

# *Resource Development and the Perpetuation of Poverty in Rural Laos*

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**ABSTRACT** *Government efforts to industrialise and modernise the Lao economy through intensive resource development are having adverse effects on rural livelihoods as resources are degraded and access to limited land and natural resources has intensified. In one of the country's key river basins, Nam Ngum, a series of resource developments including hydropower, mining and agricultural plantations have modified the landscape over the last four decades. Uncoordinated resource developments are putting intense pressure on increasingly scarce natural resources and affecting the lives of people who are dependent on them. Economic diversification of rural households in Feuang District in the Nam Ngum River Basin has created significant discrepancies between the rich and the poor, yet all households remain primarily dependent on agriculture. Land is of enduring importance to rural livelihoods. National development intervention has failed to secure basic livelihoods for rural households.*

**KEY WORDS** *Resource development; Laos; land; livelihoods.*

## **Introduction**

High has described the drive to capitalise on natural resources for economic development in Laos as an effect of political processes. She notes that in the past natural features were seen as physical obstacles to investment capital. In recent decades, however, there has been a substantial shift in discourses on resource wealth in Laos, with its potential for development being firmly 'framed within a language of resources'. She claims that 'resourcification' occurs as 'natural features are judged as useful in relation to human wants' (High 2010, pp. 154, 156). In other words, the drive to turn natural resources into capital stems from the ways in which political actors appraise the value of resources, and their ability to benefit from resources. Although the Lao government had abandoned a centrally planned economic system in the mid-1980s and opened its market to private investors, the country's economy remains regulated by a bureaucratic state apparatus under the leadership of a single political party, the Lao People's Revolutionary Party. That raises questions about the relationship between a centralised political party and

local people, and how resources might be assessed, who has rights to resources and how resources should be managed.

While political processes underpin the ways in which natural resources are valued in Laos, the party-state is not a consolidated force that single-handedly determines the outcomes of development. There are various actors, both state and private, at multiple scales, whose everyday actions transform the rural landscape, and people's relationship with land and resources. This paper highlights the complex and messy interplay of actors and their uncoordinated efforts to claim land and natural resources through a case study of Feuang District in the Nam Ngum River Basin. It highlights the multiple ways in which resources are valued by different actors and how competing interests to develop resources have transformed the rural landscape. By examining the lived experiences of rural households in an area affected by a series of resource developments, the paper further demonstrates that rural farmers are far from unresponsive to change or prone to stasis. By contrast, varying strategies have been undertaken by households to maintain their access to land and resources, and their efforts to adapt livelihoods, despite being affected by the blunt instrument of 'development'.

### Development in Laos

Jonsson (2011) notes the interchangeable use of *kaan pathanaa* (development) and *kvaam jaroen* (progress) in the Thai language and the notion of progress represented by access to roads, market, schools, health care and modernity. In Laos, too, the word *kaan phatthanaa* connotes progress and a sense of improvement from one state of being to another. This sentiment of change for betterment, modernity, and prosperity invokes a linear projection of development rising over time. The government of Laos officially defines development as a comprehensive change which includes improved infrastructure, and access to public services, strong institutions, people's political awareness, social order and stability (Prime Minister Decree No. 285, issued on 13 October 2009). Although achieving economic growth and eradicating poverty are critical national themes, in the gaze of the government, development is also seen as a process of strengthening the bureaucratic apparatus to rule and govern people under a single-party system led by the Lao People's Revolutionary Party. In order to produce manageable units of development, in 2004 the government promoted a systematic approach in identifying 72 poor districts based on the percentage of villages that were classified as 'poor'. Poor villages were determined by the numbers of households that failed to meet key social and economic markers, including incomes and food sufficiency, access to rural infrastructure such as roads and irrigation, level of education, and access to health services and clean water.

Rural development and tackling poverty have been critical national agenda themes for some time (Phraxayavong 2009). In recent years, government efforts to tackle poverty have focused on graduating from the least developed country status by 2020. This led not only to the standardising of development criteria and defining accountable spatial units to manage development but also led the government to focus on the overall growth of the economy through modernisation and industrialisation. The 7th Nation Social and Economic Development Plan (NSED) approved by the National Assembly in 2011 particularly called for all economic sectors to 'modernise' and increase their productivity to achieve economic growth.

The government particularly promoted resource development in sectors such as hydropower and mining as the key drivers of growth, but has more recently focused on the agricultural sector. In the NSEDP, the government outlined strategies to intensify and industrialise agricultural production through application of improved agricultural technology. This echoes the long-standing government policy to ban swidden agriculture in the uplands as the practice was deemed to be backward and unproductive (Ducourtieux *et al.* 2005). It also reflected the government's particular strategic vision known as 'turning land into capital' (Dwyer 2007), which promotes foreign investment in the agricultural and forestry sectors to boost production and trade. However, over time, the government has become increasingly 'less confident in the ability of small farmers ... to produce for export markets' (Baird 2011, p. 14). Although the government officially supports the land rights of small farmers, their exclusion from productive land is becoming increasingly common as large scale resource developments are implemented, as is the case in Feuang District.

### Resource development in the Nam Ngum River Basin

*Nam Ngum River Basin, a microcosm of resource development in Laos*

Located in central Laos, Nam Ngum 1 hydropower dam, completed in 1971, has been the lynchpin project of the country's natural resource-based export economy. While its abilities to generate energy for export was superseded by the Nam Theun 2 dam in 2009, the complex network of hydropower dams in the Nam Ngum River Basin makes it one of the key resource developments in the country. In recent years, development in the river basin has increased dramatically in line with the government's emphasis on natural resource development as the centrepiece of its economic policy. The Nam Ngum River Basin covers approximately 16 000 km<sup>2</sup> of land in north-central Laos cutting across six administrative boundaries: Vientiane Province, Vientiane Municipality, Xieng Khouang Province and small parts of Luang Prabang and Bolikhamxay, and newly created Xaysomboun Province. The area accommodates over 500 000 people, or nearly 10 percent of the national population, including some of its poorest communities, and contributes to a third of the country's total dry season rice production.

Five hydropower dams have been completed in the Nam Ngum River Basin and another four dams are either under construction or planned. In addition to hydropower development, mineral production has also increased in the area over the last decade. Over 6000 km<sup>2</sup> of mining exploration and operation concessions were approved by 2006. The river basin hosts one of the largest mining projects in Laos, the Phu Bia Gold Mine and associated Phu Kham Copper-Gold Project, owned by Pan Australian Resources. At the same time there has been a marked growth in land under commercial agriculture, particularly through contract farming arrangements. The area has been earmarked for expansion of commercial crop plantation, mainly rubber.

There is growing concern that cumulative as well as project-specific impacts from mining, hydropower, tree plantations and other land-use changes in the Nam Ngum River Basin could be problematic if activities are not coordinated or properly regulated (Vattenfall *et al.* 2008; World Bank 2010). Lack of coordination is already exemplified in the profusion of resource development plans and their spatial overlap across the river basin. Although a committee was established in 2010 to

coordinate across the different sectors to plan for sustainable development (Boulapha & Lyle 2011), the committee's role and its abilities to coordinate remain obscure. Meanwhile, various actors continue to authorise and engage in resource development activities. To examine these uncoordinated development processes we now turn our attention to Feuang District.

### Feuang District

Feuang District (Muang Feuang), located in the northeast of Vientiane Province, consists of valleys abutting karst formations, with an elevation ranging from 30 to 250 m asl (Figure 1). It became an official district in 1985 and was further split into two districts, Met and Feuang, in 2001. In 2009, a new district, Meun, was further carved out from the two districts. Regardless of the transient administrative structure, the area is more commonly known in Laos as Muang Feuang. A popular song 'Saam Meun Muang Feuang' by Sombat Keokhamdi portrays Muang Feuang as a picturesque Nam Lik river valley nestled amongst karst formations. The title of the song refers to a legend of the early settlers who named the area after 30 000 cottages made out of rice stalks. The song praises Muang Feuang for its natural beauty and suggests that while it is not a prosperous settlement, it is a place of fertile and plentiful land (*din maak mi*) where outsiders are welcomed.

Over the years, waves of migrants have settled in Muang Feuang. Oral histories of villages in the district suggest that the lower Nam Lik valley has been occupied for well over two centuries. It became a host for refugees arriving from the northeastern part of the country including Houaphanh and Xiengkhouang Provinces during the civil war (1953–75). Many wartime refugees settled in lowland valleys and engaged predominantly in paddy rice cultivation. The most significant demographic change in Muang Feuang occurred in 2010, when over a thousand households were relocated from 16 villages in Xaysomboun District, where the Nam Ngum 2 hydropower dam complex was constructed. These households were accommodated in a newly established village downstream of the Nam Lik 1/2 dam. They were initially told to relocate in separate communities across the Feuang District, but the company responsible for relocation struggled to find land for over 1000 households. The land on which the new village was established was considered marginal agricultural land where farmers from nearby villages had previously grazed cattle, foraged for forest products and occasionally cleared vegetation to cultivate upland rice. Upon arrival there, all the households resettled from Xaysomboun were allocated residential land and a house. However, not all households were granted productive farm land (0.5 ha) as had been promised to them prior to the relocation due to the limited land area. For those that did receive farm land, its location and quality were neither optimal nor fit for paddy rice farming. Some households had to travel more than 1 hour by bus to get to their farm land. Others found it difficult to cultivate their land, as it required substantial labour inputs and financial resources. Only a few relocated households were able to purchase productive farm land near the new village with money that they had earned from sales of their land and livestock in their previous village.

The sudden influx of a large population into the district has intensified competition for agricultural land and natural resources. This competition is exemplified in the rapid increase in farm land prices, and accounts of tension between the resettlement village and neighbouring villages. The tensions between

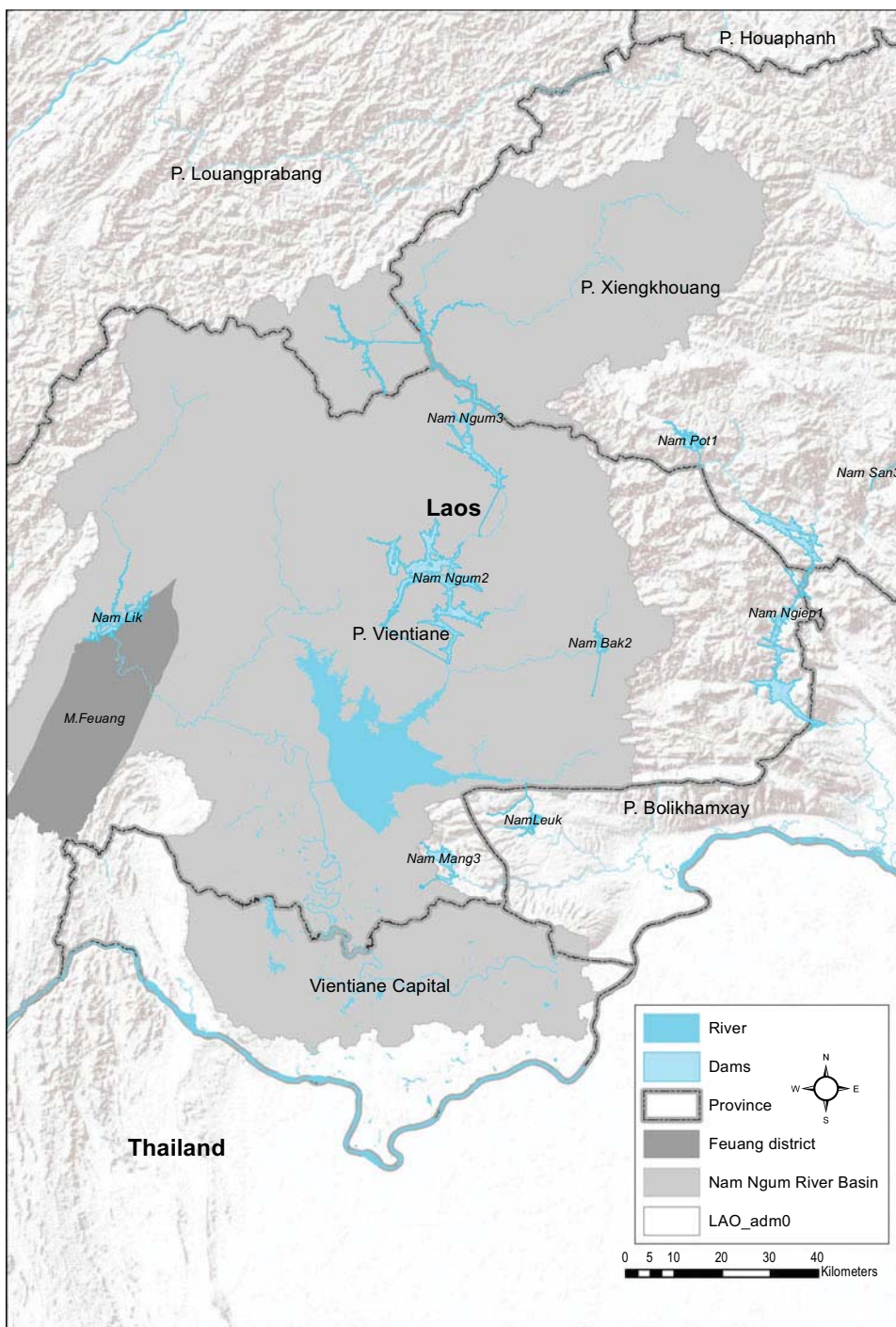


FIGURE 1. Nam Ngum River Basin. Sources: Esri, USGS, NOAA.



new and old villages have been further aggravated as new migrants, lacking access to farm land, have started to encroach on forest land areas for farming and collection of forest products.

Competition for land and natural resources in Feuang has not only intensified as a result of the sudden demographic spike induced by resource development in the Nam Ngum River Basin, but also as the district has become more accessible and integrated into the market economy. Until recently, Feuang District was difficult to reach from Vientiane, and was considered one of the poorest regions in central Laos. However, during the last two decades, development of road and communication networks contributed to attracting both foreign and domestic investors to the district. One such investor is the China International Water and Electric Company (CWE), which developed Nam Lik 1/2 hydropower dam in 2010, one part of the complex network of hydropower infrastructure across the Nam Ngum River Basin. There has also been an influx of mining operations extracting coal, barite, sand and limestone. According to Sugimoto (2010), some 4500 ha of mining concessions for coal and barite have been in the prospecting stage in Feuang since September 2009. The government has also enclosed 47 000 ha of forest land, which covers an area across 10 villages in the district, for commercial timber harvesting as part of a project promoting community-based forestry funded by the World Bank and the government of Finland. In addition to these investments in mineral wealth, timber stocks and hydropower potential, a number of domestic private investors have invested in commercial agricultural activities. Between 2004 and 2009 there was a five-fold increase in the area cultivated for commercial plantations including agarwood, rubber, cassava, and jatropha.

Increased accessibility has also encouraged travel and tour companies to organise adventure tours that feature rustic rural landscapes. For example, Green Discovery, based in Vientiane, started offering a tour package in the district in 2011, particularly targeting foreign adventure seekers and offering a combination of outdoor activities including kayaking in Nam Lik, and mountain activities including hiking, camping, zip-lining and abseiling. Such activities place value on the aesthetic beauty of the landscape as opposed to the material value of the resources exemplified in mining, hydropower and plantations.

These examples of resource-based investment activities in Feuang District exemplify the expansion of the market economy into a previously less accessible rural area. A range of natural resources, including water, forest, and land, are not merely appraised for aesthetic qualities or their subsistence values but rather for their economic value and various kinds of 'modern' development potential. Such have been the competing interests seeking to tap into the development potential of local resources that there are overlapping areas of investment activities. These significant overlaps emphasise both the relentless drive to development and the lack of coordination across various levels of government. Although development intervention in 'poor' districts such as Feuang aimed to improve its accessibility, facilitate market integration and reduce poverty (Feuang District Government 2009), the intensification of resource development and subsequent scarcity of resources threaten the livelihoods of rural people. Feuang offers an example of the complex and contested nature of 'development' in rural Laos and its inequitable impact on rural livelihoods.

### Livelihood diversification and inequitable access to land and resources

This section discusses the livelihood diversification that took place in the villages in Feuang that were there before 2010. A research team consisting of scholars and students from the National University of Laos carried out a study in two lowland villages downstream from the new Nam Lik 1/2 hydropower dam. The team carried out focus group interviews in two villages in 2011 with a group of village leaders and elders, followed by a stratified sample of 71 households selected for household interviews in two villages. A year later, further household surveys were undertaken in four villages (Woollacott 2012). Villages were chosen to represent a degree of diversity in terms of history, current cash-crop production, forest area and migration histories. The households were engaged in multiple activities including lowland paddy rice cultivation, upland swidden and commercial farming, fisheries, food gathering in secondary forests and animal husbandry. Rural livelihoods in the district were still highly dependent on the use of natural resources. However, the extent of dependence on natural resources varied greatly across socio-economic clusters. The household surveys show significant differences between the clusters in terms of livelihood activities, access to land and ultimately household income.

The main sources of household livelihood in two typical villages downstream from Nam Lik 1/2 could be differentiated into four economic clusters based on the level of household income (Figure 2). Cluster 1 ( $n = 11$ ) is a group of households with estimated household incomes below 10 million kip (approximately US\$1200) per year; Cluster 2 ( $n = 42$ ) includes households with income ranging between 10 and 30 million kip (between US\$1200 and 3700) per year; Cluster 3 ( $n = 11$ ) includes households with income ranging between 30 and 60 million kip (between US\$3700 and 7300) per year; and finally, Cluster 4 ( $n = 7$ ) includes households whose income is over 60 million kip (above US\$7300) per year. The majority of sample households (nearly 75 per cent) are in Clusters 1 and 2, and fall short of the

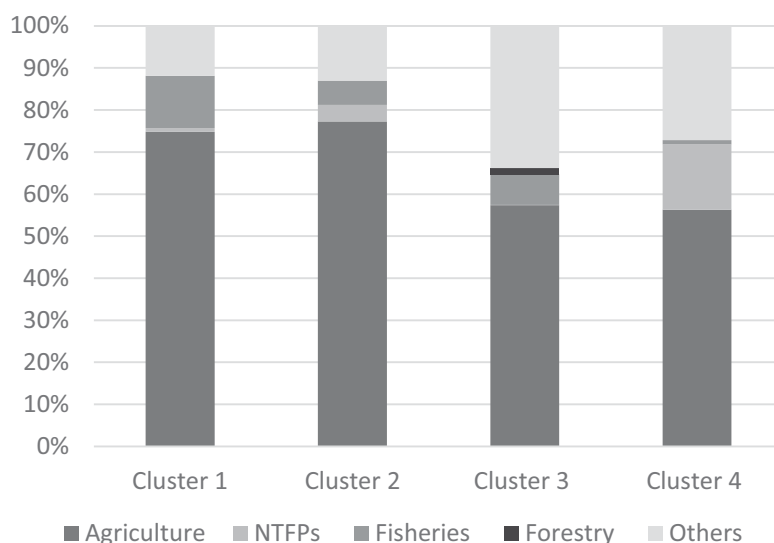


FIGURE 2. Household livelihood composition by economic clusters. *Source:* pilot study in Feuang District (June 2011).

district's target household income of approximately US\$4800 per household (or US\$800 per person). There is an approximately 10-fold difference between the average household income of the poor in Cluster 1 (approximately US\$870 per household per year) and the relatively well-off households in Cluster 4 (approximately US\$9500 per household per year).

In terms of the composition of the household economy, Cluster 1 and 2 households show a greater dependence on subsistence food production and collection of wild food, including capture fisheries in rivers and streams, collection of forest vegetables and hunting of wildlife from secondary forests. Close to 70 per cent of their household economic production is accounted for by paddy rice cultivation and upland rice production. Cluster 1 households particularly depend on upland swidden agriculture to meet household demand for food (45 per cent). Households in Clusters 1 and 2 are least dependent on non-agricultural wage labour, which is approximately 10–15 per cent of their overall income. In contrast, Cluster 3 and 4 households show less dependence on basic food production (less than 60 per cent on paddy, swidden and garden production combined), while nearly 30 per cent of their household economy is based on non-agricultural wage labour. Although households in Cluster 3 and 4 show higher dependence on non-agricultural sources of income outside the villages, their livelihoods are not entirely removed from the local natural resource base. Cluster 4, in particular, shows that a relatively high share of income accrues from non-timber forest products. Some households in this cluster are engaged in commercial collection and trade of non-timber forest products, such as *haem* (berberine) vines that grow in secondary forest areas near the Nam Lik reservoir. These households organised the collection of medicinal plants in the area by hiring other villagers and supplied the harvested products to pharmaceutical companies based in Vientiane. This required organisation and management skills as well as financial resources to obtain a vehicle and pay for the harvested material.

The economically better-off households have access to the largest areas of productive land (e.g. paddies, gardens, grazing fields). In contrast, poor households have inadequate land access and access is limited to marginal agricultural land such as upland fields, where households often do not have secure land title (Figure 3). Such households face difficulties in claiming and maintaining legitimate access to land. Interviews conducted in four villages during 2012 suggest that villagers are actually losing access to 'reserve' land (*din hae*) and to open-access communal land as a result of recent population growth. Improved road networks and market access were also increasing the demand for productive agricultural land as farmers took greater interest in cash-crop production.

As the demand for productive land increased and upland areas were converted into permanent agricultural fields through the introduction of commercial crops such as cassava and rubber, the forest area also began to dwindle. Households were asked to recall their past experiences of collecting forest products. Between 2007 and 2011, the number of households collecting rattan declined from 21 to 7. Households collecting forest vegetables as well as medicinal plants such as *haem* also declined from 21 to 12. Most had stopped collecting forest products as forests were cleared and it became increasingly difficult and time consuming. Loss of access to forest products was triggered by the development of Nam Lik 1/2 hydropower which inundated swidden and fallow forests where non-timber forest products had previously been collected.



Clusters	Paddy	Swidden	Garden	Pasture	Mean Total
Cluster 1	0.7	0.6	0.0	0.5	1.9
Cluster 2	1.4	0.2	0.4	1.3	3.2
Cluster 3	2.1	0.1	0.5	2.6	5.2
Cluster 4	2.3	0.2	1.2	3.7	7.4

Unit: ha

FIGURE 3. Mean land area accessed by households. *Source:* pilot study in Feuang District (June 2011).

Households were also losing access to aquatic resources. The number of households that were engaged in capture fisheries in rivers and streams declined from 90 to 69 per cent between 2007 and 2011. While the volume and quality of fish catch both declined following the construction of Nam Lik 1/2 hydropower, a new commercial opportunity emerged in the reservoir of Nam Lik 1/2 dam. However, this was accessible only to households that were able to pay for new fishing gear, boats, and fishing licences.

Rural households are engaged in a diverse range of livelihood activities and are increasingly incorporated into the market economy. The degree of market access and engagement in diversified livelihood activities varied strongly between households that were well-off or poor, as their asset base and livelihood opportunities became distinguished. Well-off households have been able to invest their income from sales of rice and non-agricultural wage labour into commercial agricultural activities such as rubber and animal husbandry. This active investment in the uplands allowed them to make de facto claims to the land without having a secure title. Active occupation and investment in permanent crops such as rubber also allowed households to secure long-term access to land. Poor households also held on to their marginal agricultural land, yet unlike the well-off they were unable to use their land for permanent crop as they lacked financial resources. Although many aspired to invest in crops such as rubber, they were unable to produce an adequate surplus due to labour shortages and the generally low yield of agricultural production.

### Resource development and adapting lives

Feuang demonstrates the complex interplay of actors and strategies that shape development processes and affect the ways in which resources are valued and used in Laos. Under the thin veneer of socialism, a capitalist and competitive economy has emerged. Central government policy to achieve economic growth and eradicate poverty through investment in the resource sector has been neither uniform nor coordinated, but rather fraught with competing interests and the unwillingness of actors to collaborate in the collective decision-making process. The lack of coordination among key actors is exemplified by the failure of the national committee to manage the Nam Ngum River Basin. The lack of uniformity in the

development process is evident, as the local government continues to struggle to manage the sudden influx of resettled populations, posing new pressures on land, while various external interests compete for mineral, riverine and land resources.

Market integration has fundamentally transformed the ways in which natural resources are valued. Although integration into the market economy has promoted economic growth, it has also contributed to intensifying competition to access resources among key actors, at the scale of large companies and at the scale of competing households. At the same time, development has brought unpredicted effects. Increased commercialisation of agriculture in upland areas has contributed to a decline of swidden and fallow forests in the district, which is consistent with the government's long-standing policy to eradicate upland swidden farming, but has threatened the diverse livelihoods of the poorest people. The long-standing national policy to eradicate swidden farming in the uplands has done nothing to contribute to the eradication of poverty. Instead, the decline of swidden and fallow forest in the upland has further delimited access of the rural poor to the basic means of production and to critical food sources.

Despite the constraints, rural farmers are not helpless but rather innovative and adaptable within a changing socio-economic environment. Market integration has offered households new opportunities for livelihood diversification and reorientation, and has brought such new cash crops as jatropha, cassava, rubber, and agarwood in addition to their subsistence food production. Although agriculture's share of income has declined for the majority of the households, they continue to re-invest in agriculture, especially in marginal area where farmers can cultivate crops such as rubber and cassava. However, trajectories of diversification and adaptation are different amongst households. Well-off households are making active claims to marginal agricultural land in the uplands, which in the past had been largely open access and communal, and using surplus income from rice production and sales of large livestock to invest in cash crops. Relatively poor households are also diversifying their livelihood activities, but are constrained by their lack of basic production means and access to financial resources. Members of poor households are not entirely moving out of agriculture or the area. They, too, are also holding on to upland fields, albeit precariously. The competition for land, and the threat to livelihoods of swidden agriculturalists and forest users, is one example of the predicament of people whose labour is not required in the global capitalist system, but who nonetheless experience a seemingly inexorable and creeping land grab that is beyond their control (Li 2011). It demonstrates how crucial the retention of land is for rural livelihoods.

The proliferation of resource development has not benefited all actors despite its contribution to aggregate economic growth. Moreover, as in other parts of Southeast Asia, rural livelihoods in Laos, while rapidly diversifying, are not delinked from agriculture and other land-based activities. Yet, on the contrary, in Feuang and elsewhere, land remains a critical source of wealth and security for rural households, despite intense pressures on it and the resultant tendency for degradation (Thongmanivong & Fujita 2006; Lestrelin & Giordano 2007). Agriculture is a key part of a diversified livelihood portfolio. Households continue to re-invest in agricultural activities, retain and sometimes expand their land holdings, and increasingly seek to access marginal agricultural land to cultivate

commercial crops. Under the guise of development interventions, exclusion of the poor from land and natural resources has not only deprived them of basic rights to resources but more fundamentally their rights to food. The benefits of resource development in Laos have thus had both a negative and an uneven effect on food security and poverty in rural communities.

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