools also provides mothers with young children the chance to

participate in other economic and social functions, in addition to their traditional household activities. More than half of the female respondents who have young children have now started to engage in off-farm income activities such as textiles and handicrafts, weaving and food processing, whereas before they were unable to. Many of these female respondents then explained that by participating in these income generating activities they felt more self-confident about themselves that they are able to contribute to improving the household economy.

One of the reasons attributable to these positive changes is that the resettled people on Nakai Plateau have now improved access to informal education and other livelihood training programs (NTPC Community Development Officer, personal communication on June, 2011). According to Carney (2003), formal education is certainly not the only source of knowledge-based human capital. Alternatively, informal education is also crucial to strengthening human capital when information or knowledge generated is relevant to existing or potential future livelihood strategies (Carney, 2003). Findings from the interviews indicate that there have been on-going training programs made available to Nakai resettled communities to further support the existing five livelihood components such as land use planning program, soil quality improvement program, livestock program, fishing techniques, new methods of farming, crop varieties or technologies. Moreover, there have also been a number of vocational training opportunities such as textiles and handicrafts, weaving, tailoring, salon beauty, food processing, small machine repairing, and carpentry. Information from the interviews also suggests that most resettled people have been encouraged to participate in these training programs. Many of those who participated were in agreement that these new training programs have been valuable to them. One of the respondents explained the usefulness from the experience with one of the training sessions she attended:

I have attended a number of training programs myself and so have many of my friends. I definitely think these trainings are very useful. Well, say...I still use the skills from the tailoring program to tailor to make a living.

(Participant no. 2, personal communication on June 6, 2011)

Another continued to express her happiness in these training programs:

I am particularly happy about the fact that now the people here can access to various training opportunities, which encourages people to pursue different livelihood activities according to their interests. This is something that we need in order to be able to sustain ourselves.

(Participant no. 35, personal communication on June 17, 2011)

In brief, the Nakai resettled communities' human capital was investigated through a number of indicators: changes in health or education infrastructure, access to education/health care services and sanitation facilities (including health and/or education training programs), and health or education status of the resettled population since the resettlement. By evaluating these criteria, it is reasonable to conclude that the level of human capital for the Nakai resettled households has improved since the resettlement. The health and sanitation conditions were found to be significantly enhanced due to the development of health infrastructure and improved access to health care services and sanitation facilities. Increased access to health education and training has also contributed to improved understanding about hygiene and sanitation, thus encouraging healthier lifestyles. In addition, there are a number of positive changes with respect to education. These include improvements in school infrastructure, access to education facilities, and other livelihood trainings.

6.2.4 Financial Capital

DFID (1999) defined financial capital (also known as economic capital) as the financial resources that people use to achieve their livelihood objectives. This definition has been adopted to capture an important element of livelihood reconstruction – the accessibility of cash or in kind that enables people to adopt different livelihood strategies (DFID, 1999, 2004). DFID (1999) categorized financial capital into two main types: (i) available stocks and (ii) regular inflows of money.

Savings are the preferred form of 'available stocks' since it does not involve reliance on other parties (DFID, 1999; Krantz, 2001; Hussein, 2002; Carney, 2003). In the event of

resettlement, compensation can be regarded as an important form of financial capital because it provides the basis for reestablishment of physical infrastructures or productive assets necessary for restructuring their livelihoods (Duan & McDonald, 2004). However, for many resettlers compensation can fall short of the finance required to rebuild physical capital (McDonald, 2006). In such cases, loans from family and friends, relatives, credit cooperatives and banks become an essential financial stock.

The most common inflow of money comes from earnings (DFID, 1999). DFID (1999) added that pensions, money transfers from the state and remittances are also common forms of financial inflows. To be a valuable contribution of financial capital the inflows must be regular (Krantz, 2001; Hussein, 2002; Carney, 2003). In the event of resettlement, regular inflows of money depend on the resettlers' ability to re-establish gainful employment (Duan & McDonald, 2004; McDonald, 2006). However, re-establishing a position that generates a regular and reliable income can be difficult and thus, resettlers can often be reliant on compensation. Compensation may be provided in intervals to minimize the chance of resettlers mishandling the funds. In such cases, if the money is provided in regular intervals, compensation becomes a regular inflow rather than a financial stock (McDonald, 2006).

Financial capital is regarded as the most versatile of the five types of capital for many reasons (DFID, 1999; Krantz, 2001; Hussein, 2002; Carney, 2003). First, it can be converted into other types of capital (such as physical – house, vehicles; human – health and education; and natural – land) (DFID, 1999; Krantz, 2001; Hussein, 2002; Carney, 2003). Second, it contributes directly to the achievement of livelihood outcomes (when food is purchased to reduce food insecurity) (DFID, 1999; Krantz, 2001; Hussein, 2002; Carney, 2003). Finally, it can be transformed into political influence thus allowing active participation in organizations that formulate policy, legislation and govern access to resources (DFID, 1999; Krantz, 2001; Hussein, 2002; Carney, 2003). For these reasons, financial capital is the most desirable form of capital but is often the least accessible (Cernea, 1998; Mathur & Marsden, 1998; Fernandes, 2000). Indeed, in many

resettlement contexts, all other forms of capital were considered a means of gaining financial capital (McDonald, 2006).

For the case of Nakai resettled communities, the strength of financial capital since the resettlement was explored in this research using the following categories: (i) earnings or earned incomes (ii) savings and (iii) access to financial resources.

Earnings or earned incomes are the most common form of financial capital (DFID, 1999; Carney, 2003). Before the NT2 project, the average income of resettled villagers was 1.6 million Lao Kip per household per year which was beneath the national poverty line, and well below the international \$1.25 per day poverty line (WB & ADB, 2010, p. 28). This partly could be explained by the poor living conditions and lack of access to basic infrastructure and other livelihood resources as discussed earlier in the chapter. Drawing from the projects' living standards measurement survey reports from 2006 to 2009 (NTPC, 2009), the data suggested that most resettled households on the Nakai Plateau are now rapidly adapting to their new living environment and taking advantage of livelihood opportunities, leading to a significant improvement in household incomes for many resettled households since the resettlement.

In addition, McDonald (2006) argued that resettlers are most likely to achieve their earnings by participating in the workforce or acquiring regular, legitimate and secure employment. This is also manifested in the case of the Nakai resettlement where the information from the field research suggests that many resettlers now have a greater access to a range of livelihood opportunities, including project-related employment. My survey findings indicate that more than 90% of the interviewed households have engaged in various cash-earning livelihood activities, with the majority of them saying that this has generated more income for their family and improved their economic status compared to the pre-resettlement situation. These findings signify that household income is one form of financial capital that has been strengthened following the resettlement.

Savings are the other form of financial capital included in this analysis. According to McDonald (2006), savings are a secondary form of capital that usually arises when earnings exceed expenditure. They can be held in several forms such as cash, bank deposits, or liquid assets such as livestock, jewellery (DFID, 1999). Before the resettlement, livestock (buffalo and cattle) was traditionally the most common form of savings for many households on the Nakai Plateau, while fewer households kept their savings in the form of cash or bank deposits (WB & ADB, 2010). Following the resettlement, many resettled households remain accumulating their buffalo and cattle as a store of wealth and insurance, as well as a source of cash income (WB & ADB, 2010). There are about 35% of resettled households that owned cattle and buffalo in early 2010, and these households had on average more than four animals, similar to figures before the resettlement (NT2 project, 2005a; WB & ADB, 2010). However, my interview findings suggest a contradiction with respect to this type of savings. The information during the interviews suggests that the inadequacy of available grazing land in the resettlement area has posed a major challenge on the resettlers' ability to continue raising livestock. Many households in the five survey villages had to cut down their large animal raising on the plateau, and some families were even forced to stop raising large livestock completely as a consequence. This, as a result, could be an indication of weakening the resettlers' ability to store or maintain this form of their wealth after the resettlement.

While a traditional form of savings such as the accumulation of large animals has decreased as a result of the project, my survey findings suggest that a number of resettled households on Nakai Plateau have now increasingly shifted to other forms of savings such as bank deposits or investment in physical as well as productive assets. Of the total 43 interviewed households, almost 40% now have a bank account with the local commercial bank; the majority of them with more than five million Lao Kip in their bank account. In addition, from field observations, most of the resettled households now owned physical assets – approximately 95% owned a television, a telephone, a refrigerator, a motorbike and almost 30% owned a van, where these respondents

indicated that they had none prior to the resettlement. In light of this information, it is reasonable to suggest that savings in the form of bank deposits or physical assets have generally increased after the resettlement.

In addition to earnings and savings, access to financial resources was another important element included for the analysis to help explore the strength of financial capital of the Nakai resettled communities after the resettlement. Traditionally, many poor households in rural areas in Laos including people on the Nakai Plateau had limited access to banking or other formal financial systems. Money borrowed from a financial institution usually has an interest rate attached. The higher the interest rate, the more difficult it is for poor people to access financial capital. Microfinance was generally, and still remains, the mainstream financial service that provides low-income people in many poor rural communities in Laos with access to loans or financial resources. However, the information from the interviews indicates that access to microfinance was less common for the resettled households before the resettlement. Many resettled households usually relied on friends or relatives, where in most cases the interest rates are low or zero. Some households mentioned that at times they sought loans from local moneylenders, whose interest rates were often very high. While moneylenders could be demonized and accused of usury, many resettled households explained that their services were convenient and fast and they could be very flexible when borrowers run into problems.

Following the resettlement period, resettlers on the Nakai Plateau were introduced to several community savings and loans schemes, which intended to provide resettlers with improved access to financial resources (NT2 Project, 2005e). During the interviews when asked about the general awareness or understanding of any community savings or credits scheme available in the resettlement area, most of the respondents usually referred to the women's microfinance scheme, which has been regarded as a women-empowering institutional mechanism to assist in the transition to a market economy (NT2 project, 2005e). However, survey findings during the field research suggest the

women's microfinance project was attractive to only a small number of households (approximately 20%), particularly those who owned and ran small businesses. Most of these respondents expressed satisfaction with regards to the ease of access and the services attached to the scheme. Many of those who were not part of the initiative explained that they did not see the need to borrow money from other financial service organizations, partly because they already have access to other financial sources (such as families and friends). In addition, some households mentioned that they did not quite understand this newly introduced financial system, thus they were not completely convinced.

Despite these responses, my survey findings suggest that there has been an increase in options for resettlers to access financial resources since the resettlement. As discussed earlier in Section 6.2.2, the improvement of the social networks and connectedness has strengthened the traditional source of financial capital. In other words, resettlers now have greater access to financial capital from families, friends and relatives. Moreover, findings from the interviews also suggest that the improvement of road access and telecommunication infrastructure after the resettlement has also enhanced the ease of money transfer and remittances from families living outside the resettlement area. Additionally, the microfinance scheme could potentially become an important finance resource for the resettlers on the plateau in the future. The current limited use of the microfinance scheme does not suggest its complete failure. Considering the fact that the concept is relatively new to most resettled households on the plateau, it will take more time with more support and on-going training for the resettled people to have a better understanding of the concept, until they gain more confidence in it.

In summary, three major types of financial capital have been explored in this section – earnings, savings and access to financial resources. Generally, financial capital is shown to have strengthened in the five resettled villages. For most households, earnings have been increased and savings have been improved following the resettlement period. While traditional form of savings such as the accumulation of large animals has

decreased as a result of the project, other forms of savings such as bank deposits or investment in physical as well as productive assets have risen. With regards to access to financial resources, findings suggest that there have been more options available to resettlers to gain access to financial resources since the resettlement. Taking these criteria into account, it is reasonable to conclude that the resettlers on the Nakai Plateau are facing an environment of improved financial capital after the resettlement.

6.2.5 Physical Capital

Throsby (2001) defined physical capital as the stock of real goods such as plants, machines and buildings that contribute to production. In this sense, physical capital takes the form of infrastructure and producer goods (DFID, 1999, 2004). Infrastructure is defined as any changes to the physical environment that help people to meet their basic needs (DFID, 1999, 2004). Producer goods are the tools and equipment used to increase productivity (DFID, 1999, 2004). Physical capital is directly related to two of the four types of capital outlined in this chapter: (i) human capital and (ii) financial capital. First, where physical capital comprises basic infrastructure to sustain life, then supporting infrastructure can be correlated to quality of life. For example, without clean water and sanitation, the strength of human capital is diminished. Second, without functional roads and transport, access to markets is removed. Hence, the capacity of persons to sell their goods is decreased, which weakens financial capital. Moreover, without tools, fertilizers and pesticides, production capacity is reduced. Once again financial capital is affected. Clearly, physical capital is important to livelihoods.

The status of physical capital was assessed using the semi-structured interviews, field observations and secondary information obtained during the field research. To help determine the strength of physical capital in the case of the Nakai resettled communities since the resettlement, several components of physical capital were explored: (i) shelter (or housing), (ii) road access and communication networks, (iii) electricity supply, (iv) sanitation and water supply, and (v) production equipment.

According to DFID (1999), Carney (2003), Duan and McDonald (2004) and McDonald (2006), the provision of secure shelter is one of the most important components of physical infrastructure essential for the development of sustainable livelihoods, as it provides the people with protection, security and a place to live and work. Hence, the reconstruction of the resettlers' houses is crucial to the reestablishment of their livelihoods. In the case of Nakai resettlement, resettlers were entitled to receive a new house or to rebuild their existing house on a new plot with the support of the project company (NT2 Project, 2005c). To comply with the NT2 Concession Agreement (2005), the quality of housing is also required be equal to or greater than the condition prior to the relocation (NT2 Project, 2005c). In addition, to ensure a design appropriate to ethnic or other concerns of the householders, the resettlers were fully involved in the construction of their own house (NT2 Project, 2005c). By having the local villagers participating in the construction of their own home, they would potentially more easily acquire a sense of belonging to the new sites (NT2 Project, 2005c).

As shown in Figure 5.8 (*see page 89*), almost all of interviewed households indicated major improvements in housing as one of the positive changes experienced after the resettlement. Many of these respondents explained that their housing in the old villages was inadequate and the conditions were usually very poor. Since the resettlement, for many of the households, improved housing is regarded as the primary physical infrastructure necessary for them to rebuild or reconstruct their lives and their livelihood. Many respondents also expressed their strong sense of control and ownership of their new home and to their new place, and as they were engaged in the entire process of siting and building their new houses, their new villages. As one of the respondents commented:

I am sure that I can speak for many resettled villagers here. We really love our new houses because we built them the way we wanted. We have grown to love our new home now. This is our place we don't want to leave this place again.

(Participant no. 24, personal communication on June 16, 2011)

This comment suggests that having resettlers participate in the process of constructing their own home has also contributed to important social benefits. Because they invested time and energy in establishing their own place, their sense of ownership and inclusion is likely to be strengthened. Overall, these findings suggest a significant improvement in housing, and thus shelter as one type of physical capital has improved with resettlement.

Other forms of physical capital such as road access and communication networks are also considered important for the development of sustainable livelihoods (DFID, 1999, 2004). McDonald (2006) suggested that the length of roads in each area is an indication of whether resettlers have access to markets to sell produce or to find work. The resettlers' use of these roads and specifically transport vehicles along these routes can also reveal their capacity to access markets (McDonald, 2006). Furthermore, fixed or mobile phones are an important means of communication for the resettlers to exchange information, maintain social networks and access work. The capacity of telephone lines or mobile phones in each county suggests the possibility of communication and the use of this facility suggests its suitability (McDonald, 2006).

In the case of Nakai resettlement, the availability and accessibility of these two forms of physical capital prior to the NT2 project appeared to be very minimal. The baseline data indicated that the Nakai Plateau was historically very remote (NT2 Project, 2005a). Most resettled villages had no road access, and some were accessible only by boat (NT2 Project, 2005a). During the wet season, the plateau could virtually be inaccessible, which made it more difficult for villagers to access market or other public facilities (NT2 Project, 2005a). Moreover, findings from the field research suggest that access to communication or information technology such as televisions, telephones or mobile phones for most resettled villages was almost non-existent prior to the resettlement. The isolation from communication technology made it more difficult to maintain their social connections with family and friends who lived outside the Nakai Plateau.

In comparison to the situation prior to the project, the information from field research suggests that there has been a significant improvement with regards to these two types of physical capital after the resettlement. Firstly, almost all respondents in the survey indicated the improved 'all weather' road access to town and other villages in the new resettlement area was one of the major positive changes (see Figure 5.9 on page 91). These respondents explained that the improvement of road access has enhanced the ease of access to markets, which in turn improves their household economy by encouraging more business and trade within the resettled community and between villages. They further pointed out that they can now access markets to purchase primary goods or necessary produce, where it was historically inaccessible. In addition, there is also an indication that resettlers now have greater access to affordable transport in the new resettlement area. Information from findings shows that almost every resettled household owned at least a motorbike as an important means of transportation, while wealthier households now owned a truck or a van. The use of these vehicles has strengthened the resettlers' capability to gain access to markets, to employment, and to public facilities such as health clinics and local schools.

Secondly, there have also been improvements with respect to access to communication networks in the new resettlement area. Survey findings suggest that almost every resettled household now owned a television, a telephone or a cell phone, where previously they had none. The greater access to communication technologies (such as televisions, telephones and mobile phones) provided resettlers a number of advantages such as accessing or exchanging information, and accessing employment. Some resettlers particularly welcomed the connection to this modern technology in order to maintain social networks. One of the respondents expressed her gratitude to the improvements to communication infrastructure during the interview:

Now that we have access to roads, to telecommunication technology, it is very easy for us to stay in touch with family, friends and relative. We are very happy and we are still very close.

(Participant no. 29, personal communication on June 17, 2011)

In light of these findings, it is reasonable to conclude that road access and affordable transport and communication networks, as two forms of physical capital have been improved since the resettlement.

The next form of physical infrastructure included in this analysis to help assess the strength of physical capital of the Nakai resettled communities is electricity supply. Electricity is an essential service for resettlers as it can be used to run household appliances such as washing machines, refrigerators, water pumps and televisions. Many of these goods decrease the need for labour and release the family for other productive tasks (McDonald, 2006). Before the resettlement, information from the interviews reveals that most households on the plateau had no access to electricity. In contrast, every household now has access to affordable electricity after the resettlement (Fieldwork, 2011). Many of resettled households recognized the benefits from the access to electricity service. These resettlers suggested that the power is used not only for domestic consumption, but also for agricultural production (such as the use of electric water pumps for irrigation). In addition, many resettlers stated that the electricity also provides light which allows them to work beyond sunset, thereby increasing production. To some, access to electricity helps improve a sense of security as one of the female respondents said:

Before I used to be so scared of wondering around the village at night because it was so dark. Now that we have electricity, we have light; I don't feel scared anymore to go to work in the morning and travel back home at night.

(Participant no. 2, personal communication on June 6, 2011)

This quote indicates that by having access to electricity, resettlers have not only increased their productivity, it also has an important psychological improvement – the enhancement of a sense of safety or security. Overall, these findings show a significant improvement in access to electricity service with resettlement.

McDonald (2006) argued that the capacity of resettlers to contribute to the household economy and production is contingent on good health. Good health is itself dependent

on adequate sanitation and clean water. Sanitation and water supply were hence explored during the interviews to determine the strength of physical capital of the Nakai resettled communities. Data gathered from interviews during the field research as well as health monitoring reports from the project reveal that the resettlers' health status and sanitation conditions improved significantly after resettlement (NT2 Health Checks and Survey, 2008). This is due to the fact that they have now access to cleaner water supply and sanitation facilities, where these were unavailable or non-existent in the past.

Prior to the resettlement, most interview respondents indicated that water for domestic use was traditionally obtained from the streams or rivers, where the water quality was relatively contaminated and the water adequacy was low particularly during the dry season. Moreover, many of these respondents also suggested that they struggled to collect water because they lived a long distance from the streams or rivers. Following the resettlement, all 16 resettled villages were provided with a range of domestic water supply systems that intended to provide resettlers with clean and reliable water supply. These included rain water collection by individual households, from roofs via guttering and downpipe into storage tanks; water pumped from an open well (see Appendix 6.b and 6.c); and water pumped from the irrigation header tanks via a filtration system (NT2 Project, 2005c).

The interviews show that all resettled households now have greater access to a water supply in the resettlement area. Most of the respondents further indicated their appreciation to the improvement of domestic water supply systems, with the majority of them pointing out that there has been a significant change in the cleanliness of the water supply after the resettlement. Furthermore, sanitation facilities (such as the installation of latrines or flush toilet with appropriate septic tank in each household and public building) appeared to have improved considerably with resettlement. The installation of the water supply and sanitation facilities alone will not lead to improvements in health unless they are accompanied by changes in hygiene behaviour (McDonald, 2006). In the case of Nakai resettlement, to encourage the villagers to

appropriately maintain the water supply and sanitation facilities, a hygiene education program was being designed and implemented (NT2 Project, 2005c). Section 6.2.3 also showed that most resettlers on the plateau have received regular health education to increasingly improve their understanding of hygiene and sanitation. Considering these findings, it seems that resettlement has significantly improved sanitation and water supply, along with other forms of physical capital.

With reference to Duan and McDonald (2004) and McDonald (2006), production from livelihood activities is more efficient and productivity is increased if resettlers can access necessary equipment tools or suitable technologies. Thus the next type of physical capital that was included in this analysis is the adequacy of production equipment. With respect to the Nakai Resettlement, findings show that resettled households were provided not only with production inputs, tools and equipment; there were on-going training programs and technical advice available to further support different livelihood activities. For the agricultural livelihood component, for instance, necessary agricultural inputs (such as rice, field crop, vegetable, forage crop seeds, fruit tree seedlings), as well as agricultural tools and facilities (such as planting and harvesting tools, fertilizers, pesticides, processing and storage facilities) were provided to all resettled households with agricultural advice through extension workers and demonstration plots in each village to boost their agricultural production. In addition, to enable resettled households on the Nakai Plateau to develop fishery production, fishing equipment and gear (for example boats, fishing nets, fish storages and containers) were made available with technical training on equipment repairs and maintenance. Hence, with respect to productive equipment, physical capital clearly has improved with resettlement.

Physical capital in large part determines the strength of both financial and human capital; therefore, it is necessary to the reestablishment of livelihoods. The types of physical capital identified and assessed include: shelter, road access and communication networks, electricity supply, sanitation and water supply and production equipment. The findings show that resettlers now have access to better housing, improved road

access and communication technologies, greater electricity and water supply, sanitation facilities and production equipment in comparison to situation before resettlement. Taking these results into consideration, it can be concluded that the resettlers on the Nakai Plateau are experiencing a significant improvement of physical capital with resettlement.

6.3 Summary

The strength or status of Nakai resettled communities' livelihood capital assets have been assessed in the previous sections according to five categories: (1) natural capital, (2) social capital, (3) human capital, (4) financial capital and (5) physical capital. The results are variable within and between the categories of livelihood assets. However, overall it seems that access to livelihood assets has been strengthened with resettlement on the Nakai Plateau.

Productive land, forests or forest resources and the NT2 reservoir are amongst the most important forms of natural capital for the Nakai resettlers and are therefore the focus of an assessment of the availability and contribution of natural resources to the resettlers' livelihoods. The analysis suggested that the changes to natural capital are variable after resettlement – in some respect weakened and in others strengthened. Traditional access to productive land for agricultural purposes and livestock was found to be significantly reduced in the new resettlement site. Despite the provision of technical training programs to help improve agricultural quality and productivity, the reduced availability of productive land continues to pose a constraint to the resettlers' ability to produce sufficient food to support for their family. While traditional access to forests for food and NTFPs and access to rivers for fish have been restricted as a result of the project, new forms of access to forest and fishery resources have been created for the resettlers. Resettlers have now gained more access to forest related employment and activities, including the Nakai Plateau Village Forestry Association (VFA). They have also become the primary beneficiaries from fishery resources in the NT2 reservoir for the

first ten years of its existence which provides them with a unique opportunity to develop their livelihoods from fishing in the reservoir.

Social capital is vital for the livelihood reconstruction of the Nakai resettlers, as it can be an essential precursor for gaining access to other livelihood capitals. The Nakai resettled people can rely on their families, friends, relatives and neighbours for human capital (sharing information and knowledge, and physical labour), and they can draw on social connections with families and friends at times for food, shelter, healthcare and other supports when financial capital is in short supply. Social capital, therefore, has been explored by analysing the networks and connectedness (between their families, friends, and the community members), the outlook towards formalized groups and the relationships of trust between the resettled community members and local authorities. The data revealed that there has been a significant improvement in the strength of social capital with respect to the informal social networks between their kin and friends, and the attitude towards formalized groups. However, there is no apparent difference with regard to the relationships of trust after resettlement, specifically the relationship of resettled community members with their local authority or government.

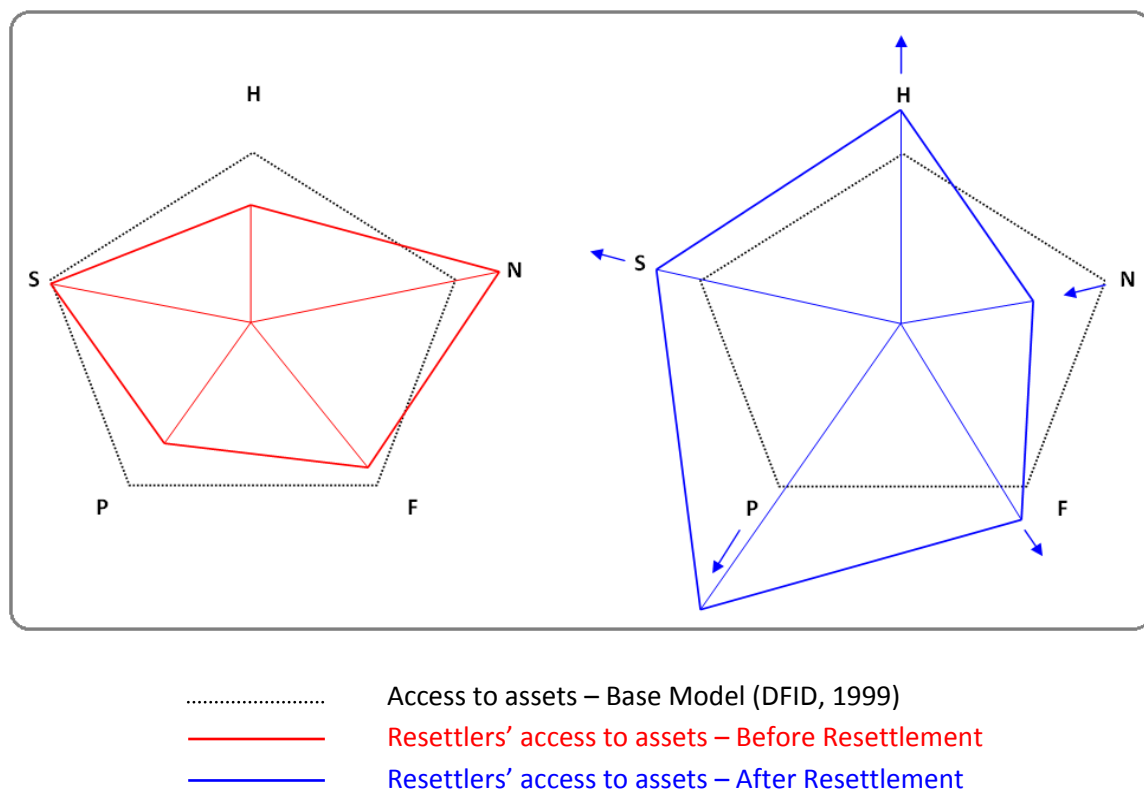
The strength of Nakai resettled communities' human capital has been investigated through a number of indicators: changes in health or education infrastructure, access to education and or health care services and sanitation facilities (including health or education training programs), and health or education status of the resettled population since the resettlement. After evaluating these criteria, it is reasonable to conclude that the level of human capital for the Nakai resettled households has improved since the resettlement. Health and sanitation conditions were found to be significantly enhanced due to the development of health infrastructure and improved access to health care services and sanitation facilities. Increased access to health education and trainings has also contributed to improved understanding about hygiene and sanitation, thus has encouraged healthier lifestyles. In addition, there have been numbers positive changes

with respect to education. These include improvements in school infrastructure, access to education facilities, and other livelihood trainings.

By assessing earnings, savings and access to financial resources, the financial capital of the Nakai resettlement was analysed. Generally, financial capital was shown to have strengthened in the five resettled villages. For most households, earnings have increased and savings have been improved following the resettlement period. While traditional form of savings such as the accumulation of large animals has decreased as a result of the project, other forms of savings such as bank deposits or investment in physical as well as productive assets have risen. With regards to access to financial resources, findings suggest that there were more options available to resettlers to gain access to financial resources since the resettlement. It can be concluded, then, that the resettlers on the Nakai Plateau are facing an environment of improved financial capital after the resettlement.

By and large, physical capital determines the strength of both financial and human capital; therefore, it is necessary to the reestablishment of livelihoods. The types of physical capital identified and assessed in this research include: shelter, road access and communication networks, electricity supply, sanitation and water supply and production equipment. The findings show that resettlers now have access to better housing, improved road access and communication technologies, greater electricity and water supply, sanitation facilities and production equipment in comparison to the situation before resettlement. Taking these factors into consideration, the Nakai resettlers are clearly experiencing a significant improvement of physical capital with resettlement.

Figure 6.1 Nakai Asset Pentagon Before and After Resettlement



Source: The Author, 2011

Drawing from the livelihood asset pentagon model presented in Chapter Three (see Figure 3.2 on page 43), Figure 6.1 above summarizes the changes in the resettlers' access to capital before and after resettlement. The left pentagon (red line) represents the status of livelihood assets or capitals of resettlers prior to the NT2 project. It shows considerable access to natural capital and reasonable access to social capital. On the other hand, access to all other capitals - human capital, financial capital and physical capital appears to be weak. The right pentagon (blue line) represents the change in the status of livelihood capital assets of resettlers after the resettlement. With resettlement, there is a clear reduction in the strength of natural capital. However, there is a significant increase in the strength of physical capital. The positive change to physical capital following the resettlement has significantly strengthened other capitals such as financial capital, human capital and social capital. For this reason, the length of the blue pentagon arms is longer.

CHAPTER SEVEN

DISCUSSION AND CONCLUSIONS

7.1 Introduction

As outlined in Chapter One, this thesis's primary aim is **to examine the potential of the existing compensation schemes or resettlement arrangements (in the event of hydropower development-induced displacement and resettlement) to address livelihood sustainability of the NT2 project affected communities in Lao PDR.** In an effort to address the primary aim for this research, this chapter intends to discuss three key research objectives and questions. Using the theoretical framework presented in Chapter Two and Three, this final chapter attempts to place the findings of the previous two chapters (Chapter Five and Six) into the context of the aim and key research questions which were the original motivation for this study.

The first Section 7.2 addresses Research Objective One by examining how the Nakai resettlement and livelihood restoration arrangement has strengthened the resettlers' access to these five livelihood assets. Section 7.3 addresses Research Objective Two by observing how the well-being of the Nakai resettlers has been improved as a result of the program. Then Section 7.4 identifies any potential risks, perceived by the resettlers, which may delay progress towards sustainable livelihood development. Finally, at the end of this chapter is a concluding section where a summary of this research is given (Section 7.5) and suggestions and recommendations in relations to future practice and research are put forth (Section 7.6).

7.2 Discussion of Objective 1

To assess the existing contribution of the Nakai resettlement and livelihood restoration programs in strengthening or changing the local capabilities and access to livelihood assets.

- *Have the Nakai resettlement and livelihood restoration programs assisted the reconstruction of livelihoods for those resettled people on the Nakai plateau?*
- *In what way have the programs changed the local capabilities and access to livelihood assets?*

This section assesses whether and how the Nakai livelihood restoration programs are strengthening the local capabilities and access to livelihood assets following the resettlement period.

As explored in Chapter Two, most of DIDR investigation and research by Gutman (1994), Cernea (1995, 1996, 1998), Downing (2002), Tan et al. (2003), Duan and McDonald (2004), Garikipati (2005), De Wet (2006a, 2006b), Mathur (2006), and McDonald (2006) among others has pointed out that during displacement and resettlement, people often lose natural capital, manmade physical capital, human capital and social capital. The loss of these capital assets deteriorates the local capabilities to reconstruct their livelihoods, and thereby increasing the risks of impoverishing local populations (Gutman, 1994; Cernea, 1998; Downing, 2002; Tan et al. 2003). As the results of this study show, this was not manifested in the case of Nakai resettlement. As documented in Chapter Five and examined in Chapter Six, Nakai resettled communities in the five surveyed villages have benefitted from improvements in community and household infrastructure, and access to livelihood programs and other transitional support from the project. The capabilities and access to various livelihood resources and capitals are perceived by the resettled participants to be generally strengthened as a result of Nakai resettlement and livelihood reconstruction programs. Essentially, these resettled communities are clearly experiencing a significant improvement of physical capital since resettlement. Results presented in both Chapter Five and Six illustrate that people on the Nakai Plateau now have access to better housing, improved road access and communication technologies, greater electricity and water supply, sanitation facilities and production equipment.

More interestingly, the restoration and development of physical capital in this study appear to have the most significant impact on the Nakai resettled communities in re-establishing their livelihoods. This particular finding supports McDonald's (2006) argument that during resettlement, physical capital is crucial to the reestablishment and development of livelihoods and is usually the first type of capital to be restored. McDonald (2006) further argued that the physical capital is necessary for the livelihood

reconstruction because it can be an essential precursor for gaining access to other capitals. Without basic infrastructure, re-establishing human and financial capital can be difficult – if not impossible. Without the restoration of these two forms of capital, resettlers cannot begin to re-establish their livelihoods (McDonald, 2006). Similarly, the results of this study clearly demonstrate that to most resettled villagers on the Nakai Plateau, physical capital is regarded as a crucial precursor for gaining access to other livelihood resources. With improved access to roading and affordable transport, Nakai resettlers are now able to access markets and to employment opportunities – potential increased access to financial capital. With greater access to cleaner water supply and sanitation facilities, health care and other educational services, resettlers are now able to improve their health status as well as their skills and knowledge – human capital. With the reconstruction of communication network, resettlers are now more able to maintain their social connections – social capital.

While McDonald (2006) highlighted the importance of restoring physical capital in order to gain access to other capitals, DFID (1999, 2004), Krantz (2001), Hussein (2002) and Carney, 2003) suggested that all five livelihood assets constitute building blocks for livelihoods as introduced in Chapter Three. These capitals can be combined, substituted for each other, and switched – meaning any type of livelihood capital can be an essential precursor for gaining access to others (DFID, 1999, 2004; Krantz, 2001; Hussein, 2002; Carney, 2003). This suggestion complements the results of this study. For instance, the the previous two chapters demonstrated that social capital is highly regarded by resettled villagers in the study as an important originator for obtaining access to other livelihood capitals, especially to human and financial capitals. These resettled villagers can rely on their families, friends, relatives and neighbours for exchanged physical labour (human capital) in agricultural activities as well as other social or communal functions. Resettled people can draw on social connections with families and friends at times for food, shelter, healthcare and other supports when financial capital is in short supply. More interestingly, findings from the interviews also suggest that this type of capital is even more important for the vulnerable households lacking adult labour. All

the three vulnerable households that participated in this research indicated that they are highly dependent on their close relatives or sometimes neighbours who live nearby for assistance with food and other social support.

In addition, the findings suggest that Nakai resettled communities' human capital has been enhanced as a result of many support programs such as health and education programs, vocational training and other livelihood support training programs (amongst others) as discussed earlier in Chapter Five and Six. This finding supports DFID's (1999), Krantz's (2001), Hussein's (2002) and Carney's (2003) claim that human capital development can be achieved through developing health/education infrastructure and personnel, and the building of relevant knowledge and skills. These skills and knowledge have been employed by many resettled participants on the Nakai Plateau to gain access to other livelihood capitals such as financial and natural capitals. For instance, people can use their skills and knowledge obtained from vocational trainings to access to more different employment options – again, potential increased access to financial capital. People can adopt new agricultural advice or techniques from the technical support programs to prevent erosion and improve soil quality, thereby enhancing the overall agricultural quality and productivity – potential increased access to natural capital.

Clearly, the information above suggests that the Nakai livelihood restoration programs, in many ways, are strengthening the local capabilities and access to livelihood assets. The Nakai resettled communities can employ one or more types of livelihood capital assets to gain access to other resources. The capability to access to these capitals and resources is thus seen to be vitally important for the livelihood reconstruction for the people on the Nakai Plateau.

7.3 Discussion of Objective 2

To determine from a local perspective whether the well-being of the project affected communities has been improved as a result of the Nakai resettlement and livelihood restoration scheme.

- *Have the Nakai resettlement and livelihood restoration programs helped resettled people access more secure income, education, health care, employment and other resources in comparison to their lives before resettlement?*

Research Objective Two of this study concerns the livelihood impact on the Nakai resettled communities following the resettlement period. It seeks to determine whether and to what extent the resettlement and livelihood restoration scheme has assisted the resettlers achieving sustainable livelihood outcomes. In the resettlement context, McDonald (2006) suggested that sustainable livelihood outcomes are essentially regarded as the inverse of poverty or occurrences that prevent the onset of impoverishment. This suggestion is comparable to the conversion of Cernea's (2000) eight risks of impoverishment as explored earlier in Chapter Two (Cernea, 2000; Cernea & McDowell, 2000). Each impoverishment risk is inversely related to a sustainable livelihood outcome. For instance, joblessness is the inverse of more employment opportunities or more income; increased morbidity and mortality are the inverse of increased well-being; food insecurity is the inverse of food security; marginalization and social disarticulation are the inverse of reduced vulnerability. Avoiding such risks is essential to providing sustainable livelihood outcomes for the resettlers.

However, an examination of sustainable livelihood outcomes is limited in this research. The term 'sustainable livelihood outcomes' suggests that the future viability of the livelihood outcome should be determined. However, the data collection during the interviews was completed at one moment in time. The interview questions asked about the present conditions in the resettlement sites and the conditions before resettlement. Therefore, the study can determine whether an improvement occurred. However, to determine the sustainability of livelihoods, a longitudinal study is required, which was

beyond the scope of this research. Instead, the livelihood outcomes are explored, as they existed at the time of the fieldwork. Some speculative comments about the sustainability of the livelihood outcomes are then tentatively made.

The results of this study support work from DIDR's authors such as Cernea (1998, 2000), Cernea and McDowell (2000), Mathur and Marsden, (1998), Fernandes (2000), Duan and McDonald (2004) and McDonald (2006) about the critical nature of livelihood assets to the reestablishment of livelihoods during resettlement as explored in Chapter Two. These authors highlighted the significance of restoring livelihood assets during resettlement, as these livelihood capitals enable the environment that underpins the resettlers' efforts to not only restore their livelihoods but to also achieve improved livelihood outcomes. Findings and analysis in both Chapter Five and Six clearly indicate that following the resettlement period, Nakai resettlers' improved access to various livelihood capitals have contributed to a number of positive impacts to their lives and livelihoods.

Specifically, positive economic impacts were experienced by most resettlers on the Nakai Plateau. With improved access to roads and affordable transport in the resettlement area, resettlers are able to enjoy the increased access to markets and to employment opportunities. With available production tools and equipment in combination with on-going training programs and technical support and advice, resettlers are able to increase their production and improve productivity. Moreover, with vocational training programs available at the resettlement sites, the resettlers are able to boost their income by participating in other income-generating activities. The data suggests that most of the resettled households are adapting to their new environment and taking advantage of the livelihood opportunities. As a result, they are able to produce more income for their families and to improve their economic situation. For most of them, the improvement in household income is regarded as an important factor contributing to a more sustainable livelihood. Interestingly this notion is

supported by DFID's (1999) contention that increased income also corresponds to the economic sustainability of livelihoods.

Furthermore, as discussed in Chapter Three, Chambers and Conway (1992), Scoones (1998), Carney (1999), Singh and Gilman (1999), Krantz (2001), and Hussein (2002), amongst other livelihood authors, argued that the livelihood sustainability approach should avoid focusing only on certain aspects or manifestations of impoverishment, such as low income and economic marginalization. Instead, these authors further suggested that the sustainable livelihood concept should also consider addressing the social aspect of livelihood sustainability, such as vulnerability and social exclusion. These authors believed that more attention must be paid to the various factors and processes which also enable people's ability to make a living in a socially sustainable manner.

Regarding the above suggestion, there have also been non-material impacts evident in this study in addition to the economic benefits, particularly a significant improvement in health and education status following the resettlement (*see* Section 6.2.3 for further information). As education and health are parts of a broad understanding of the concept of well-being (Mirowsky & Ross, 2004), improvement in these two areas is central to the success and sustainability of the livelihood strategy. Health and sanitation conditions of the Nakai resettlers have been significantly enhanced by the development of health infrastructure and improved access to health care services and sanitation facilities. Increased access to health education and training has also contributed to improved understanding about hygiene and sanitation, thus encouraging healthier lifestyles. In addition, there are a number of positive changes with respect to education, including improvements in school infrastructure, access to education facilities, and other livelihood trainings. These changes have further enhanced the resettlers' perspectives on the value of formal education (for example, resettled parents are now more supportive for their children's education. Communities have become more confident and willing to invest more in their children's education to enhance their knowledge and

improve their capacity to earn in the longer term) and there is an increased role in the workforce for female resettlers.

Interestingly, the study also presents a perspective on psychological or emotional impacts due to improvements to access to different livelihood resources in the post resettlement period. For one instance, access to electricity (used to provide light) has improved a sense of safety particularly for female resettlers when travelling at night on the plateau. For another instance, improved access to communication technology and infrastructure in the new resettlement area has improved the sense of family connection particularly for resettlers whose household members live far from home. In addition, the improvement to shelter or housing conditions in the new resettlement site provides resettlers with a sense of protection and security. The resettlers in this study have also experienced a strong sense of control and inclusion by having actively engaged in the entire process of constructing their own house, and their own village. The study shows that most resettlers have grown to love their new place and adapted well in the new living environment. These instances could be recognized as important for subjective well-being (Diener & Biwas-Diener, 2004; White, 2008) contributing to the overall quality of life – central to the success and sustainability of the livelihood development (Chambers, 1992, 1995).

Considering these findings, it can be concluded that the Nakai resettlement and livelihood restoration scheme has to date supported the resettlers on the Nakai Plateau to achieve a number of positive livelihood outcomes. These outcomes extend beyond economic benefits such as increased income or access to employment, to also include social and/or psychological well-being such as better health care and education, and an improved sense of security and self-esteem. All of these achievements are found to be fundamental in this study in further supporting resettlers to realize their own livelihood goals and objectives in the future.

7.4 Discussion of Objective 3

From a local perspective to identify potential risks with the current state of the program that may hold back progress towards sustainable livelihood development.

- *What are the most significant challenges faced by the affected communities in achieving a sustainable livelihood objectives?*
- *What are the key lessons learnt from the Nakai resettlement and livelihood restoration programs?*

Research Objective Three of this study seeks to understand the perceived risks experienced by the resettled communities on the Nakai Plateau in potentially preventing them from achieving their own livelihood objectives. Available literature reveals that development-induced displacement and resettlement, if unmitigated, often poses major socio-economic consequences and impoverishment risks to the displaced populations (Gutman, 1994; Cernea, 1995; Downing, 2002; Tan et al., 2003; Garikipati, 2005; Mathur, 2006). Investigation into displacement and resettlement literature, explored in Chapter Two, has identified a number of potential risks that may cause hardship and poverty to local communities and deeply threaten sustainability. These include joblessness, homelessness, marginalization, food insecurity, loss of common lands and resources, increased health risks, social disarticulation, the disruption of formal educational activities, and the loss of human rights (Gutman, 1994; Cernea, 1995; Downing, 2002).

Interestingly the results of this study, in many respects, oppose work from Gutman (1994), Cernea (1995), Downing (2002), Tan, Hugo and Potter (2003), Garikipati (2005), Mathur (2006) and many authors about the development-induced displacement and resettlement effect. Specifically, the loss of physical and non-physical assets during resettlement, that potentially stimulates the impoverishment risk and threatens livelihood sustainability to the displaced populations, is not evident in this study. Instead as discussed in detail in both Chapter Five and Six, various types of livelihood capitals such as physical, human, social and financial capitals have been established, restored and strengthened following the resettlement period. These capitals are seen to be

important for the livelihood reconstruction of resettlers on the Nakai Plateau. The capacity of Nakai resettlers to restore their livelihoods is largely reliant on their access to these resources. Resettlers in this study have indicated their ability to access to these resources and therefore been able to achieve a number of improved livelihood outcomes as discussed earlier in the previous section.

While acknowledging that the reduction to productive land such as agricultural land and grazing area for livestock were the reality of the resettlement process for many villagers on the plateau, less than half of the respondents indicated that this was a major concern. In other words, the decreased access to productive land does not appear to be regarded as a major threat to most Nakai villagers for the reconstruction of their livelihood. In part, this can be explained by the fact that many resettlers have now greater access to a range of opportunities and resources that enable them to pursue multiple livelihood activities in the new resettlement sites. Most resettlers in this study tended to indicate the importance of building new types of livelihoods rather than trying to return to the past ones. This suggests that resettlers' openness to new livelihood opportunities as a means of improving income and their overall welfare outweighs the risks arising from the loss of productive land caused by resettlement.

Moreover, resettlement scholars including Gutman (1994) and Bartolome et al. (2000) argued that one problem associated with the development-induced displacement and resettlement is the lack of participation and engagement of the affected population in the design, planning and implementation of the resettlement plan. The lack of sufficient resettlement planning depended largely on inadequate experience in resettlement issues and the scarcity of project affected people's participation (Bartolome et al., 2000). Consequently, a number of resettlement programs that attempted to restore the displaced to their former economic and social conditions have proved ineffective (Gutman, 1994; Bartolome et al., 2000). In other words, the effectiveness of the resettlement programs could be achieved and enhanced by fully engaging the project affected local communities in the entire process of the resettlement strategy development. All things considered, it is the affected population themselves who will be

enduring the impacts of those programs and that they are fully entitled to make their own choices on their livelihoods.

The findings of this case study support the comments above, by suggesting that many positive results of the Nakai resettlement and livelihood restoration programs, to a certain extent, were influenced by how the affected communities on the plateau were engaged in the resettlement process. The Nakai resettlement and livelihoods restoration programs have been thus far (in most respects) considered a success for most resettlers on the Nakai Plateau. Amongst others, information observed from the fieldwork supplemented with project progress reports (from the external body organizations and independent monitoring agencies) indicates that, an underlying factor contributing to this success is the project's adoption of participatory approaches in the Nakai resettlement and livelihood restoration scheme (Ovenden, 2007; Zeeuw et al., 2008; Halrows, 2009; McDowell et al., 2009; WB, 2010). The NT2 project has recognized the importance of local participation by having resettlers engaged in the entire process of resettlement strategy development from planning to program design and to the implementation phases. In particular during the fieldwork interviews, many resettlers in this study expressed their satisfaction on their involvement in the project's consultation process to determine resettlement sites, design of new houses, village layouts and other livelihood opportunities. As a result, the resettlers have been able to express their needs, raise their concerns and work in agreement with the NT2 project staff throughout the resettlement process. Clearly, one positive outcome of having local participation in the resettlement process could be that it helped the NT2 project reach acceptance from the resettlers and encouraged an improved working environment.

Furthermore, the engagement of the local community in the process not only helped the NT2 project reach acceptance from the resettlers, the results of this study also show that these resettlers are fully informed about alternative options and possible known impacts of the project, and were given opportunity to participate in key decisions that would affect their lives. All of the above mentioned aspects are believed to be central to

the success and sustainability of resettlement (ADB, 1998; WB, 2001; Bartolome et al., 2000). The NT2 project considered the participation as an important ingredient in the development thinking and practice, supporting evidence from Kumar (2002) who argued that development cannot be sustainable and long lasting unless people's participation is made central to the development process. Clearly, the overall findings of this NT2 project case study have shown that the integration of local community participation throughout the resettlement and livelihood reconstruction process, to a certain degree, have proved effective in addressing livelihood sustainability and thus have led to more positive results.

7.5 Research Summary and Concluding Statement

The intention of this research was to examine the potential of the existing resettlement and livelihoods restoration programs to address livelihood sustainability of the resettled communities associated with the Nam Theun 2 Hydropower Project in Lao PDR. In order to fulfil the primary aim for this research, three key research conclusions can be discerned.

Firstly, the Nakai resettlement and livelihood restoration programs have shown to date the potential to strengthen local capacities particularly through the increased access to various livelihood assets and resources. With resettlement, Nakai resettlers have been experiencing a significant improvement of physical capital (such as better housing, improved road access and communication technologies, greater electricity and water supply, sanitation facilities and production equipment). The improved access to physical capital following the resettlement has further enhanced resettlers' ability to gain access to human, social and financial capitals (such as improved health and education status, social connections, and increased access to markets and employment). The capacity to access these resources is seen to be vital for the reconstruction of the resettlers' livelihoods and potentially can be crucial for the achievement of long-term livelihood sustainability.

Secondly, the study suggests that the Nakai resettlement and livelihood restoration scheme has to date supported the resettlers on the Nakai Plateau in gaining a number of positive livelihood experiences. These extend beyond economic or monetary gains through increased income and access to employment, to also include other social and psychological benefits such as better health care and education, improved a sense of security and self-esteem. All of these achievements were also found to be fundamental for resettlers in realizing their own livelihood goals and objectives in the future.

And finally, although the results of this study have identified some challenges experienced by resettlers such as the reduction of agricultural and grazing land area, none were mentioned or perceived to be major threats that were preventing them from achieving their livelihood objectives. Instead, the experience with the NT2 project has highlighted one of the key lessons learnt from previous resettlement programs that is worth highlighting for future resettlement program mitigation associated with development projects. That is to have the resettlers fully engaged in the entire process of livelihood strategy development. At the end of the day, it is the affected population themselves who will be enduring the impacts of those programs and that they are completely entitled to make their own decisions on their livelihoods. If they do, this case study indicates the outcomes are likely to be positive and more favourable.

As this research was conducted in 2011, however, the NT2 project is roughly half-way through the livelihood development period. It is therefore not yet the appropriate time to determine whether the resettlement process has been a complete success. While it is apparent that the process to date has successfully strengthened the resettlers capabilities and access to various livelihood capitals that are important to the restructuring of their livelihoods, and the majority of resettled people currently feel that they are much better off, it will be some time before it is clear whether these successes are sufficient and can be sustained over the longer term. As time goes by and conditions continue to change, new and unexpected challenges will arise. It is essential that the project continues to develop adaptive mitigation strategies to respond to these changes

quickly and flexibly in order to pursue the project's broader resettlement objective: sustainably improved livelihoods for all those who have been resettled.

As the hydropower sector has become and will continue to grow as a potential driver of economic and social development in the future for the Lao PDR, more and more people will be increasingly displaced and resettled as a consequence. It therefore requires the GOL together with hydropower project developers to continue developing sound resettlement policies, plans and strategies to address the impact of displacement and resettlement in a more sustainable manner. Drawing from the experiences and the lessons learnt from the NT2 project case study, this thesis proposes that future resettlement mitigation or improvement associated with hydropower development projects (or other development projects in general) should consider rebuilding different livelihood capitals and increasing local capabilities to access those resources as crucial. This is because the capability and accessibility to these resources are crucially important to the reconstruction of resettlers' livelihoods and to the achievement of their own livelihood goals and objectives in the future. Most importantly, an active and more meaningful participation of the affected communities must be encouraged throughout the process of livelihood strategy development. This is to ensure that the resettled people are fully informed about alternative options and possible known impacts of the project, and they are given opportunity to participate in key decisions that would affect their lives. If these aspects are taken into account, future resettlement and livelihood reconstruction initiatives will likely be more successful and bring more positive results and outcomes.

7.6 Suggestion for Future Research

As pointed out earlier in the research limitation section (see Section 4.5 in Chapter Four), this study was conducted during early stages of the development of the livelihood restoration period. The data collected at this point might only reflect the impact of the resettlement arrangement at a specific time, and the research therefore could not fully

determine whether these programs have contributed over the long term to the sustainability of livelihoods of the project affected communities. A repeated study based on perspectives of those who have been resettled should be undertaken in several years following the end of the resettlement period (which is 2014), to better help determine the livelihood sustainability of the Nakai resettlers.

This study was limited to the assessment of local capacities and access to livelihood capitals as a major component of the broad sustainable livelihood framework. However, during the course of this research there was some evidence that different institutions (both formal and informal) ranging from local government, to local community organizations, to private sectors, and to international financial institutions all have an important role to play to influence or mediate people's access to assets and shape livelihood activities. A deeper understanding of these institutions, their roles, their underlying social relationships and power dynamics embedded in these, might be an essentially important subject for future investigation.

While the research reported here indicates that the NT2 project has taken on many of the lessons of previous resettlements and avoided most of the disastrous outcomes of earlier programs, further investigations on key factors contributing to or enabling success of the development and implementation of resettlement and livelihoods restoration programs could be valuable and or necessary for future resettlement mitigation or improvement associated with development projects.

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APPENDICES

Appendix 1: Massey University Human Ethics Low Risk Notification



MASSEY UNIVERSITY

2 May 2011

Vilayvanh Phonepraseuth
2/453 Ferguson Street
PALMERSTON NORTH 4410

Dear Vilayvanh

Re: From Resettlement to Sustainable Livelihood Development – A Case Study from the NAM Theun 2 Hydropower Project, Lao PDR

Thank you for your Low Risk Notification which was received on 27 April 2011.

Your project has been recorded on the Low Risk Database which is reported in the Annual Report of the Massey University Human Ethics Committees.

The low risk notification for this project is valid for a maximum of three years.

Please notify me if situations subsequently occur which cause you to reconsider your initial ethical analysis that it is safe to proceed without approval by one of the University's Human Ethics Committees.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

A reminder to include the following statement on all public documents:

"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research."

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Professor John O'Neill, Director (Research Ethics), telephone 06 350 5249, e-mail humanethics@massey.ac.nz".

Please note that if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to provide a full application to one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

Yours sincerely

John G O'Neill (Professor)
**Chair, Human Ethics Chairs' Committee and
Director (Research Ethics)**

cc Assoc Prof Glenn Banks
School of People, Environment and Planning
PN331

Mrs Mary Roberts, HoS Secretary
School of People, Environment and Planning
PN331

Dr Maria Borovnik
School of People, Environment and Planning
PN331

Massey University Human Ethics Committee
Accredited by the Health Research Council

Te Kunenga
ki Pūrehuroa

Research Ethics Office, Massey University, Private Bag 11222, Palmerston North 4442, New Zealand
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E humanethics@massey.ac.nz animalethics@massey.ac.nz gtc@massey.ac.nz
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Appendix 2: Information Sheet



**Project Title: From resettlement to sustainable livelihood development.
(A case study from the Nam Theun 2 Hydropower Project, Lao PDR.)**

Information Sheet

My name is Vilayvanh PHONEPRASEUTH, a Master's student in Development Studies at Massey University in New Zealand. I am currently doing a thesis research in order to fulfil the requirement of my Master's degree. The main purpose of my research is to examine the potential of resettlement arrangements (in the event of hydropower development-induced displacement) to address livelihood sustainability of the project affected communities in Lao PDR.

This proposed study will be a participatory study conducted within the Sustainable Livelihood Framework. Using a specific case study from Nam Theun 2 hydropower project in Laos, this research aims to assess the existing contribution of the Nakai livelihood restoration program in strengthening / weakening the local capabilities and access to livelihood assets, to determine whether the well-being of the project affected community (from the local perspective) is improved as a result of this livelihood restoration scheme, and to identify some of the issues or potential risks from a local perspective with the current state of the program that may hold back sustainable livelihood development progress, and make recommendations to overcome those risks.

If you are willing to be involved in the research, I would like to carry out a relatively brief interview with you about this process. The interview may be recorded if you are comfortable with it. It is up to you to decide whether you wish to be named in publishable material or whether you wish to remain anonymous. If it is the latter, we will discuss with you how this anonymity can be maintained.

On completion of this research I will produce a summary discussion of my findings (in Lao) which will be distributed to you if you would like. I am also happy to supply copies of any material published from this research if you wish to receive them. The thesis will also be available online on the completion of this research.

Te Kūnenga
ki Pārehuroa

School of People, Environment & Planning
Private Bag 11222, Palmerston North 4442, New Zealand.
T +64 6 350 4343 F +64 6 350 5737 www.pep.massey.ac.nz



Participant's Rights

For interviewees:

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- *decline to answer any particular question;*
- *withdraw from the study before the completion of the interview component;*
- *ask any questions about the study at any time during participation;*
- *provide information on the understanding that your name will not be used unless you give permission to the researcher;*
- *be given access to a summary of the project findings when it is conclude;*
- *ask for the recorder to be turned off at any time during the interview.*

Research Project Contacts

If at any time you have any questions about the research, do not hesitate to get in touch with me.

Ms. Vilayvanh PHONEPRASEUTH
Institute of Development Studies
School of People, Environment and Planning
Massey University
Palmerston North
New Zealand
Email: vphonepraseuth@yahoo.co.nz

Supervisor:
Associate Prof. Glenn Banks
Institute of Development Studies
School of People, Environment and Planning
Massey University
Palmerston North
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Email: G.A.Banks@massey.ac.nz

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher named above is responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher, please contact Professor John O'Neill, Director, Research Ethics, telephone 06 350 5249, email humanethics@massey.ac.nz.

Thank you very much for your cooperation!

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ຊື່ໂຄງການ: ຈາກວຽກງານການຍົກຍ້າຍຈັດສັນໄປສູ່ການພັດທະນາການດຳລົງຊີວິດແບບຍືນຍົງ.
(ຕົວຢ່າງຈາກໂຄງການໄພພິບັດເທີນ 2, ສ.ປ.ປ. ລາວ)

ໃບແຈ້ງຂໍ້ມູນບົດວິໄຈ

ຂ້າພະເຈົ້າ ນ. ວິໄລວັນ ພອນປະເສີດ, ເປັນນັກສຶກສາປະລິນຍາໂທ ສາຂາຄົ້ນຄວ້າດ້ານການພັດທະນາ ຢູ່ທີ່ມະຫາວິທະຍາໄລ ແມດສະຊີ, ປະເທດນິວຊີແລນ. ປະຈຸບັນ, ຂ້າພະເຈົ້າ ກຳລັງເຮັດວຽກວິໄຈບົດນີ້ເພື່ອປະກອບໃນການສຳເລັດປະລິນຍາໂທ. ຈຸດປະສົງ ຕົ້ນຕໍຂອງບົດວິໄຈນີ້ແມ່ນເພື່ອທີ່ຈະສຶກສາ ຄົ້ນຄວ້າ ຄວາມອາດສາມາດຂອງວຽກງານການຍົກຍ້າຍຈັດສັນ (ເນື່ອງມາຈາກໂຄງການ ພັດທະນາໄພພິບັດ) ແນໃສ່ໃນການພັດທະນາການດຳລົງຊີວິດແບບຍືນຍົງ ຂອງປະຊາຊົນຜູ້ທີ່ຖືກກະທົບ/ຜູ້ຖືກຍົກຍ້າຍຈັດສັນ ຈາກໂຄງການ ພັດທະນາໃນ ສ.ປ.ປ. ລາວ.

ວຽກວິໄຈບົດນີ້ເປັນບົດນີ້ແມ່ນຈະໄດ້ປະຕິບັດແບບສຶກສາຮ່ວມ ແລະຈະໄດ້ສຶກສາໃນກອບການດຳລົງຊີວິດແບບຍືນຍົງ. ເພື່ອເປັນການຖ່າຍ, ໂຄງການໄພພິບັດເທີນ 2 ແລະວຽກງານແບບແຜນການຍົກຍ້າຍຈັດສັນຂອງໂຄງການຈະໄດ້ຖືກນຳໃຊ້ເປັນຕົວຢ່າງຫຼັກ. ບົດວິໄຈນີ້ ມີຈຸດປະສົງທີ່ຈະປະເມີນວຽກງານແບບແຜນການຍົກຍ້າຍຈັດສັນໃນປະຈຸບັນ, ໂດຍສະເພາະແມ່ນໂຄງການພື້ນພູສົ່ງເສີມ ແບບແຜນການດຳລົງຊີວິດຢູ່ພູພຽງນາກາຍ, ໃນການສົ່ງເສີມພັດທະນາ ຫຼື ຫຼຸດຜ່ອນ ປະສິດທິພາບ, ສິດແລະ ຄວາມອາດສາມາດໃນການຊົມໃຊ້ຊັບສິນທີ່ມີຄວາມຈຳເປັນຕໍ່ການດຳລົງຊີວິດຂອງປະຊາຊົນຜູ້ທີ່ຖືກກະທົບ/ຜູ້ຖືກຍົກຍ້າຍຈັດສັນ. ວຽກວິໄຈບົດນີ້ຍັງມີຈຸດປະສົງຢາກວັດແທກຕົວຈິງວ່າ ຊີວິດການເປັນຢູ່ຂອງປະຊາຊົນ ຜູ້ທີ່ຖືກກະທົບ/ຜູ້ຖືກຍົກຍ້າຍຈັດສັນໄດ້ມີການພື້ນພູທີ່ດີຂຶ້ນ (ໃນແນວຄິດຂອງປະຊາຊົນທ້ອງຖິ່ນ) ເນື່ອງມາຈາກການປະຕິບັດແຜນງານພື້ນພູ ດັ່ງກ່າວ. ແລະສູດທ້າຍບົດວິໄຈນີ້ ຍັງມີຈຸດປະສົງທີ່ຈະຄົ້ນຄວ້າຫາບັນຫາທີ່ມີຄວາມອາດສາມາດເປັນໄປໄດ້ທີ່ຈະມາຖ່ວງດັ່ງ ຫຼືຢູ່ດັ່ງຄວາມກ້າວໜ້າຂອງການ ພັດທະນາການດຳລົງຊີວິດແບບຍືນຍົງ, ແລະເພື່ອທີ່ຈະໃຫ້ການສະເໜີແນະນຳແນວທາງ ທີ່ຈະສາມາດແກ້ໄຂປັບປຸງໃຫ້ດີຂຶ້ນ.

ຖ້າທ່ານເຕັມໃຈແລະສາມາດເຂົ້າຮ່ວມປະກອບສ່ວນໃນວຽກງານວິໄຈດັ່ງນີ້, ຂ້າພະເຈົ້າຈະຂໍສະໜອງເອົາຂໍ້ມູນກັບທ່ານ. ຖ້າພວກທ່ານສະດວກໃຈ ແລະເທີນດີ, ຂ້າພະເຈົ້າຈະຂໍອານຸຍາດ ບັນທຶກສຽງໃນການສະໜອງຄຳຕອບນີ້ອີກນຳດ້ວຍ. ມັນຂຶ້ນກັບຄວາມສະໝັກໃຈຂອງພວກທ່ານທີ່ຈະອານຸຍາດໃຫ້ຂ້າພະເຈົ້າ ນຳໃຊ້ຂໍ້ຂອງພວກທ່ານເຂົ້າໃນບົດຂຽນ. ຖ້າທ່ານອານຸຍາດ, ຂ້າພະເຈົ້າຈະລົມລາຍລະອຽດຕື່ມວ່າການອອກຂໍ້ນີ້ຈະເປັນໄປໃນຮູບຮ່າງລັກສະນະແບບໃດ.

ເມື່ອການວິໄຈບົດນີ້ສິ້ນສຸດລົງ, ຂ້າພະເຈົ້າມີຄວາມຍິນດີທີ່ຈະສົ່ງແຈ້ງບົດລາຍງານຫຍໍ້ ຂອງການວິໄຈຄົ້ນຄວ້າດັ່ງນີ້ໃຫ້ພວກທ່ານຖ້າພວກທ່ານຕ້ອງການ. ຫຼື ຖ້າພວກທ່ານສົນໃຈທີ່ຈະອ່ານບົດນີ້, ພວກທ່ານກໍ່ສາມາດຊອກຫາອ່ານໄດ້ທາງອອນລາຍ ຫຼັງຈາກການວິໄຈບົດນີ້ສິ້ນສຸດລົງ.



ສິດຂອງຜູ້ເຂົ້າຮ່ວມໃນການສຳພາດ

ຈະບໍ່ມີຂໍ້ບັງຄັບຕາມໃດໆ ວ່າທ່ານຈະເປັນຈະຕ້ອງຕອບຮັບເຂົ້າຮ່ວມການວິໄຈໃນຄັ້ງນີ້. ແຕ່ຖ້າຫາກວ່າທ່ານຕັດສິນໃຈຕົກລົງ ເຂົ້າຮ່ວມ, ທ່ານມີສິດດັ່ງຕໍ່ໄປນີ້:

- ທ່ານມີສິດ ປະຕິເສດທີ່ຈະຕອບຄຳຖາມທີ່ທ່ານບໍ່ຢາກຕອບ;
- ທ່ານມີສິດ ຖອນຕົວອອກຈາກການວິໄຈນີ້ກ່ອນການສຳພາດຈະສິ້ນສຸດລົງ;
- ທ່ານມີສິດ ຖາມໄດ້ທຸກຄຳຖາມກ່ຽວກັບບົດວິໄຈໃນລະຫວ່າງໄລຍະຕະຫຼອດການ ເຂົ້າຮ່ວມການວິໄຈໃນຄັ້ງນີ້;
- ທ່ານມີສິດ ໃຫ້ຂໍ້ມູນໂດຍເຂົ້າໃຈວ່າຊື່ຂອງທ່ານຈະບໍ່ຖືກເຕີຍແຕ່ ຖ້າບໍ່ໄດ້ຮັບການອະນຸຍາດຈາກທ່ານກ່ອນ;
- ທ່ານມີສິດ ເຂົ້າຫາບົດລາຍງານຫຍໍ້ ຂອງຜົນການວິໄຈຄົ້ນຄວ້າຄັ້ງນີ້ ຫຼັງຈາກການວິໄຈບົດນີ້ສິ້ນສຸດລົງ;
- ທ່ານມີສິດ ທີ່ຈະບອກຢຶກເລີກການບັນທຶກສຽງໃນທຸກໄລຍະການສຳພາດ.

ຕິດຕໍ່ຂໍ້ມູນເພີ່ມເຕີມ

ຖ້າທ່ານຕ້ອງການສອບຖາມລາຍລະອຽດເພີ່ມເຕີມກ່ຽວກັບບົດວິໄຈ, ກະລຸນາຕິດຕໍ່ໄດ້ທີ່

ນ.ວີ ໄລຈັນ ພອນປະເສີດ

ສະຖາບັນຄົ້ນຄວ້າການພັດທະນາ

ຄະນະມະນຸດສາດ, ສິ່ງແວດລ້ອມ ແລະການວາງແຜນ

ມະຫາວິທະຍາໄລ ແມດສະຊີ,

ທາມເມີສເຕີນ ນອດ, ປະເທດນິວຊີແລນ.

Email: vphonepraseuth@yahoo.co.nz

ອາຈານເກີ້ລນ ແບງສ

ຫ. ອາຈານ ເກີ້ລນ ແບງສ

ສະຖາບັນຄົ້ນຄວ້າການພັດທະນາ

ຄະນະມະນຸດສາດ, ສິ່ງແວດລ້ອມ ແລະການວາງແຜນ

ມະຫາວິທະຍາໄລ ແມດສະຊີ,

ທາມເມີສເຕີນ ນອດ, ປະເທດນິວຊີແລນ.

Email: G.A.Banks@massey.ac.nz

ຂອບໃຈທຸກທ່ານທີ່ໃຫ້ການຮ່ວມມື!

Te Kunenga
ki Pūrehuroa

School of People, Environment & Planning
Private Bag 11222, Palmerston North 4442, New Zealand.
T +64 6 350 4343 F +64 6 350 5737 www.pep.massey.ac.nz

Appendix 3: Support Letter from School Department



MASSEY UNIVERSITY
COLLEGE OF HUMANITIES
AND SOCIAL SCIENCES
TE KURA PŪKENGĀ TANGATA

9 May 2011

To Whom It May Concern

Dear Sir/ Madam,

RE: **Vilayvanh Phonepraseuth**

This letter confirms that Vilayvanh Phonepraseuth (One) is a Master's student in Development Studies, in the College of Humanities and Social Sciences at Massey University in Palmerston North, New Zealand.

The topic of Vilayvanh's thesis is the impact of development-induced resettlement on the livelihoods of those who were resettled to make way for hydro-dam development. She will be carrying out her fieldwork for her thesis in Laos for two months from early May.

I am the Supervisor of Vilayvanh's Thesis, and would be grateful for any assistance you may be able to provide for her work

If you have any further questions regarding Vilayvanh's work, please do not hesitate to contact me.

Yours sincerely,

Glenn Banks

Associate Professor Glenn Banks
Development Studies
School of People, Environment and Planning
College of Humanities and Social Sciences
Massey University
Private Bag 11-222
Palmerston North
New Zealand

Editor, *Asia Pacific Viewpoint*

Tel: +64 6 356 9099 extn 2983

Fax: +64 6 350 5689

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Web: <http://dev.massey.ac.nz/>

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Appendix 4: Consent Form



MASSEY UNIVERSITY
COLLEGE OF HUMANITIES
AND SOCIAL SCIENCES
TE KURA PŪKENGĀ TANGATA

**Project Title: From resettlement to sustainable livelihood development.
(A case study from the Nam Theun 2 Hydropower Project, Lao PDR.)**

PARTICIPANT CONSENT FORM - INDIVIDUAL

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to the interview being sound recorded.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: _____ **Date:** _____

Full Name - printed _____

Te Kūnenga
ki Pūrehuroa

School of People, Environment & Planning
Private Bag 11222, Palmerston North 4442, New Zealand.
T +64 6 350 4343 F +64 6 350 5737 www.pep.massey.ac.nz

ຊື່ໂຄງການ: ຈາກລາຍງານການຍົກຍ້າຍຈັດສັນໄປສູ່ການພັດທະນາການດຳລົງຊີວິດແບບຍືນຍົງ.
(ຕົວຢ່າງຈາກໂຄງການໄພພິບັດເກີນ 2, ສ.ປ.ປ. ລາວ)

ໃບເຫັນດີເຂົ້າຮ່ວມການສຳພາດ - ພາກສ່ວນບຸກຄົນ

ຂ້າພະເຈົ້າ ໄດ້ອ່ານ ໃບຮ່າງຂໍ້ມູນບົດວິໄຈ, ໄດ້ຮັບຟັງແລະເຂົ້າໃຈ ລາຍລະອຽດກ່ຽວກັບບົດວິໄຈນີ້ແລ້ວ. ຂ້າພະເຈົ້າ ມີ
ຄວາມພໍໃຈກັບຄຳຕອບແລະຂໍ້ມູນທີ່ ຂ້າພະເຈົ້າ ໄດ້ໃຫ້ໄປ, ແລະຂ້າພະເຈົ້າກໍມີຄວາມເຂົ້າໃຈວ່າ ຂ້າພະເຈົ້າມີຄວາມ
ສາມາດທີ່ຈະຖາມ ຄຳຖາມເພີ່ມເຕີມ ໄດ້ທຸກເວລາ.

ຂ້າພະເຈົ້າເຫັນດີ ບໍ່ເຫັນດີທີ່ຈະໃຫ້ມີການປັນທຳສູງໃນການສຳພາດດັ່ງນີ້.

ຂ້າພະເຈົ້າເຫັນດີທີ່ຈະເຂົ້າຮ່ວມ ໃນການສຳພາດດັ່ງນີ້ພາຍໃຕ້ເງື່ອນໄຂທີ່ໄດ້ລະບຸໄວ້ໃນ ໃບຮ່າງຂໍ້ມູນບົດວິໄຈ.

ລາຍເຊັນຜູ້ກ່ຽວ:

ຮຸ້ນຫີ:

ຊື່ເລຂານາມສະກຸນ:

Appendix 5: Initial Semi-structured Interview Questions

Key Research Questions

Objective 1: To assess the existing contribution of the Nakai livelihood restoration program in strengthening / weakening the local capabilities and access to livelihood assets.

- Has the livelihood restoration program assisted the reconstruction of livelihoods for those involuntary resettled people in Nakai plateau area?
- In what way has the program changed the local capabilities and access to livelihood assets?

Livelihood Assets – comparing between the before and after resettlement events (mostly adapted from NZAID – SLA guidelines)

- What types of information/knowledge/skill that people feel are valuable to their livelihoods after resettlement? Are these resources available? From where (what source or networks) do people access information resources? Which groups (if any) are excluded from accessing these resources? Are technologies in use from internal or external sources? Do people feel that they are particularly lacking in certain types of information? How aware are resettled people of their rights and of the policies, legislation and regulation that impact on their livelihoods?
- What social networks and more formalized groups exist after the resettlement? To what extent do such networks and formalised groups rebuild trust, facilitate cooperation and expand access to wider institutions? How does such trust, cooperation and access influence livelihood opportunities?
- What are the types of natural resources available after resettlement? Which groups have access to which types of natural resources? Is there evidence of significant conflict over resources? How productive are the resources? Has this been changing over time?
- Do resettled people have adequate shelter, water supply and sanitation? Are resettled people happy with their new houses? Their new garden? What is the state of transport infrastructure and social services? How do they directly / indirectly support livelihoods?
- In what form do resettled people currently keep their savings? Which types of financial service organizations exist (both formal and informal)? Who/which groups have access and who/which groups (if any) are excluded from having access to these financial resources?

Transforming structures and process – (mostly adapted from NZAID – SLA guidelines)

- What policies and legislation influence resettled people's livelihoods, and how?
- What institutions and organisations influence people's livelihoods assets, strategies and outcomes, and how do they influence these? What are the roles and

responsibilities between these different institutions and organizations, and how are they established and enforced? What are the interrelationships between these institutions and organizations? What access do resettled people have to these institutions and organisations?

- How aware are resettled people of their basic human and political rights? How are rights enforced and safeguarded? Are there organizations and processes that are owned by resettled communities and groups, and that engage in self-help and advocacy initiatives?

Objective 2: To determine whether the well-being of the project affected community (from the local perspective) is improved as a result of this livelihood restoration scheme.

- Has the program helped resettled people access to more secured income, education, health care, employment and other resources in comparison to lives before resettlement?

Livelihood Outcomes – comparing between the before and after resettlement events (mostly adapted from NZAID – SLA guidelines)

- What are the kinds of livelihood goals that resettled people aspire to achieve and what is the relative emphasis that they place on different livelihood outcomes? (i.e. more income, increased well-being, reduced vulnerability, improved food security, more sustainable use of the natural resource base)
- What trade-offs or conflicts are there between these different livelihoods outcomes?
- To what extent do people actually achieve their livelihood goals, and what is preventing people from fully achieve them?

Objective 3: To identify some of the issues or potential risks from a local perspective with the current state of the program that may hold back sustainable livelihood development progress, and develop strategies to overcome those risks

- What are the most significant challenges faced by the affected community in achieving sustainable livelihood objective?
- What could have been done for the program to bring more positive outcomes, from the community perspective?

Interview Questions:

More General: Can you describe your livelihood experience **before resettlement**?

More Specific: What were your major sources of livelihood (food, income, savings, etc)? What types of work did you do before resettlement? Would you consider those livelihood practices sustainable? If so, what were the reasons / most significant factors contributing to livelihood sustainability?

More General:

Can you describe your livelihood experience **after the resettlement**? Have there been any significant changes compared to livelihood before resettlement? What are the three major changes that affect your livelihood? How have these changes impacted your livelihood?

More specific to the livelihood program:

Are you aware of the alternative livelihood restoration programs? Are you part of these programs? Can you describe your impression about the alternative livelihood programs being provided as part of the compensation package? What do you like most about the programs? What are the areas do you think need improvement?

As a result of the program?

What are your sources of livelihood after resettlement (food, income, savings, etc)?

Do you still have access to forest, river, and other resources you previously had? If not, where do you get your food or fish now? Where do you get your fire wood? Do you have difficulties accessing these resources? Is everyone in the community allowed to access to these resources? (Do you still grow rice/crops? Where do you grow rice/crops? How is the quality/productivity of the soil? Are you able to produce good quality of rice and other crops? Do you have a vegetable garden? What is the quality of the soil? What do you do with your production of the garden? Are they used for household consumption or for commercial purpose?) How much do you earn per month or annually for a living? How will you spend your income – identify the top three areas?

Do you have access to road, electricity, water supply etc after resettlement? How do you like or dislike these facilities? Have they been adequate to support your livelihood? Are there any schools in your community after resettlement? Do any of your family members go to school? If not, do you want to go to school? Are there any livelihood training programs available? Provided by whom? Do any of your family members attend the training programs? How will you describe these training programs in supporting your livelihood? Are

there any health care facilities available in or nearby the resettlement area? If yes, have you been using the service before? How often do you use the facility? Are you happy with these facilities?

How would you describe the community you lived in the new resettlement area? Do you still live close to your family/relatives? Are you happy? What are the activities and how do you part of those activities as a member of the community? What do you like or dislike about the new community? What do you think are the strengths/weaknesses of the new community?

Are you aware of the District/Village Development Fund, Village Forest Association or Women's Union Group (and other community groups/associations) and their roles? Are you a member of those associations? How do you see their roles in supporting your livelihood? Do you have access to their resources? Which groups (if any) have been excluded from these resources?

Appendix 6: Photos of other Facilities Available on the Nakai Plateau



6. a. All-season rice storage



6. b. Water tank used to collect rain water



6. c. A local girl using a hand water pump for domestic use



6. d. A local community health centre in Ban Sob On



6. e. A local primary school in Ban Sob Hia



6. f. A village's rice mill factory in Ban Nong Bua



6. g. A local village marketplace in Ban Nong Bua Kham