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Livelihood of local people and dependence on forest resources – A case study in Son Lang commune located in Ha Nung State Forestry Company, Vietnam

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Introduction

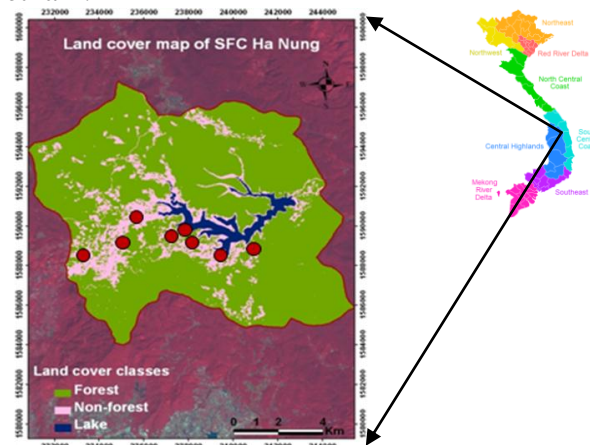
The local people in the State Forest Enterprises (SFEs) in Vietnam have been traditionally dependent on the forests for their livelihood and their living habits have become closely integrated with the forest (Nguyen, 2001). State Forest Enterprises (SFEs) are the main owners that manage production forests in Vietnam, whereas their operation areas are at the same time home to many local people (Le & Pretzsch, 2011, FPD, 2010). Since SFEs began to manage the forests for timber extraction in 1954, changes in forest policies have had an impact on the livelihood of the local people. As a result many conflicts emerged between the SFEs and local populations over their traditional rights of forest use and the laws of forest management and protection (Artemiev, 2003, EASRD, 2005, Le, 2011).

This research has the following scientific objectives:

- Understanding the land-use patterns and livelihood of local households,
- Determining the extent of dependence on forest resources by local households,
- Determining the level of cooperation between the SFC and the local people, and
- Identifying conflicts between Ha Nung SFC and local people.

Research Location

Data gathering and on-site research has been conducted in Son Lang commune, K'Bang district, Gia Lai province, Vietnam.



Map 1 Research Location

The local commune is surrounded by forests that are managed by the Ha Nung State Forestry Company (SFC, previously called as SFE). The local people living in the commune are from two main ethnical groups, Kinh and Bahna, with 968 households and 3,920 people. Kinh people (so-called Vietnamese people) are in-migrants to the area while Bahna people belong to the indigenous ethnic minority.

Ha Nung State Forestry Company (SFC) is managing 9,030.4 ha of forest for timber production, composed of 6,320.8 ha natural production forest, 152.7 ha plantation, 2,555.4 ha protection forest and 1.5 ha classified as other land. Ha Nung SFC has 23 staff and workers, many activities are carried out by contractors.

Material and Methods

A household survey was conducted in eight villages (3 villages of Kinh and 5 villages of Bahna) in Son Lang commune, K'Bang district, Gia Lai province. Eighty households were selected by systematic sampling for survey and interview. Data gathered was analyzed using SPSS software.

Results and Discussion

Profile of respondents:

Main characteristics of household survey are shown in the table below.

Description on average	Kinh (n=39)	Bahna (n=41)
Age of respondent	42,6	42,7
Gender (Man and Woman Ratio)	2,5	2,4
Ethnic group of respondent	39	41
Size of household	3,9	4,5
Household labor supply	2,0	2,3
Total income 2010 (USD/year)	5.222,0	1.927,8
Total expenditure 2010 (USD/year)	4.378,0	1.752,5
Total owned land (ha)	1,5590	1,0210

Table 1 Main characteristics of household survey

Income vs. Expenditure, Income Proportion:

Table 1 and 2 show that the total annual income of Kinh people equals 5,222.0 USD while the corresponding income of Bahna people is only 1.927,8 USD meaning that Kinh's income is approximately 2.7 times higher than its equivalent in Bahna. Kinh has also higher expenditure in comparison with Bahna. The income figure shows that in Son Lang commune, there are only about 9% of people classified as poor (7/80), 7% marginally poor (6/80), while 84% of households (67/80) are not considered as poor.¹

Table 3 reflects income proportion according to the different generating sources such as coffee, forest, agriculture, livestock and others. The figure shows that Kinh people have income from coffee which accounts for about 66% of the total income, while Bahna people have most of their income from the forest accounting for 44%. It means that Kinh is more dependent on coffee and

¹ According to Vietnam's new household classification: poor household has income lower than 20USD, marginally poor household has over 20USD to 26USD, and no poor household has higher than 26USD (Decision No. 09/2011/QĐ-TTg)

Bahna is more dependent on the forest resources. Other sources as agriculture and animal husbandry represent minor sources of income for both groups.

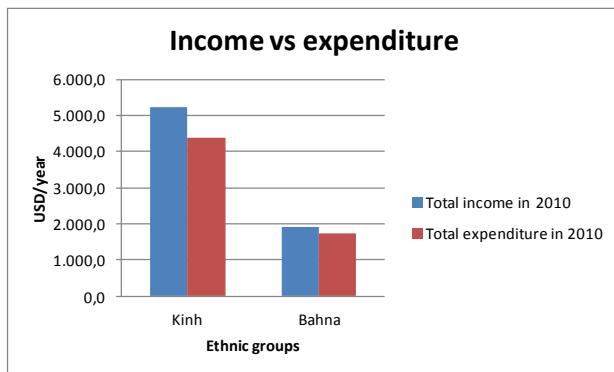


Table 2 Income vs. Expenditure

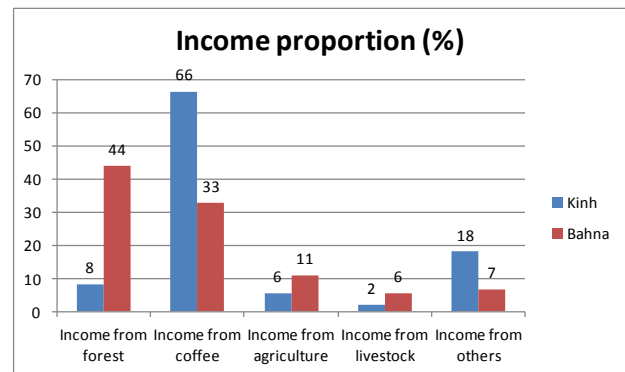


Table 3 Income proportion (%)

Conflicts and cooperation between the local people and Ha Nung SFC:

Table 4 shows that 38% households (30/80) used to have conflict with the SFC. It also shows that Bahna people have significantly more conflicts with the SFC compared to Kinh people. In terms of cooperation, table 5 shows that 39% households of Bahna entered protection contracts with SFC. The households’ survey also shows that the local people have not participated in SFC’s planning.

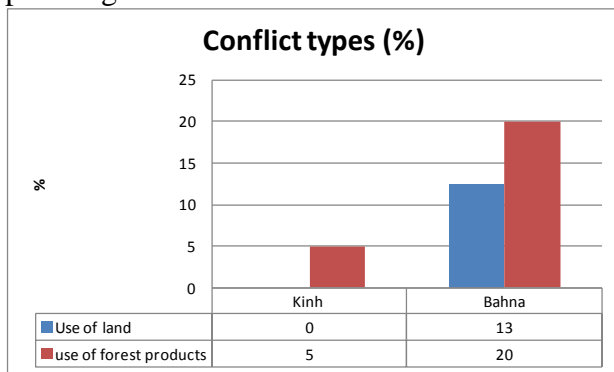


Table 4 Conflicts

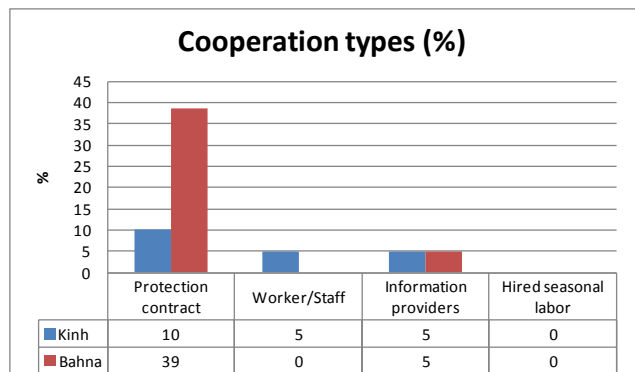


Table 5 Cooperation

Multiple Regression:

Further analysis used multiple regression with income from forest as the dependent variable and independent variables as shown in the table below. This helps to explain the correlation between dependent and independent variables.

$R^2 = 0.477$

Explanatory Variables	Coefficients Beta	t	p-value
Constant		1.322	.190
Gender of respondent	.104	1.102	.274
Ethnic group of respondent	.027	.159	.874
Household labor supply	.100	1.015	.314
Education of household's head	.212	1.713	.091
Farmer	.045	.429	.670
Income from coffee	-.741	-3.813	.000**
Income from agriculture	-.163	-1.635	.107
Income from husbandry	-.182	-2.030	.046*

Income from others	-.292	-2.607	.011*
Total land (ha)	.307	1.988	.051

* Significant at $\alpha=0.05$ level, ** Significant at $\alpha=0.01$ level

Table 6 Result of regression

Table 6 shows the great positive significant correlation between income from forest and income from coffee ($P= 0.000 < 0.01$). Other significant positive correlations are between income from forest in comparison with income from others and income from husbandry ($P < 0.05$). Significant correlation between two groups Kinh and Bahna regarding income from forest ($P= 0.04 < 0.05$) is also recorded when running Oneway ANOVA.

Conclusions and Implications

Conclusions:

- Local households have good income in comparison with national standard (only 9% classified as poor households).
- Strong dependence on forest resources of ethnic minority (Bahna). High negative impact to the forest.
- Households with high income from coffee are less dependent on forest resources
- Frequent conflicts over land and forest uses between the local people (especially, Bahna people) and Ha Nung SFC.

Implications:

- Improve extension techniques for Bahna people to maximize their productions on owned land, especially for coffee production. Good farming of Kinh can be demonstrated.
- Benefit sharing mechanisms between SFC and local people are needed.
- SFC needs to include local people in planning and operations.
- Clear land demarcation to solve land use conflict.

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