MEASURES TO COPE WITH FOOD SHORTAGE IN THAI AND KHMU COMMUNITIES IN THE UPLAND OF NGHE AN PROVINCE, VIETNAM

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1. Introduction

Food shortage is a multidimensional issue, of which the economic dimension has been traditionally considered paramount. In a broad sense, food shortage is both caused by and affected by socio-economic factors, such as human resources, health care, institutions, and culture. With generous support from The Rockefeller Foundation, a research project entitled: "*Coping Mechanisms of the Ethnic Minorities in Upland Areas of Vietnam and the Lao-PDR as Responses to the Food Shortage: Strengthening Capacity and Collaboration in Studying between the Institute of Anthropology (Vietnam) and the Institute for Cultural Research (Lao-PDR)*" has been implemented since September, 2005. This is a cross-country and multidisciplinary study. In Vietnam, the study looks at food shortage in two Thai and Khmu ethnic communities in Nghe An province. The objective of the study is to contribute to the achievement of sustainable food security by poor upland people, and to the improvement of their quality of life in the long run (Institute of Anthropology, 2005).

This report is an integral part of the above mentioned project. The report looks at food shortage faced by local people from an economic angle, focusing on three questions: 1) Who are those that suffer from food shortage, and how serious is it? 2) What economic factors (e.g. human assets, financial assets, and natural assets) are related to their food shortage? 3) What economic measures are available and required to help lift the people out of food shortage?

2. Research Methodology

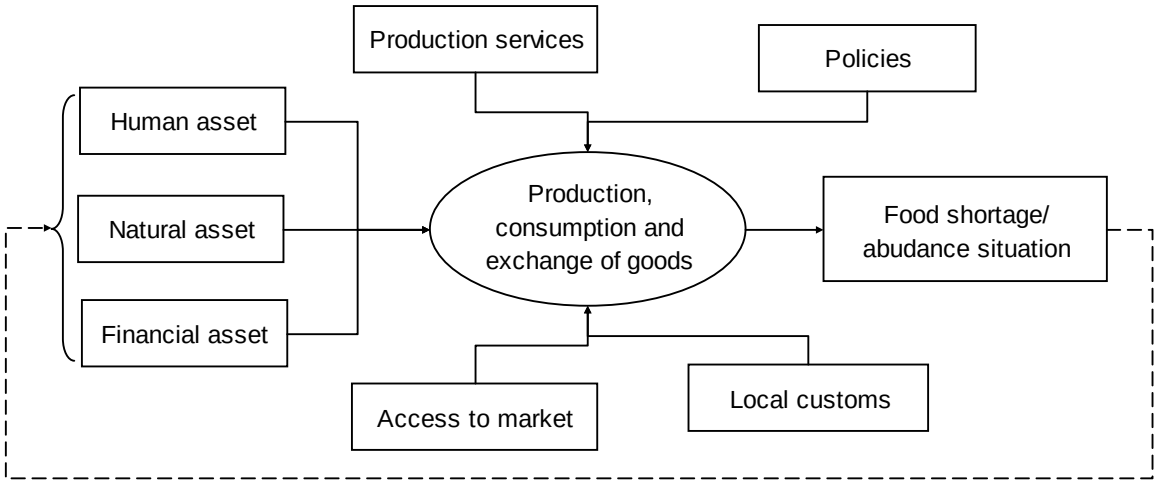
According to classification by the General Statistics Office (GSO), food-poor or hungry households refer to those that suffer from a shortage of food for a certain number of months in a year, and who have to borrow food or money to meet their demands, but do not have the ability to repay the loans. From 2000-2004, the food poverty line for rural areas was 112 thousand Vietnamese Dong (VND)[1] per capita per month. Since 2004 to date, a new poverty line has been introduced, redefining food poverty as having a monthly per capita income of below 124 thousand VND for rural areas.

This paper examines the food shortage problem of the studied households from an economic perspective, using a combination of qualitative and quantitative approaches. The principle assumption is that a household's food shortage or food abundance situation is an outcome of production activities (both

[1] 1US$ ≈ 16,000 VND.

farming and non-farming), consumption and exchange of products and resources (including labor) (see Figure 1). These activities are often influenced by factors under the control of the households (e.g., human assets, natural assets, and financial assets) as well as external factors (e.g., access to markets, production services, state policies, and local customs).[1] The state of food shortage or food abundance in the current period has effects on household assets in the next period.

Figure 1: The research framework



Data for analysis came from the survey conducted from January - February 2007 in Pieng Pho Village of Pha Danh Commune and Binh Son 1 Village of Ta Ca Commune. Both villages are located in the upland area of Ky Son District, Nghe An Province. Qualitative data were collected through focused group discussions (with two different well-being groups), interviews of key informants, and field observations. Quantitative data were collected through a census of 98 households living in the two studied villages (34 households in Pieng Pho Village and 64 households in Binh Son 1 Village). In addition, secondary data from local sources as well as documents, reports and statistics from national sources were also used for this report.

3. Overview of the Food Shortage Situation in the Study Region

Nghe An province is located in the North Central Region of Vietnam.[2] As of 2004, food poverty rate in Nghe An was 13.4%, the 13th highest nationwide and 3rd highest throughout the region. From 1998 to the present, food poverty rate in Nghe An has always been higher than the national average and the North Central Region.

The food-poor population had an average per capita income of no more than 25.6% the average income in rural areas, and 33.6% the average income in urban areas in

[1] This report will not elaborate the relationship between local customs and food shortage as it is discussed in the report by anthropologist consultants.

[2] Which includes Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri và Thua Thien Hue Provinces.

2004 (see Table 1). In 2002, respective figures were 31.5% of average income in rural areas and 41% in urban areas. In the North Central Region,[1] the average per capita income of the food-poor population was no more than 39.1% of the average income in rural areas and 51.4% of the average income in urban areas in 2004; and no more than 47.58% in rural areas and 62% in urban areas in 2002.

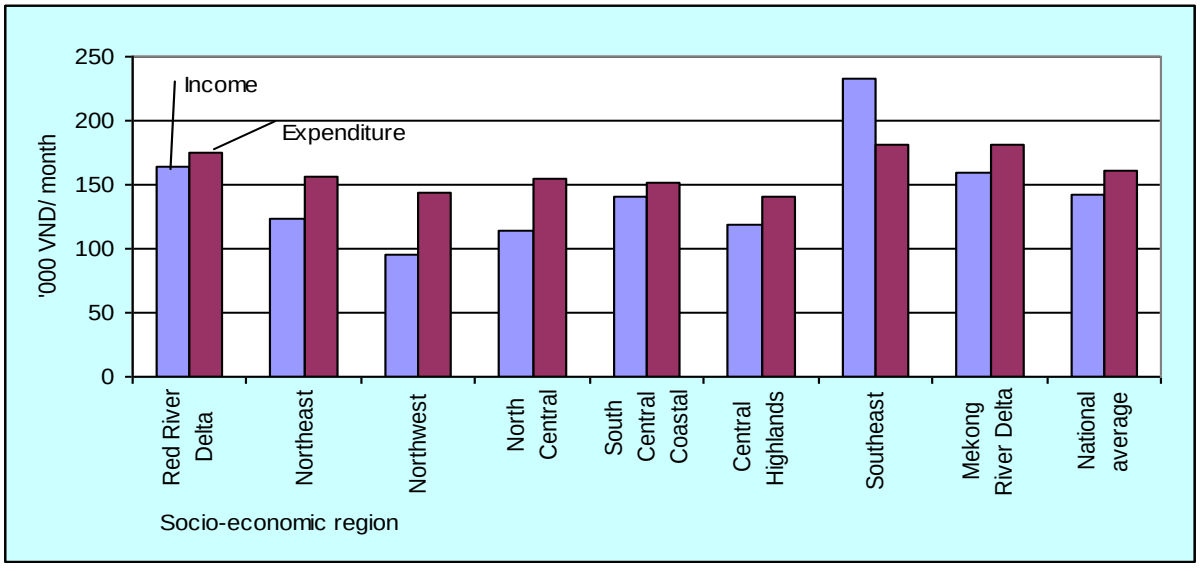
Table 1: Average per capita income and expenditure in current price

	2004		2002	
	Income	Expenditure	Income	Expenditure
North Central Region	317.1	252.7	235.4	192.8
Whole country	484.4	359.7	356.1	269.1

Measuring unit: thousand VND/person/month.
Source: GSO (2004; 2006).

Households in the lowest income group[2] generally spend more than what they earn. At the national level, expenditures of the lowest income group are 13.2% higher than their average income (see Figure 2).

Figure 2: Income and expenditure of the lowest income group, by region



Source: GSO (2004).

[1] As data for Nghe An province is not available, data for North Central Region is used in this discussion.
[2] Due to unavailability of data for the food poverty group, this discussion is based on the lowest income group (out of five groups) under the 2004 Vietnam Household Living Standard Survey. In the three study regions, per capita incomes of the lowest income groups are all under the food poverty line.

The North Central Region ranks second of the eight economic ecological regions, with 34.6% of the lowest income households overspending (only second to the Northwest, where spending of the lowest income group is about 51.6% higher than their income).

According to the 2004 Household Living Standard Survey (HLSS), most of the expenditures of the lowest income households were devoted to food. On average, around 66.5% of the expenditures of this group are for food consumption (compared to 53.5% national average). This spending accounts for 75.2% of the average income of this group (GSO, 2004).

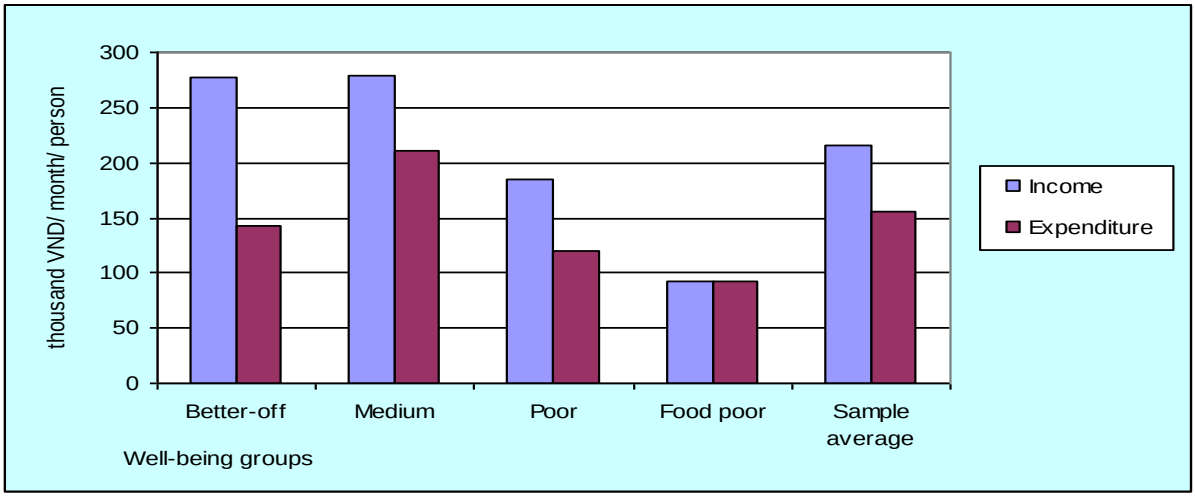
4. Main Findings of the Study

4.1. Food Poverty and Shortage in the Study Villages

In the study villages, poor and food-poor (hungry) households constitute a major part of the local population. Of the total 98 surveyed households, 13 (13.13% of the sample size) are food-poor and 41 households (41.41%) are poor. These rates vary significantly across sites. In Pieng Pho Village, 6% of the surveyed households are food-poor and 26% are poor. In Binh Son 1, the corresponding figures are 17% and 50%, respectively.

In terms of income, total cash-equivalent income of the two villages in 2006 was estimated at 1.6 billion VND, corresponding to a per capita income of 2.58 million VND per year or 215,000 VND per month. Distribution of such income, however, was not even (see Figure 3). Over 60% of the aggregated income belonged to the 46% of the population from better-off and middle class socioeconomic groups. Around 54% of the population, those from poor and food-poor groups earned less than 40% of the total income. Similarly, expenditures of medium and better-off households were over 60% the aggregated expenditures of the two villages in 2006. Total spending of poor and food-poor households only accounted for less than 40% of the aggregated expenditures. For food-poor households, expenditures were equal to their incomes. For households from other socioeconomic groups, expenditures were around 51-76% of their incomes. A major part of total expenditures of the food-poor households' was dedicated to food. In Pieng Pho Village, food-poor households spent over 85% of their total expenditures on food. The respective figure in Binh Son 1 was 78%. By contrast, spending on education of these households accounted for only 3% of their total expenditures (in both villages), no more than the costs they spent on rituals. Taxes and fees accounted for around 2% of food-poor households' expenditures.

Figure 3: Per capita income and expenditure of 2006 in the study villages



Source: Household census.

Food shortage is relatively common in the study villages. Around 67 of the 98 surveyed households (68% of the sample size) suffered from food shortage for at least one month in 2006 (Table 2). The situation varied across sites. In Binh Son 1 village, around 92% of the population, including households in the better-off group, ran into food shortage problems, while only 24% of the inhabitants in Pieng Pho encountered this situation. In general, food shortage in both villages has a statistically significant relationship with household socioeconomic class: households of higher socioeconomic classes were less likely to face food shortage problems.[1]

The duration of food shortage that local households faced was between one and eight months. Most people (60%) who had food shortage in 2006 faced this problem for duration of 1-3 months. Around 33% had food shortage for 4-6 months, 3% for 7-8 months and the remaining 4% for over eight months. In general, villagers in Pieng Pho who had a food shortage problem in 2006 did not have it for more than six months, while some people in Binh Son 1 had the problem for even more than eight months.

Table 2: Food shortage situation in study villages in 2006

Socio-economic groups	Pieng Pho	Binh Son 1	Total sample
Food sufficiency	*26 (76%)*	*5 (8%)*	*31 (32%)*
▪ Better-off	2 (6%)	0 (0%)	2 (2%)
▪ Medium	19 (56%)	3 (5%)	22 (22%)
▪ Poor	5 (15%)	2 (3%)	7 (7%)
▪ Food-poor	0 (0%)	0 (0%)	0 (0%)
Food insufficiency	*8 (24%)*	*59 (92%)*	*67 (68%)*
▪ Better-off	0 (0%)	2 (3%)	2 (2%)
Socio-economic groups	Pieng Pho	Binh Son 1	Total sample
Food sufficiency	*26 (76%)*	*5 (8%)*	*31 (32%)*
▪ Better-off	2 (6%)	0 (0%)	2 (2%)
▪ Medium	19 (56%)	3 (5%)	22 (22%)

Source: Household census.

Note: Number in parentheses refer to the percentage over number of surveyed households.

[1] The correlation coefficient between household socioeconomic class and likelihood to face food shortage is 0.4314 ($p<0.0001$) and between household socioeconomic class and duration of food shortage is 0.5151 ($p<0.0001$).

In the production of the staple food crop (rice), there is significant variation across socioeconomic groups. Per capita rice production of food-poor households was

only 73% of the average production for the sample (Table 3). Interestingly, while food shortage was common in Binh Son 1, rice production outputs in this village in general and of the village's food-poor households in particular, were higher than the corresponding figures in Pieng Pho village. Correlation analysis showed that household food production was statistically significant with respect to the duration of food shortage faced by local people, but not with the likelihood of people to face food shortage.[1]

Table 3: Per capita rice production in study villages in 2006

Socio-economic groups	Pieng Pho	Binh Son 1	Total sample
Better-off	225	177	189
Medium	177	238	210
Poor	211	206	207
Food-poor	140	145	145
Total sample	186	203	198

Unit: kg/person/year.
Source: Household census.

4.2. Economic Factors and the Food Shortage Situation in the Study Villages

The previous section has provided a description of the food shortage situation in the two study sites. This section will analyze the links between certain economic factors and the food shortage situation as discussed above.

4.2.1. Natural Assets

In general, local households have a limited area of agricultural land for production (Table 4). Only two out of 98 households in the two villages have paddy land. Most people (93 households or 95% of the sample size) farm on upland fields. Poor and food-poor households are more likely to use upland (for rice cultivation) than households of other socioeconomic groups. However, the difference is not statistically significant.[2] Per capita areas of home garden and fishpond do not have a significant relationship with household well-being either. For both these types of land, households in the middle socio-economic group possess the largest area and poor and food-poor households have the least. However, better-off households also have very small area of home garden and fishpond.

In reality, outputs from cropping in the two study villages account for a modest share of the household income, only 31% total income per capita in both villages (22%

[1] The correlation coefficient between household rice production and likelihood to face food shortage is 0.0963 ($p<0.3613$), and with duration of food shortage is 0.2941 ($p<0.0157$).
[2] The correlation coefficient between socioeconomic class and per capita upland size is 0.0935 ($p<0.3726$).

in Pieng Pho and 40% in Binh Son 1). Local people, particularly poor and food-poor households must rely on the forest to meet other needs. In 2006, the average income that the survey households derived from the forest was higher than that received from cropping. For food-poor households, harvests from the forest made up over 40% of their total income.

Table 4: Per capita production land in study villages, by well-being class

Socioeconomic groups	Upland field	Home garden	Fishpond
Pieng Pho	854	31	19
▪ Better-off	138	13	9
▪ Medium	861	39	24
▪ Poor	917	16	9
▪ Food-poor	1,125	25	19
Binh Son 1	1,768	3.14	1.39
▪ Better-off	1,450	-	3.00
▪ Medium	1,947	5.91	3.70
▪ Poor	1,694	2.40	-
▪ Food-poor	1,745	1.23	0.44
Average	**1,505**	**11**	**7**

Unit: m^2/person.
Source: Household census.

4.2.2. Human Assets

In general, there is significant variation across socioeconomic groups in terms of household size (Table 5). However, there is no significant relationship between household size and socioeconomic class.[1] The number of laborers per household tends to decline with lower socioeconomic status. Correlation analysis confirms a statistical relationship between household labor force and socioeconomic class.[2] Similarly, the rate relationship with the household socioeconomic class. Food-poor households have the lowest number of laborers per capita, compared to other socioeconomic groups.[3]

Table 5: Comparison of human asset across socio-economic groups

Socio-economic groups	Household size	Number of laborers	Labors per capita	Household with position
Better-off	8.00	4.75	0.59	0.50
Medium	6.30	4.05	0.64	0.48
Poor	5.83	3.41	0.59	0.15
Food-poor	6.85	3.23	0.47	0.08
Total sample	6.24	3.70	0.59	0.29

Source: Household census.

[1] The correlation coefficient between household size and socioeconomic class is 0.0439 ($p<0.6677$).

[2] The correlation coefficient between number of laborers and socioeconomic class is 0.1993 ($p<0.0492$).

[3] The correlation coefficient between the rate of laborer per capita and socioeconomic class is 0.2231 ($p<0.0273$).

The education level of the household head has a relationship with household socioeconomic group. Analytical results show that heads of households in poor and food-poor groups have much lower education than the sample average, and those of the medium and better-off groups. Similarly, households with political position (mostly the head) are often in medium and better-off socioeconomic groups. It is very rare that households with political position fall into the poor or food-poor groups. Correlation analysis results confirm the statistical relationship between education level, household political position and socioeconomic class.[1] However, the age of the household head does not have statistical relationship with socioeconomic class.[2]

4.2.3. Financial Assets

A household's financial capability can make an important contribution to its food sufficiency situation, particularly when food production does not meet the food demands.

With regard to cash income, there was significant variation across socioeconomic groups in terms of absolute value and its share in total household income (see Table 6).

Table 6: Cash income per capita of 2006, by well-being groups

Socio-economic groups	Cropping	Husbandry	Off-farm	Total
Pieng Pho	***20***	***75,906***	***122,727***	***198,654***
▪ Better-off	-	64,896	452,292	517,188
▪ Medium	20	84,012	139,658	223,690
▪ Poor	26	68,275	24,612	92,914
▪ Food-poor	18	9,375	72,917	82,309
Binh Son 1	***3***	***15,286***	***17,837***	***33,126***
▪ Better-off	5	37,569	6,076	43,651
▪ Medium	4	16,151	43,244	59,399
▪ Poor	3	17,466	8,018	25,487
▪ Food-poor	1	1,965	2,737	4,703
Sample average	**8**	**32,719**	**48,001**	**80,728**

Unit: VND/person/month.

Source: Household census.

[1] The correlation coefficient between socioeconomic class and education of household head is 0.3966 ($p<0.0002$) and with political position of household head is 0.3267 ($p<0.0010$).

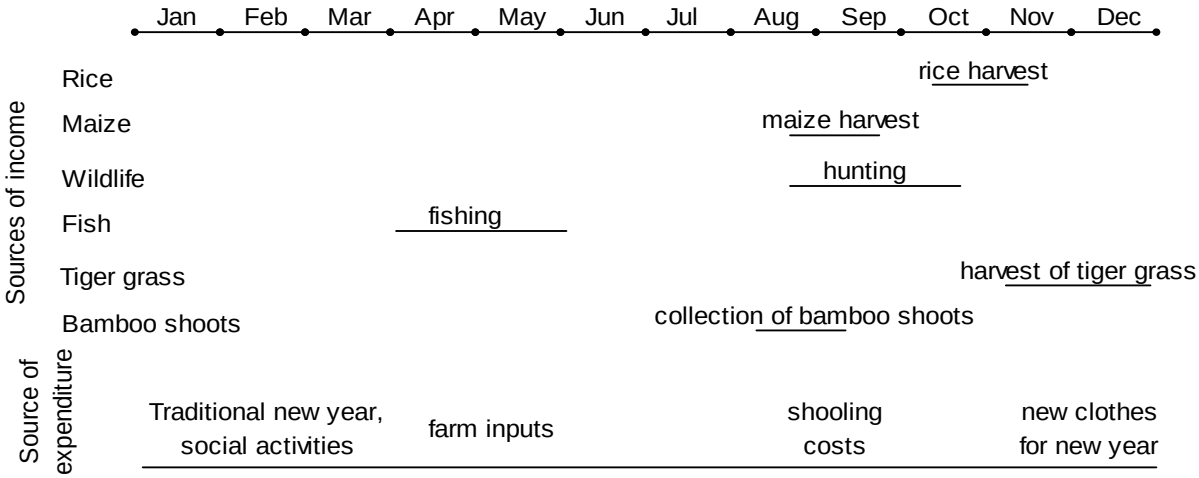
[2] The correlation coefficient between socioeconomic class and age of household head is 0.0339 ($p<0.7402$).

The average cash income per capita of the two villages in 2006 was 80,700 VND per month, making up 37.5% of the average total income. The cash income of better-off households in Pieng Pho made up over 75% of their total income, while in Binh Son 1 the corresponding figure was 30.5%. Similarly, the cash income of food-poor households in Pieng Pho was 30.5% of their total income in 2006, compared to only 6.2% of those in Binh Son 1. The amount of cash income of food-poor households was also much lower than those of other socioeconomic groups. In general, the cash income of food-poor households was as much as 14.5% of the sample average and 7.2% of that of better-off households.

Although the cash income of food-poor households in Pieng Pho was high, it remained relatively unstable. In 2006, around 88.5% of the cash income (27% of total income) of food-poor households came from off-farm activities. However, working as hired laborer was the only source of off-farm income that those households could generate compared to at least two different sources of cash income among households from other socioeconomic groups. In fact, food-poor households did not have access to stable monthly cash income sources, such as jobs in local state organizations, minor trading, or handicrafts, which somewhat influenced the financial stability of these households.

The timing of harvesting and spending plays an important role in the financial capability of local households, particularly those of poor and food-poor groups. For the surveyed households, particularly those without a stable monthly cash income (poor and food-poor households), their income is highly seasonable (see illustration in Figure 4). Harvesting times mostly happen at the end of the year while the need for household spending is throughout the year. In addition, major expenditures - including those for the traditional New Year, various rituals in Spring time, farm inputs, and education costs - rarely coincide with harvesting time.

Figure 4: Timing for major incomes and expenditures of a food-poor household



Source: Village survey in Binh Son 1.

Note: Regular expenditure (e.g. food and drink) is not listed.

In terms of access to official loans, 52 out of 98 surveyed households (53% of the sample) borrowed money from official sources (e.g. local banks or through development projects) in the years 2003-2006. By the end of 2006, the total lending to both villages was 356 billion VND (Table 7), or 6.8 million VND per borrower. However, variation existed between the two villages. While 79.4% of households in Pieng Pho borrowed money from official sources, only 39.1% of households in Binh Son 1 did so. Moreover, average borrowing per household in Pieng Pho was over 200% as much as that in Binh Son 1.

Households that did not borrow money quoted various reasons. Lack of collateral was mentioned by most people (24%). After that came the fear of not being able to repay the loan, current inability to pay current debt, and ineligibility for the loan. Some households also mentioned reasons like having no need for the loan, or still waiting for a turn to borrow.

Table 7: Borrowing from official sources between 2003- 2006, by socio-economic group

Socio-economic classes	Number of households (HH)†	Total borrowing ('000 VND)	Average ('000 VND/ HH)
Pieng Pho	*27 HHs (79.4%)*	*243,500*	*9,019*
▪ Better-off	2 HHs (100%)	22,000	11,000
▪ Medium	16 HHs (76.2%)	169,500	10,594
▪ Poor	7 HHs (77.8%)	41,000	5,857
▪ Food-poor	2 HHs (100%)	11,000	5,500
Binh Son 1	*25 HHs (39.1%)*	*112,500*	*4,500*
▪ Better-off	0 HHs (0%)	-	-
▪ Medium	9 HHs (47.4%)	42,500	4,722
▪ Poor	12 HHs (37.5%)	52,000	4,333
▪ Food-poor	4 HHs (36.4%)	18,000	4,500
Total/average	**52 HHs (53.1%)**	**356,000**	**6,846**

Source: Household census.

†: Number in parentheses refers to percentage of households borrowing money over the group total.

4.2.4. Access to Services and Support Projects

In terms of technical training, there were 68 out of 98 surveyed households (69% of the sample) that received training during 2003-2006 (Table 8). While there was no significant difference in the participation of households from different socioeconomic classes, variation existed between the two villages. Most people (94% of the households) in Pieng Pho were involved in at least one training event during this period,

while the rate of participation in Binh Son 1 was only 56%.

However, of those who participated in training events so far, only 38% thought these trainings were useful for them. Around 21% found the trainings of little use; 15% thought the trainings were not useful at all; and 26% never tried to apply what they learned from the trainings. For those who did not participate in trainings, the main reasons were lack of information about the training (mentioned by 47% of the households who did not participate in training), the difficult language used in the training (18%), and long distances to training places (18%). For some other people, the reasons were that there were no people available to attend training or their ineligibility for the training.

In terms of access to external supports from development projects or programs, there was the presence of state funded development programs (Programs 134 and 135, which primarily targeted the poor and food-poor) in both villages. Besides infrastructure works like power grids, irrigation systems, and village health posts, there was also support from these government programs to individual households (Table 8). In 2006, 92 out of 98 households in the two villages (94% of the sample) received support in terms of credit, food, (subsidized) seedlings or seeds, materials for house construction, home materials, and other consumer products. However, not only the poor and food-poor households were eligible for such support. In reality, all households that are classified as better-off in both villages received such support, while not all the poor and food-poor households were able to do so.

Last but not least, all surveyed households generally assessed that improvement of local infrastructure over the last several years has contributed to improved access to the local market. At present, most of the farm products are sold at the farm gate (in the village).

Table 8: Access to training and external supports, by socioeconomic groups

Socioeconomic classes	Training (2003-2006)	External support (2006)
Pieng Pho	32 (94%)	32 (94%)
▪ Better-off	2 (100%)	2 (100%)
▪ Medium	20 (95%)	20 (95%)
▪ Poor	8 (89%)	8 (89%)
▪ Food-poor	2 (100%)	2 (100%)
Binh Son 1	36 (56%)	60 (94%)
▪ Better-off	1 (50%)	2 (100%)
▪ Medium	10 (53%)	16 (84%)
▪ Poor	20 (63%)	32 (100%)
▪ Food-poor	5 (45%)	10 (91%)
Total/average	68 (69%)	92 (94%)

Source: Household census.

Note: Number in parentheses refers to the percentage of households having participated in training or received external supports over the group total.

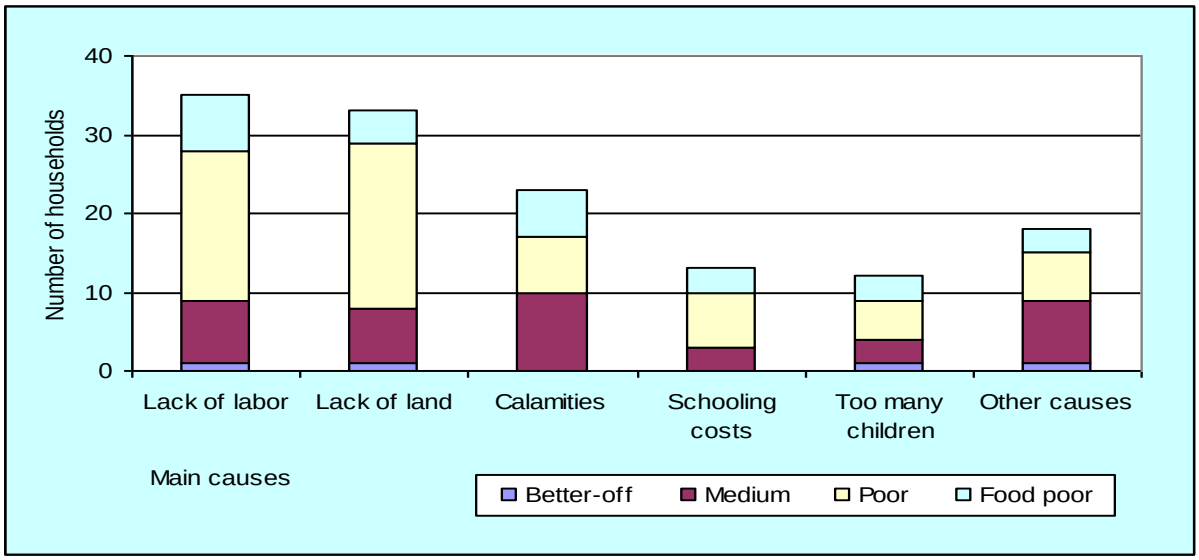
4.3. Economic Measures to Deal with Food Shortage

4.3.1. Main Causes of Food Shortage in the Study Households

According to the assessment of the local people, there were five major types of causes of food shortage in 2006. They were lack of labor, lack of land, (natural) calamities, schooling costs, and too many children (Figure 5). All other causes, which included lack of off-farm jobs, lack of capital, and lack of new seed varieties, are grouped into the others. In this section, the discussion will focus on three major causes: land, labor and (natural) calamities.

Lack of labor was regarded as a main cause of food shortage by most households. Census results indicated that 35 out of 67 households (52%) who ran into a food shortage problem in 2006 mentioned this cause. In fact, average labor size of these households was 3.37 laborers per household and the rate of laborers per capita was at 0.53, relatively less than the sample average of 3.7 and 0.59 (respectively – see also section 4.2).

Figure 5: Main causes of food shortage



Source: Household census.

Note: There may be more than one cause of food shortage for each household.

Land was the second most common cause after labor. Of the 67 households with a food shortage problem in 2006, 33 (49%) thought their food insufficiency was related to their amount of production land. In reality, however, the per capita land size of these households was 1,607m^2 of upland field, 6m2 of home garden and 8m^2 of fishpond. Except for home gardens, the land holdings of these households were even higher than the sample average (see Table 4). Consequently, their land problem was more about the quality of the land (suitability of the land to the current crops) than about the quantity.

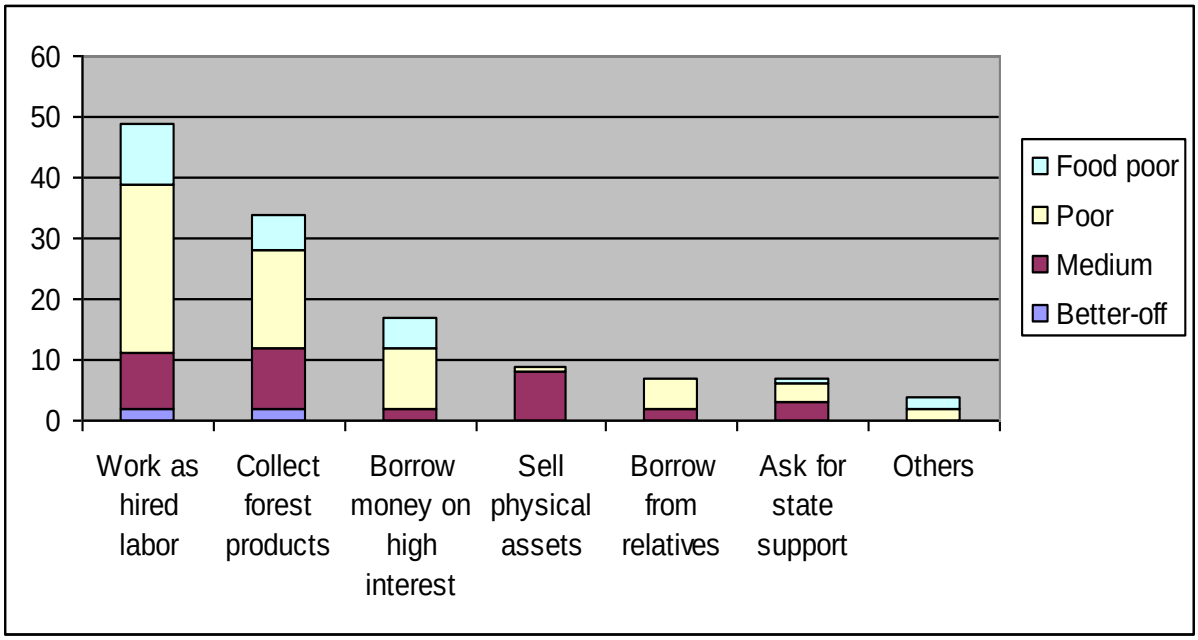
The third most common cause was natural calamities. Twenty-three households

(34%) considered this as a major reason for their food shortage in 2006. Such calamities as disease (for livestock), pests (for crops), and bad weather (flood and drought) were most often mentioned.

4.3.2. Measures to Deal with Food Shortage

To deal with a food shortage problem, people in the study villages have applied various measures, including working as hired laborers, exploiting forest products, borrowing money with a high interest rate, selling household physical assets (including animals), and other measures (Figure 6). For many households, working as hired laborers in return for cash or food in the case of need was the most common tactics to deal with a food shortage. Of the 67 households with a food problem in 2006, 49 (73%) applied this measure. In addition, 35.5% of households who did not have a problem with food shortage in 2006 also thought they would have done the same.

Figure 6: Measures to cope with food shortage



Source: Household census.

Note: Each household may employ more than one measure to cope with food shortage.

Collecting forest products was also considered by local people to be an important measure to cope with food shortage. Thirty-four out of the 67 households (51%) with a food problem in 2006 applied this measure. In addition, 32% of households who did not have a food shortage in 2006 also thought they would have relied on the forest to overcome this problem. Products collected from the forest were used for two purposes: for home consumption and for sale (in the market) for money to buy food. Ms. Lo Thu Loan in Pieng Pho Village is an example. In 2006, crop failure (due to drought) led to four months of food shortage in her household. To meet her family's food demands, she had to collect banana flowers and leaves from

the forest and sell them in the district market. The money was used to purchase rice for the whole family. On average, she was able to earn 20,000 VND per visit to the forest (and market).

Borrowing money to buy food in the case of a shortage was also mentioned by local people. Fortunate households may be able to borrow from their relatives. These were households with infrequent food shortage problems. Many others had to borrow money at a high interest rate in order to have cash for food. This measure is highly temporary as households with chronic food problems (mostly the food-poor) who had to borrow money at high interest would end up spending most of their crop harvest to pay back the loan and the interest. As a consequence, the vicious cycle begins again in the next period.

In addition, some households sold their assets (including cattle, buffalo and pigs) to meet food demands in the case of a shortage. However, this measure is not applicable to the food-poor as they are often the ones without any valuable assets.

Besides immediate measures, local households also applied long term measures. Two important ones were to borrow money from official sources to invest in farm production, and to clear more land for cropping.

It is important to note the mutual support from within the community to the households suffering from food shortage. In both villages, the community plays an active role in helping its members in case of need. In Binh Son 1, for example, local people contributed rice to help those with food problems. Friends and relatives are also willing to help in case of need.

5. Summary and Recommendations

This report discussed food shortage in two villages in Ky Son District of Nghe An Province of Vietnam, focusing on the economic factors influencing this problem. The discussion indicated that food shortage was related to position and education level of household head, number of laborers and rate of laborer per capita, household cash income and its stability, and the difference in timing of harvesting and expenditures. The report also showed that food shortage in the study villages was not related to the size of upland fields, fishponds, home gardens, or the age of the household head. More importantly, many households are still relying on the forest for their daily needs. In addition, development projects (including Programs 134 and 135) still lack focus on the poor and food-poor.

The following recommendations are given to address the food shortage problems. It is important to note that these recommendations are complementary, and efforts to eradicate hunger can only be satisfactorily achieved when important measures are undertaken simultaneously:

- Introduce shorter duration and high yield rice varieties: Cultivation of short duration varieties will help reduce the amount of time waiting for the harvest and thus increase the land utilization index. This will particularly be relevant for households with chronic food shortage problems.

- Reduce household spending on social relations: Households with (chronic) food shortage problems may consider reducing their expenditures for social rituals and related activities. For this recommendation to be undertaken, it is important that it be integrated into local campaigns against wasteful rituals and ceremonies.

- Reduce or abolish fees or taxes for disadvantaged households: Reductions are necessary to make spending less than the daily costs for food (except rice). Also, payment of fees and taxes can be burdensome for disadvantaged households. It is recommended that local authorities consider reducing or abolishing fees and taxes for these type of households.

- Provide a rotational fund in parallel with technical training and fund management assistance: While many households are in need of capital for investment in farm production, they do not borrow money from official sources due to their risk-adverse feeling. Provision of a rotational fund to needy households may help improve their financial capability. To reduce the risk associated with the loan, it is important to provide trainings in necessary technologies and fund management.

- Introduce income generation activities: During the off-season period, efficient use of (redundant) labor can make important contributions to achieving food sufficiency. It is recommended that income generation activities be introduced to help local farmers increase their income during the off season periods.

- Improve access to (social) services: Lack of necessary services at the time of need is one of the reasons contributing to the risks associated with farm production. To help farmers alleviate these risks, it is important that farmers have access to necessary services, such as seed and farm input supplies, veterinary services, market information, and prices.

- Expand paddy fields: While commodity production and markets are still developing, food production to meet household self-sufficiency demand is very important for households with (frequent) food insecurity problems. Conversion of existing upland fields to paddy land as well as conversion of one-crop paddy fields to two-crop fields could be useful to deal with the food shortage problem. It is, however, noted that realization of such plan largely depends on the local ability to improve the irrigation systems.

- Allocation of the forest to local households along with detailed benefit sharing arrangements: While the forest still plays a very important role for local households, particularly the poor and food-poor, it is important that local people have legal claim over the local forest. Allocation of forest land to the local people along with clear benefit sharing arrangements will help stabilize the income from the forest for forest-dependent people.

- Put poor and food-poor people at the center of support programs: It is necessary that poverty alleviation projects and programs place poor and food-poor households at the center of their support.

This will help improve the focus on poverty alleviation. For this idea to be realized, it is important that appropriate approaches be used to involve the poor and food-poor actively in project and program activities, and assure they benefit from these activities.

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Feeding a herd of cows on salt to prevent them from influenza (Pha Danh Commune, Ky Son District, Nghe An Province).

Photo: Tran Hong Hanh