

Impact of Rural Development on the Poor Farmers in Uplands of Laos

ผลกระทบของการพัฒนาชนบทต่อชาวนายากจนในเขตพื้นที่สูงของสาธารณรัฐประชาธิปไตยประชาชนลาว

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ABSTRACT

In uplands of Lao PDR, the severity of poverty is mostly found due to their mountainous constraint, preventing the accessibility of social development. In response, four main policy themes were set up: stabilization of shifting cultivation, eradication of opium production, land and forestry allocation, and relocation and consolidation of villages. Through the implementation, these four main strategies have brought some impact to uplands. The numbers of shifting cultivators and opium producers were decreased considerably. Though, some problems have been left in the performance of the land allocation and relocation of remote villages to new locations. Social problems due to the different cultures, traditions, and livelihoods of merged villagers have occurred. Hence, these policy themes still need to be reviewed and improved with the support of specific researches on diverse upland livelihoods.

บทคัดย่อ

ในเขตพื้นที่สูงชันของสาธารณรัฐประชาธิปไตยประชาชนลาว ความยากจนจะพบเห็นมากเนื่องจากข้อจำกัดที่เป็นภูเขา อันเป็นอุปสรรคต่อการเข้าถึงของการพัฒนาต่างๆ ดังนั้นเพื่อแก้ไขปัญหาดังกล่าว รัฐบาลได้วางนโยบายที่ประกอบด้วย : การยับยั้งการทำไร่เลื่อนลอย การหยุดการปลูกฝิ่น การจัดสรรที่ดินป่าไม้ การโยกย้ายและการรวมหมู่บ้าน โดยนโยบายเหล่านั้นได้สร้างการเปลี่ยนแปลงในเชิงบวก ทำให้จำนวนของผู้ที่ทำไร่เลื่อนลอย และผู้ปลูกฝิ่นได้ลดลงเป็นอย่างมาก อย่างไรก็ตามปัญหาในหลายด้านก็ยังมีอยู่ ที่เป็นผลมาจากการดำเนินนโยบายการจัดสรรที่ดิน และนโยบายการย้ายหมู่บ้านที่ห่างไกลความเจริญไปยังหมู่บ้านใหม่ ทำให้เกิดปัญหาสังคมขึ้น อันเนื่องมาจากวัฒนธรรมประเพณี และวิถีชีวิตที่แตกต่างกันของชาวบ้านที่ถูกย้ายมา และชาวบ้านที่อยู่ดั้งเดิม ดังนั้นนโยบายเหล่านี้ยังคงต้องมีการทบทวน และปรับปรุง บนพื้นฐานการวิจัยที่เฉพาะเจาะจงถึงการดำรงชีวิตที่มีความหลากหลายในเขตพื้นที่สูงชัน.

Key Words : Poverty, Upland development policies, Upland livelihood.

คำสำคัญ: ความยากจน นโยบายการพัฒนาในเขตพื้นที่สูง การดำรงชีวิตในเขตพื้นที่สูง

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Introduction

Lao PDR is the most rural country in Southeast Asia with about 68% of the total population living in rural areas. It is estimated that 38% of rural people live under the poverty line (WB, 2009). Nationally, out of 72 classified poverty districts, 47 are located in the remote upland areas; and of that subtotal, 39 are facing problems related to rice shortage (Khamhung, 2004). To lift up the living condition of rural people, several programs and strategies have been laid out on the Socio-Economic Development Plan, mainly focused on the agriculture and forestry sector as it provides most of the employment, social and culture base for more than 80% of the population, particularly the poor (GoL, 2006). In the northern regions where much of the land occupied by mountains preventing the possibility of planting crops and making a living from agriculture, poverty is mostly found. By several policies implemented, livelihoods of upland people have experienced changing condition in terms of agricultural practices. Through this change, some new possibilities have been brought to farmers, but also challenges since the poorest are not able to reap the benefits of this change. Hence, this study emphasized on the impact of development strategies implemented for uplands during the last decades which have contributed some transformation to upland livelihoods. The study aimed at providing important points for further suitable improvement of upland strategies.

Materials and methods

This paper was a part of thesis and written by the use of documents review and some data collected from the studied areas. 80% of information described

in this paper was mainly review from policy and strategy documents of the government, particularly development strategies for uplands. Several reports of relevant governmental agencies, international organizations, non-governmental organization, and researches in upland of Laos have been applied. Another 20% was from the data collection of a survey research for thesis work. Some figures and tables presented in the paper were taken from the data surveyed of 80 upland families who have transited their traditional single farming to a more intensified system, agroforestry. The survey was conducted in two Northern districts, Namor in Oudomxay province and Phonxay in Luang prabang province, during 20 March to 30 April in 2011, by using stratified sampling and structured questionnaires to gain information on farm details and benefits gained from the application of new technologies. Collected data was analyzed by using descriptive statistics, such as means and percentage, in program SPSS for Windows Version 17.0.

Results and discussion**General rural livelihood in uplands**

Mainly, upland population is dominated by various ethnic groups who generally have diversity of languages and cultures. Although this diversity is potentially one of the greatest strengths, it is often viewed by officials and planners as a difficulty to the national development and modernization. Furthermore, highland people are commonly found practicing shifting cultivation or swidden farming to produce upland rice. It was indicated that shifting cultivation involved more than 150,000 households, or around 25% of the rural inhabitant (Roder, 2001).

Under the population pressure and government restriction on the deforestation, traditional shifting cultivations have faced the problem of lower productivity and un-sustainability due to the consequence of shorten fallow periods (De Rouw, 2005). Hence, upland farmers have faced more problems of lower productivity, food insecurity, and poverty. It was implied that the level of rural poverty remains highest in the areas where characterized by remoteness, mountainous terrain, and poor condition for farming, representing 50% in the Central Southern highlands and 46% in the Northern highlands (WB, 2006). From these reports, it showed that general livelihood of upland people were still in poverty.

Rural development strategies for uplands

With the national goal set to move beyond the category of Least Developed Country by the year 2020, the government defined the Eight National Priority Programs in the 6th Party Congress in 1996 as its main support and major reference for the national planning system. Of these eight, rural development was one included as the forefront to eradicate the poverty (GoL, 2001). According to the share of agriculture provided around 75% of total employment with an estimated of 620,000 households depend on agriculture, of which some 490,000 families relied on subsistence farming (GoL, 2004), the agriculture and forestry sector has been considered as the leading sector to promote socio-economic development up to the year 2020, gradually provide the foundation for the shift from subsistent to industrialized economy (NGPES, 2004a). Although the agricultural contribution to overall gross domestic product (GDP) was lately declining, in which its share fell to 29% of GDP in 2010 as compared to 36% in 2009, due to the

increased share of industrial sector; several report implied that the share of agriculture in the total labor force still provided 75%. Thus, it seemed that declining of agricultural growth is leaving an increasingly smaller share of national income to the majority of the population, largely living in rural areas (CIA, 2010; WFP, 2009). In uplands, different policies, particularly the shift from subsistence farming towards market oriented agriculture, have brought some changes to livelihoods for the upland populations. Among these, four major policy themes contributing to several possibilities and challenges are the stabilization of shifting cultivation, the opium eradication programs, land and forest allocation, and focal site strategy and village relocation and consolidation program.

The stabilization of shifting cultivation policy

Shifting cultivation that employs periods of forest generation to sustain its productivity is the most common agricultural practice which can be seen among upland farmers (ICEM, 2003). With the increasing of the population, the long period of fallow needed for sustainable shifting cultivation is shortened, contributing to the environment degradation. To this negative impact, the government sees shifting cultivation as unsustainable and intends to stabilize it by 2005, with a complete stabilization by 2010. In respond, diversification of upland farming, development of road linkage to open the market, land use zoning, and rural credit extension and land allocation have been implemented to support the stabilization of swidden cultivation program (MAF, 1999). As a result, during 1990-2001 shifting

cultivation was said to be dropped in land area from 249,000 ha to 110,000 ha, with the number of people involved falling from 210,000 families to 99,000 families (Thomas, 2004). Later, it was more successful, from 118,900 ha in 2001 to 29,400 ha in 2005, mainly in the Northern provinces; and it represented a drop about 174,000 families in 2000 to 33,000 families in 2005 (CPI, 2006a). In 2008, it was further reported that the area under swidden cultivation was left only 20-30 % of total cultivated area in the northern uplands while about 70-80 % of all farming areas were in a state of transition (WB, 2008). This was mainly from the introduction of diversification of farming, which could provide alternative choices for upland farmers to swift from a single cropping to a more sedentary integrated farming.

From a data surveyed in studied areas, Namor in Oudomxay province and Phonxay in Luang Prabang province, it indicated that many farmers have intensified their farming systems by integrating trees with cash crops and animals in the same unit of land. Analyzing data gathered from species used in the farms, it indicated that many kinds of trees, crops, and animals were intensively incorporated. As representing in Table 1, it shows that 51.25 of farmers grew fruit trees. Among fruit trees, the most favorable trees found growing in farm plots were prunes, pomelo, litchi, longan, and orange respectively. Besides, woody trees such as, rubber tree, teak, and agarwood were also combined, accounting for 31.25%. The most popular woody species was rubber tree. Sometimes, famers preferred to combine both woody tree and fruit tree species together, covered for 17.50%.

Table 1 Percentage of integrated species grown in the farm.

Species integrated	Percentage
Trees	
Fruit trees	51.25
Woody trees	31.25
Woody trees & fruit trees	17.50
Crops	
Fruit	33.33
Field crops & fruit	33.33
Field crops	20.29
Annual crops	5.80
Grass	4.35
Annual & field crops	2.90
Animals	
Poultry	23.08
Goats	15.38
Pig	15.38
Buffalo	7.69
Buffalo & pig	7.69
Cow	7.69
Cow & chicken	7.69
Pig & goat	7.69
Pig & poultry	7.69

Several kinds of crops were inter-planted in farms. About 33.33% of farmers incorporated fruit, mostly pineapple. In common, a combination of field crops and fruit were also discovered in which pineapple and soybean were mostly employed. Following of 20.29% was field crop such as, maize, soybean, sugar cane, sesame, job's tear, and galingale. Moreover, other groups like annual crop (upland rice), grass (broom grass), and annual crop with field crops, were also engaged. For livestock,

two kinds of animals were raised together in maximum. About 23.08% was poultry following by goats and pig. Most of animals combined in the farm were naturally free-grassing. Only pig and cattle were confined in a pen. Through diversification of farming, traditional livelihood of former shifting cultivators, mainly growing only upland rice cultivation, have been more transited to a variety of cash crops and livestock integration. However, some research showed that although some shifting cultivators have already switched their farming systems to sedentary agricultural systems, many farmers still have not completely changed their farming systems because of various constraints including limited availability of flat land, household labor supporting more intensified form of agriculture, limited knowledge for growing wetland rice as well as crop science (Gansberghe, 2005).

Opium eradication

For high land people, opium has provided cash income to compensate for poor rice productivity at high elevations. It is mostly produced by ethnic minorities as their main cash crop, medicine, recreational and traditional ceremonial purposes, but in many cases frequent use leads to addiction, consequently contributing to social and economic problems, and increasing community poverty (Boonwaat, 2004). Opium production, addiction and poverty were closely interrelated. As highland paddy sites are scarce, opium was viewed as a special case of the shifting cultivation problem (NAFRI, 2005). Of the 47 poorest districts identified in the national growth and poverty reduction strategy, 32 have cultivated opium poppy. Efforts to control opium

production began in the 1990s. In 2006, the Lao Government, with the support of the United Nations Office on Drugs and Crimes (UNODC), launched a national program strategy for the post opium development and an alternative livelihoods action plan targeting 1,000 priority former opium growing village. As the result, a survey showed a steady decline of opium poppy cultivation since 1998. Opium poppy cultivation was down to 12,000 hectares, from 14,100 in 2002. Even though the number is declining, it was estimated that 40,000 households would continue to derive the largest share of their income from the 120 metric tons of opium harvested in 2003 (UNODC, 2003). In 2006 and further in 2007, the area under opium production decreased to 1,500 ha. This was a reduction by 94% between 1998 and 2007, which has contributed to the decrease in the global opium cultivation share of less 1%. Yet, some surveys demonstrated that, despite remarkable successes, a total elimination of opium poppy cultivation had not yet been achieved. It was necessary to closely monitor the remaining opium cultivation, not only to sustain the achievements reached so far but also to prevent a possible resumption of opium poppy cultivation (UNODC, 2007). To prevent this, former opium growers were introduced to diversify their cropping. Through this, general standards of living of former opium poppy communities have been improved. A socio-economic survey reported that the former poppy growing communities had intensified their entire agricultural system resulting in increased rice production since 2005 from 2.28 to 2.45 tons per family in 2007. This was a slight improvement of food security for former poppy growing households, 59% of them became rice

sufficient in 2007 comparing to 56% in 2005 (UN, 2008).

In addition, analyzed data of upland farmers in the researched areas where some opium had been produced, the result from the diversification farming system by combining crops and animal in the trees plantation, it showed that farmers were able to sustain their food production for the family and also gain additional income from extra production.

Table 2 The annual average yield and income from intensified farming per hectare.

Details	Average annual production		
	Yield (kg)	Sold (kg)	Value (\$USD*)
Timber latex	16	16	27
Fruit tree	76	66	22
Crops	1,504	792	128
Animals ** (head)	26	16	286

* 1 \$UDS=8,000 LAK

** Animals were counted in head

Investigated data in Table 2 showed that one family could harvest production from timber about 16 kg yr⁻¹ ha⁻¹ and could generate income about 27 \$USD yr⁻¹ ha⁻¹. This was mainly from rubber latex only due to other kinds of woody trees like agarwood and teak were not-fully formed. For families who assimilated fruit trees were able to collect fruit of 76 kg yr⁻¹ ha⁻¹ and sell their extra production to earn additional income for 22 \$USD yr⁻¹ ha⁻¹. Furthermore, farmers indicated that they could meet their food sufficiency needs from integrated crops (i.e. pineapple, maize, soybean, galingale, sesame) by the average yield of 1,504 kg yr⁻¹ ha⁻¹. Most of them also

claimed that they were able to sell some of their surplus crops to generate household income about 128 \$USD yr⁻¹ ha⁻¹. Raising animals could also give them the highest returns, with the average about 286 \$USD yr⁻¹ ha⁻¹. This was because of the high price of cattle per head. Through intensifying farming systems, upland farmers, particularly former poppy growers, could have more alternative choice for sustaining their food to supply for daily consumption and also could gain additional income for families.

Land and forest allocation program

Along with eliminating shifting cultivation and opium production, the government wants upland communities to practice permanent agriculture on defined land parcels, with access to infrastructure and social services. To achieve this, tools developed during 1989-96 included land use planning and land and forest allocation, with the aims to promote crops by replacing shifting cultivation through allocation and titling of land for production and to protect forest through classification and stabilization of shifting cultivation. During 2000-2005, over 1.09 million ha of arable land and 3.6 million ha of forested land were allocated to 7,125 villages, about 419,250 households, resulting in declination of shifting cultivators (CPI, 2006b). Although the government has been successful in decreasing number of families practicing swidden agriculture, the stabilization of shifting cultivation combined with the land allocation process has led to increased problems in many upland areas. It was criticized that the program was too prescriptive, not participatory enough, implemented by untrained staffs, and seldom monitored and evaluated (Alton and Rattanaavong, 2004). In Participatory Poverty Assessment II in 2006, it

reported that poor implementation of the Land Forest Allocation policy was the main reason for their impoverishment (Chamberlain, 2007). In general, the land and forest allocation process was successful in the delineation of village boundaries and resource use zones, but it has also led to a reduction in land available and natural resources to upland ethnic groups in particular. It was indicated that the ratio between protected forest and village production forest was unrealistic and that households often have gradually lost their access to forests. Even though this program has been carried out in approximately half of the country's villages so far, some researches implied that the implementations could not continue successfully due to the lack of funds discouraging district officers from continuing to promote services and follow-up activities (Pettersson, 2007; Phanvilay, 2010).

Focal site strategy and village relocation and consolidation

The focal site strategy has been a central feature of rural development strategies for many years. In principle, the approach places a high priority on improved services, more sustainable land use, and increased incomes among the rural poor (NGPES, 2004b). The village relocation and consolidation aims at facilitating the delivery of the government services and basic infrastructures. The most remote villages will be moved to another villages which has more opportunities to access social services such as, roads, market, education, health care, and etc. However, the excessive and quick implementation of the Land and Forest Allocation Program (LFAP) seems to have made it more problematic to the village relocation.

Land use conflicts, social and livelihood problems also have arisen when the relocation of people from more isolated highland villages are merged in lower-lying villages. A research in the upland of Northern provinces indicated that the established rotational land cycle by original families was decreased because new settlers had acquired numerous parcels, in together quality agricultural land was less which forces people to choose less fertile land to do farming. In addition, some of the recent arrivals did not have parcels of land because they have not been able to claim land in their new locations. Other difficulties facing new settled people, they were further far away from farming lands, and vacated their houses in old villages, abandoning the permanent water supply at the old site for an incomplete supply at the new site (Jones et al., 2004). Additionally, relocated people did not have sufficient time to acquire a good knowledge of their new environment. This has increased pressure upon natural resources (Moizo, 2004). Another research also showed that population moved down from the uplands to the plains experienced greater difficulties during resettlement in their new habitats because of higher prevalence of malaria and water born diseases, resulting in the doubling of mortality rates among the resettled population (Romagny, 2004). Another case in Luang Prabang district shows that the LFAP implementation forced the highland people to move to the lowland notwithstanding their inexperience of sedentary farming. The problem was these highland people had engaged in swidden agriculture all their lives, so they did not have any idea on working in a lowland field. Together, capacity at local levels was not enough for managing effective relocation or for providing technical assistance to relocated villagers, which was

a main cause for further resettlement of villagers (Yokoyama, Tanaka, and Phalakhone, 2006).

Conclusions

With the highest concentration on the rural development for uplands, the shifting cultivation stabilization, opium eradication, land and forest allocation, and village relocation have been established and implemented. The impact of these programs has both positive and negative favors.

1. Through the stabilization of shifting cultivation, the number of families who engage in this system as well as the areas accounted has decreased year by year. This has become a good sign for the environmental conservation. Along with the introduction of diversifying farming, former shifting cultivators have gradually swift their single cropping to a more diversified farming.

2. The opium eradication work has been implemented quite successfully as the area under opium production was reduced. Yet it is need to closely check the remaining opium cultivation to prevent a potential return of opium poppy cultivation.

3. In the effort to reduce the areas of shifting cultivation with support of the land allocation program, several problems have been reported as the main cause of lessening in the availability of agricultural land and natural resources due to the poor implementation.

4. The impact of village relocation and consolidation appears more challenging. A number of land use conflicts, social and livelihood problems have occurred after the relocation of isolated highland people whose entire live employ swidden agriculture to lower-lying villages, where lowland field are

practiced instead. Hence, many highland families cannot adapt to new activities of the lowland where they have been settled to.

As many challenges and problems are still remaining, the rural development for upland people has to put more consideration on the differences of their customs, cultures, livelihoods in which the majority are ethnic minority. Each of ethnic group has a unique way of living. Thus, more researches and studies need to be conducted in order to look for better flexible strategies supporting diverse ethnic livelihoods.

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