

**Socio-Ecological Perspectives
on Sustainable Livelihood and Environmental
Management: A Multiple Case Study
in Northern Thailand's National Park**

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Abstract

Protected areas such as national parks play a crucial role in global conservation efforts and also provide a range of socio-economic benefits. This paper draws from preliminary findings from an ongoing research project to review the broad theoretical socio-ecological perspectives and applies multidisciplinary research to environmental management. The aim of the overall research program is to investigate the relationship between sustainable livelihood and natural resource management in northern Thailand's national park communities, with a view to enhancing compatibility. Participatory Rural Appraisal (PRA) and qualitative research methods are used to develop an in-depth understanding of the governing institutions in natural resource management with regard to the context and perception of sustainable livelihoods. Our preliminary results show that sustainable livelihood activities are related to environmental conservation initiatives, such as annual forest restoration, the establishment of fire breaks, water resources management, and community-based ecotourism, which are the vital parts of natural resource management in northern Thailand's national park communities. In addition, the ASEAN Economic Community (AEC) is the pathway for national economic and tourism

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development, which will promote change in terms of socio-economic development in local, national and regional ASEAN countries. The recommendation of this study considers that community empowerment to participate in natural resource management decisions is the significant pathway to support both sustainable livelihood and environmental conservation efforts within northern Thailand's national parks.

Key Word: Environmental Management, National Park Communities, Sustainable Livelihood

Introduction

Worldwide, biological diversity has gradually declined due to ongoing human exploitation (Ghimire & Pimbert, 1997; Machlis & Tichnell, 1985; McNeely, 1994; Shafer, 1999; Wells, Brandon, & Hannah, 1992). In the past, biodiversity conservation efforts have concentrated on establishing networks of parks and reserves to protect and maintain existing ecological diversity within these areas (Machlis & Tichnell, 1985; McNeely, 1994; Shafer, 1999). As a result of global conservation initiatives, many natural areas are designated as protected areas (Ghimire & Pimbert, 1997; Wells et al., 1992). In the 19th century, the first national park was established and named 'Yellowstone National Park' in the United States (Rydell & Culpin, 2006). In the past, park management has generally been unsympathetic to the constraints facing local communities and furthermore, has emphasized the use of regulations aimed at excluding local communities (Ghimire & Pimbert, 1997; Wells et al., 1992). However, the new approach to national park management is attempting to address the needs of local communities by emphasising local participation and by combining conservation with development (Ghimire & Pimbert, 1997; Wells et al., 1992). Internationally protected areas, such as national parks and wildlife reserves, have long been recognized as having a flagship role in conserving ecological

diversity and providing socio-economic benefits (Naughton-Treves, Holland, & Brandon, 2005).

In the last century, forest areas in northern Thailand were destroyed by traditional slash-and-burn agriculture and commercial logging. As a result, the Royal Forest Department (RFD) of Thailand launched the National Park Act (1961), which designated selected areas as national parks, to reduce deforestation and limit access (Emphandhu, 2003; Emphandhu & Chettamart, 2003). However, the newly-created parks in northern Thailand were also home to a large number of hill tribes and ethnic minority groups (Roth, 2004, 2008). National park regulations made it illegal for villagers to stay and efforts were made to force them out, which led to long term conflict when communities lost their tenure rights and some of them resisted being resettled (Roth, 2008). Since the late 1960s, the Royal Project Foundation (which had focused on agricultural research and development) has worked with government and non-government organizations to reconcile conflict, encourage community participation in conservation initiatives, provide education, and promote alternative livelihood strategies for suitable cultivation and commercial farming (Pasuk, Sangsit, & Nualnoi, 1996). Since then, and in accordance with the 7th National Economic and Social Development Plan (1991-1996) and the Thai constitution 1997, the Thai government has delegated resource management authority to local government actors.

The adoption of the eighth National Development Plan (1997-2001) led to a significant shift from the economic growth-oriented approach to the new holistic “people-centred development” approach with the aim of ensuring more balanced development (Mongsawad, 2010; NESDB, 2007-2011, 2012-2016). In 1997, the Thai government produced an economic growth strategy to lead the country out of the 1997 Asian Economic Crisis. One of the strategies was to promote tourism as a main source of national income. As a result, the Ninth and Tenth National Development Plans covering the periods 2002-2006 and 2007-2011 respectively, emphasised the importance of local participation in environmental management as the

means to enhance the social resilience in relation to achieve sustainable development with a people-centred approach (Mongsawad, 2010; NESDB, 2007-2011, 2012-2016). Several campaigns were introduced to promote Thailand as a premier nature tourism destination, such as the '1998 and 2000 Visit National Park Year' and 'Unseen Thailand'. These campaigns included the 'Amazing Thailand' as for the Tourism Authority of Thailand (TAT) promoted ecotourism in national parks (Chaisawat, 2005; Chaisawat & Hsu, 2005). This campaign created opportunities for communities to become involved in commercial ecotourism enterprises in the national parks that were previously dominated by government and commercial stakeholders (Chaisawat, 2005; Chaisawat & Hsu, 2005). However, these communities still lack opportunities to participate in the policy making process in order to improve their livelihoods and resources (Roth, 2004). Furthermore, they are still at risk of losing their customary rights and forest-dependent livelihoods due to continued land use restrictions, land transitions and unresolved tenure conflicts (Santasombat, 2004; Siriphon, 2006). Another concern expressed by communities is the fear that their core cultural values and traditional ecological knowledge may not be passed onto the next generation (Siriphon, 2006). Overall, communities are still struggling to make a sustainable living in northern Thailand's national parks (Roth, 2008; Siriphon, 2006).

The Eleventh National Economic and Social Development Plan (2012-2016) and the National Tourism Development Plan (2012-2016) includes social resilience and community empowerment in development planning in Thailand as the key themes and objectives of the ASEAN Economic Community (AEC) (NESDB, 2007-2011, 2012-2016). The purpose is to contribute to national development as well as to enhance social empowerment and sustainable development. The strategic plans relating to sustainable livelihoods in local communities focus on strengthening democracy, good governance, the rule of law, and promoting human rights and fundamental freedoms (NESDB, 2007-2011, 2012-2016). However, there are several major obstacles to achieving this goal including political

instability, environmental and ecological degradation, low quality education and socio-economic welfare, and illegal drug problems (NESDB, 2007-2011, 2012-2016). Thus, the essential part of the eleventh plan is to emphasise the development of human capital and human security, the promotion of good governance, and equal distribution of socio-economic benefits in order to reduce social inequality (NESDB, 2007-2011, 2012-2016). In order to achieve sustainable development, it is necessary to enhance the communities' resilience by strengthening economic and social capital in order to handle internal and external vulnerability and uncertainty factors (Mongsawad, 2010; NESDB, 2007-2011, 2012-2016).

The objective of this study is to explore the relationships between sustainable livelihood and natural resources management in northern Thailand's national park communities from a socio-ecological and local communities' perspectives. This research uses the sustainable livelihood framework as an analytical tool to further our understanding of livelihoods. And therefore the communities' socio-economic well-being while maintaining of the ecological integrity of these protected areas. To date little research has been carried out in this area.

Research Method

This research applied the sustainable livelihood framework as an analytical tool to explore these selected communities in relation to their perception of livelihood strategies (see Figure 1). Data was collected from six indigenous communities within three national parks in Chiang Mai, namely, Doi Inthanon, Doi Suthep-Pui and Ob Luang National Park, between February and August 2012. Two ethnic hilltribe groups, Hmong and Karen, participated in this study. Participatory Rural Appraisal (PRA) and qualitative research methods were used for data collection and analysis.

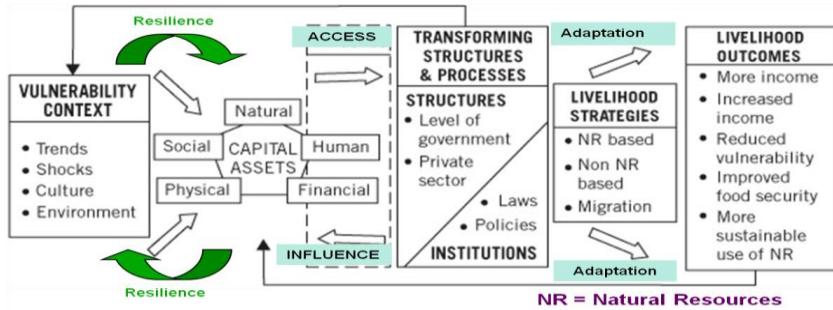


Figure 1 Diagram of Sustainable Livelihood Framework

Source: Adapted from Department for International Development (DFID) (1999)

The collected data was gathered mainly by in-depth semi-structured interviews to gain insightful narratives and information from each community. This report focuses on the interviews with the communities and in particular with pentagon of livelihood capitals in the sustainable livelihood framework. Representatives from three national parks, related non-governmental organizations and academics were interviewed. Document reviews and participant observation provided complementary information. Triangulation through the use of these methods methods and multiple sources of data was applied to increase the validity of the research data.

Research Results

This preliminary research findings draw from a doctoral research project which employed Participatory Rural Appraisal (PRA) methods to investigate socio-ecological perspectives on sustainable livelihood and environmental management in six communities within northern Thailand's national park boundaries. Our preliminary results found that six communities, including Hmong and Karen hilltribe communities, have a wide range of livelihood activities. They

participate in both community-based environmental management and government conservation initiatives within the three national parks. These activities include the annual forest restoration, the establishment of fire breaks, water resources management, and community-based ecotourism. In addition, the cultures and beliefs of Hmong and Karen are reflected in their ritualistic conservation of the forest. Santasombat (2004) mentions that Karen communities have utilized a tree ordination ceremony as the means to protect the tree logging. The Hmong communities have a ceremony, called “Teev Ntoo Xeeb” to show their tradition of protecting the forest areas (Huang & Sumrongthong, 2004; Siriphon, 2006). Both hill tribes participate in different initiatives as a means of gaining legitimization to stay within that area. In this study, the narratives developed from the in-depth interviews should contributed to the endeavours of the Karen and Hmong people to protect the forest and to join the conservation activities in the northern Thailand national parks.

Discussion

Currently, national parks in northern Thailand are home to a large number of hill tribe communities in the park’s boundaries, and these people have had to adapt their livelihoods to comply with the parks' rules and regulations (Roth, 2007, 2008). Since 1998, the Thai government has focused on tourism promotion and economic development in national parks (Sims, 2010). These people have adjusted their traditional livelihood practices to participate in tourism-related activities as a source of income (Sims, 2010). However, some tourism-related activities within the national park employ unsustainable practices that have negative impacts on the environment and community livelihoods. There is also concern regarding the capability of local communities to retain their core cultural values and local knowledge due to the economic development pressures from both internal and external influences, such as commercial pressure from tourism and land use regulations (Sims, 2010).

From the sustainable livelihood framework, there are five livelihood capitals, namely, human, natural, social, physical and financial capitals (Scoones, 1998). Human capital includes individual skills, education and how to maintain security of life. It is essential to emphasize the importance of human capital in terms of exploring human-environmental interaction. The natural capital is linked with the human capital in relation to the use of natural resources for living. In addition, there are concerns regarding social capital as a mechanism to strengthen social sustainability and enhance capability in terms of social resilience and community empowerment (Brock, 1999). Social capital is also necessary for livelihood adaptation, including voluntary participation in conservation initiatives. The physical capital relates to the facilities and infrastructure of the community, which are available for livelihood activities and communal resources (Brock, 1999). The livelihood strategies relate to how one earns a living in terms of financial capital as the means of alleviating poverty through household income (Amornsiriphong & Piemyat, 2012; Pruetipibultham, 2010).

According to the national development plans, it is imperative to set appropriate strategies and promote good governance. There is a need to enhance social resilience and community empowerment to conserve natural resources and rehabilitate environmental quality as the basis of sustainable livelihood for communities (Mongsawad, 2010). In addition, the social networks of local communities have a vital function to manifest communities' views and negotiate with the government. Local networks and external organizations have implemented several natural resources management initiatives in northern Thailand national parks. The Joint Management of Protected Areas (JoMPA) in Ob Luang National Park, a project funded by Danish International Development Assistance and The Thai government is recognized as the one of collaborative conservation initiative between local communities and national park management sectors. This project could provide a guideline to the other northern Thailand national parks to apply collaborative management practices that involve multiple stakeholders as the means of linking protected area management with local communities and these practices are being

recognized as a way of community empowerment and participation in natural resource management decision making.

Conclusion

When this research project is completed, the results will inform scholars' understanding of socio-ecological perspectives associated with the development and implementation of sustainable livelihood strategies in Thailand's national parks. The development of a sustainable livelihood framework could support park managers to address the complex challenges associated with sustainable community and sustainable ecosystem planning and management.

The research emphasizes the need for national park agencies to consider ways to sustain community livelihoods within conservation decision-making policies, while diversifying development opportunities. The communities' livelihood strategies were developed in terms of social resilience and self-capability to deal with the impact of socio-economic and environmental changes. As a result, community based natural resource management is viewed as having a significant role in achieving conservation goals while providing sustainable outcomes in relation to livelihood strategies. Collaborative management provides more sustainable alternative for future national park management and long-term conservation initiatives.

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