An Analysis of the Food Security Situation in Lashio Area, Myanmar

Vulnerability, Analysis & Mapping (VAM) Unit, May 2011

ACKNOWLEDGEMENTS

This report is the outcome of a collaborative process of many individuals and organizations.

Contents

1. Key messages

Overall Food security: the food security situation in Lashio area has generally improved in 2011 compared to 2010, with households facing severe food insecurity decreasing from 26 % to 18%. However, despite the improvement, food insecurity still remains mainly in **Man Tone, Lashio, Kutkai, Tan Yan and Theinni Townships**.

The vulnerable populations include households relying on casual labor, small trade, wood and bamboo cutting, remittance, marginal income sources, landless, subsistence farmers and those on food assistance. Households - who are female headed, have small sized families with low income earning adults or having more non productive dependents - are more likely to be food insecure.

The improved food security seems to be attributed to better food access this year compared to 2010, as households with poor food access declined from 10% to 21% in 2011. Food consumption, measured through the Food Consumption Score, has not improved significantly since 18% of the households have poor consumption in 2011 compared to 21% in 2010, with a small proportion attaining acceptable food consumption compared to last year.

Main underlying factors contributing to food insecurity are: i) access and size of land; ii) number of crops cultivated, with those with three or more crops tending to be food secure; and iii) assets owned by households.

Indebtedness has increased in 2011 compared to 2010, with 71 percent of the households currently owing debts, compared to 66% of the households last year, with the main reason being to purchase food. Food secure households mainly took credit to meet food needs, as well as for agricultural investments and social events.

Factors, such as **low job opportunities and high health expenses and burdens of debt payments,** regularly lead to transitory food insecurity further limiting purchasing power for many households. The inability to afford basic agricultural inputs and labour, as well as loss of crops to pests remains the same problems mentioned this year, as in 2010.

2. Background

Lashio area is located in the northern part of Shan State bordering China, and is comprised of 9 townships (of the 23 townships in the state (Map 1)). Lashio area is situated on the trade route of Myanmar and China, where locally produced maize and some minerals are exported to Yunnan province in China. Commodities produced in other parts of Myanmar such as timber, fish, sea foods, pulses, rice, rubber, as well as many other non-food items pass through the area en route to China.

Rice and maize are the major cereals produced in Lashio during the monsoon rainfall season (May to September). The cereal production in the area, in 2008/09, was about 959,732 tones[1] of which 31% was maize.

Lashio area has 1.85 million inhabitants. The land area of the nine townships of Lashio is about half the size of North Shan state. However, crop outputs are not uniform in all nine townships as Nam Kham, Muse, Tan Yan, Theinni and Kun Long area, which are flat lands and close to Shwe Li river and its tributary the Than Lwin river, have better

Map :1 Lashio Area within Myanmar

production compared to the mountainous areas of Man Tone, Nam Tu, Kutkai and Lashio.

All nine townships received WFP's assistance in 2010 and 2011, including livelihood activities through food for work and food for training; take-home rations to children attending primary schools; wet feeding in early childhood development centres; and nutrition support to HIV/TB patients.

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[1] Source Crop and Food Supply Assessment Mission report 2008/9.

2.1 Objectives

This assessment, carried out in March 2011, is a follow-up to the food security assessment conducted in March 2010. The assessment had the following objectives:

– Analyse the current food insecurity in Lashio area;
– Understand the major drivers of food insecurity and vulnerability; and
– Provide recommendations to design appropriate responses to improve food security in the area.

2.2 Assessment methodology

The assessment was carried out by 30 trained enumerators who interviewed 500 households in 50 villages randomly selected. The list of villages was obtained from the WFP sub office. Ten households were selected using systematic random sample per village. The sample is not statistically representative at each township level, but provides an overview of the food security situation in the following townships: **Kun Long, Kutkai, Lashio, Man Tone, Muse, Nam Kham, Nam Tu, Tan Yan and Theinni.** The data collected is indicative of the townships. Within the 500 interviewed households, each township shared 10% of the sample equally except Kutkai, which covered 20% of the sampled households.

The assessment was led by WFP in close partnership with Asian Harm Reduction Network (AHRN), CARE International, Karuna Myanmar Social Services (KMSS), Network Activities Group (NAG) and Kachin Baptists Church (KBC).

Training and data collection took place from 28 February to 9 March 2011. The training covered food security concepts, the questionnaire, group work, role play and a feedback session. The enumerators then practiced on the questionnaire before field data collection.

3. Household food security status and trends

3.1 How many are food insecure

Achieving food security requires that the availability of food is sufficient, with households accessing food through own production, the market or other sources, and appropriate utilization to meet the specific individual dietary needs. Based on this analysis, the overall food security

Table 1. Summary of Food Security Levels 2011 and 2010		
Level	2010	2011
Severely food insecure	25.9%	17.6%
Moderately food insecure	26.1%	23.8%
Food secure	48.0%	58.6%

situation has improved in 2011 compared to 2010. At least **17% of the households are considered to be severely food insecure** in 2011 compared to 25.9% in 2010. An estimated **23.8% are moderately food insecure** compared to 26.1% in 2010, while **58.6% are food secure in 2011** compared to 48.1 % in 2010 (Table 1).

Fig. 1: Changes in sources of rice

Year	Own production	Purchase	Borrow or credit	Unreliable food source
2010	52.4	38.2	1.8	7.6
2011	48.6	44.8	1.6	5.0

Fig. 2: Changes in % food share

	2010	2011
Low (<50%)	44.6	51.0
Medium (50-<75%)	27.8	25.6
High (75%+)	27.6	23.4

The improvement in food security is a reduced stress on the usually reported major constraints face by households. Farm income has increased from 13% in 2010 to 22% this year, attributed to 55% of the households owning land sizes over 3 acres (which is considered above subsistence level in Table 3). The proportion of households accessing land increased from 93.4% in 2010 to 97.6% this year. The improved income has resulted in an increase in the purchasing power of households, although there has been a slight decrease in households relying on own production (Figure 1). Furthermore, between 2010 and 2011, there has been a decrease in the number of households spending more than 50% of their income on food (Figure 2). This could be an indication of better incomes and improved access to food.

3.2. Where are the food insecure

Despite an improvement in the overall food security situation, food insecurity still remains a concern in some of the townships (see Section 2). Households interviewed in Man Tone, Lashio, Kutkai, Tan Yan and Theinni Townships tend to be more food insecure compared to households residing in other Townships (Figure 3 and Map 3).

3.3 Food Consumption and Access

In this assessment, households' food security is analyzed through a combination of: i) household food consumption (frequency and dietary diversity based on 7-day recall, as a proxy indicator for current household food access), and ii) reliability of food sources, providing an outlook for the potential to sustain future food consumption levels (see Tables 2, 3 and 4).

Food Consumption
Based on the food consumption analyses (thresholds used were: poor food consumption-0 to 28; borderline-28.5 to 42; and acceptable food consumption->42), the food consumption has improved for those facing poor consumption decreasing to **18% compared to 21% in 2010. However, borderline consumption has increased to 37%, whilst 45% have acceptable food consumption** (Figure 4).

Figure 4: Food Consumption Comparison
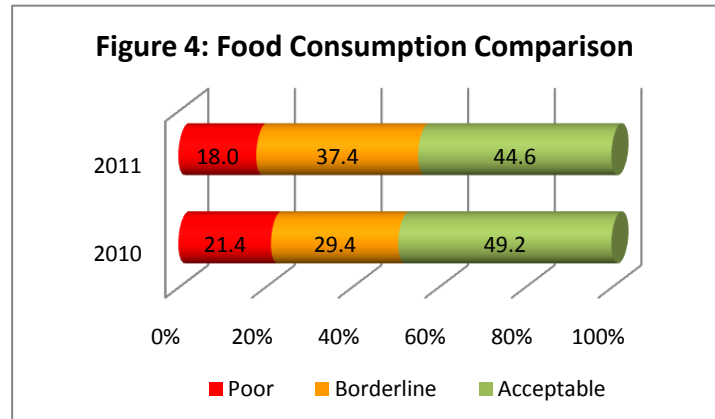
Households with poor consumption have a diet characterized by rice every day, eat vegetables six times a week, and five days of oils and fats. Households with borderline diet have slightly better consumption of food rich in proteins, eat rice every day, and consume vegetables and fruit more regularly.

Fig 3: % food insecure households by township

Map 3: Proportion of Households with Severe and Moderate Levels of Food Insecurity
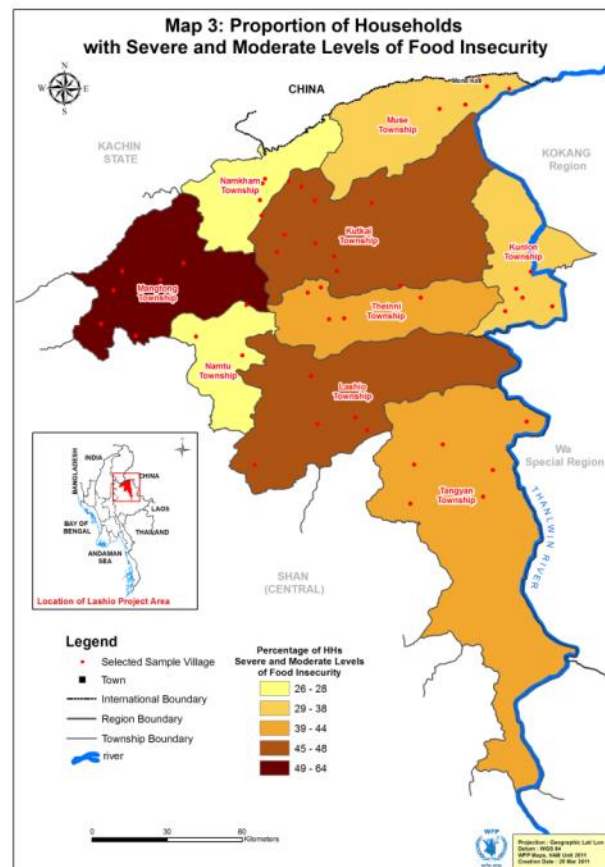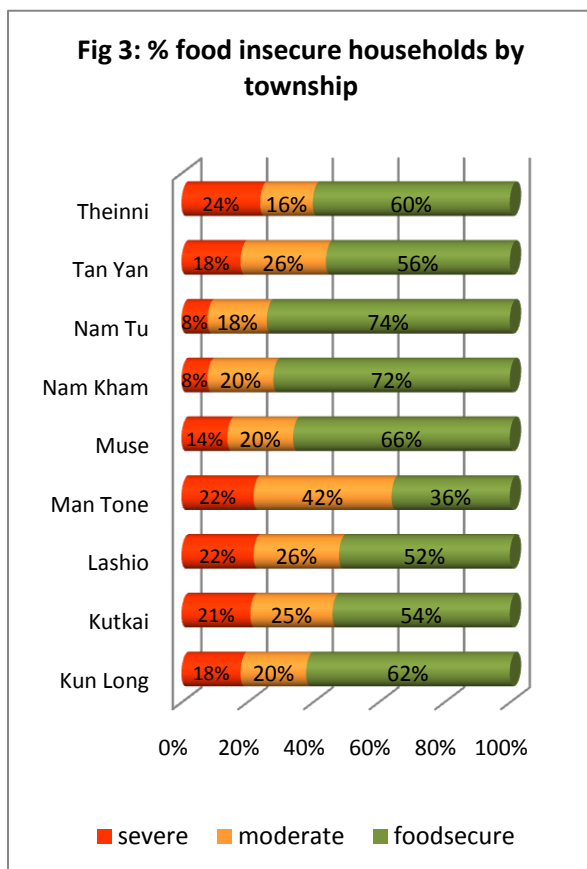
Households with an acceptable diet consume rice and vegetables daily, pulses half the week, occasionally tubers, meats and fruits (see Table 2).

The severely affected townships with inadequate food consumption levels are: Man Tone, Theinni and Kun Long, followed by Kutkai and Tan Yan.

Map 4: Proportion of Households Poor and Borderline Food Consumption Score
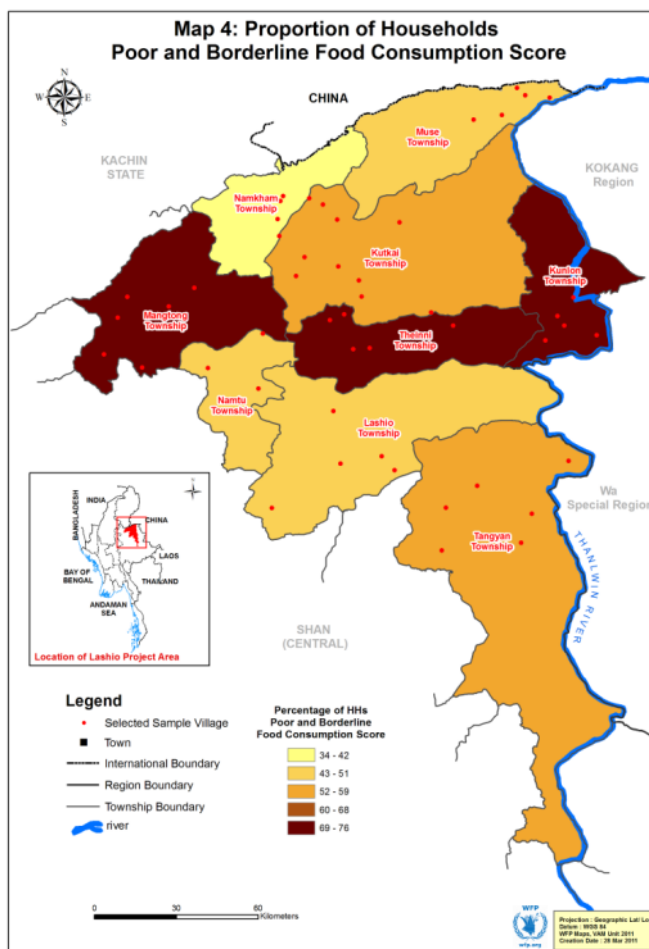
Table 2: Number of days food is consumed by food consumption group

Consumption level	Rice	Cereals	Potatoes	Pulses	Vegetable	Fruits	Meat	Eggs	Fish	Dairies	Oil/Fat	Sugar	Condiments
Poor	7.0	0.4	1.1	0.2	5.7	0.4	0.0	0.0	0.1	0.0	4.6	0.1	6.9
Borderline	6.9	0.4	1.6	1.5	5.9	0.7	0.7	0.5	0.3	0.0	6.3	0.5	6.9
Acceptable	7.0	0.6	1.5	3.7	6.0	1.5	1.9	1.9	1.3	0.7	6.7	1.8	6.9
Total	**7.0**	**0.5**	**1.4**	**2.2**	**5.9**	**1.0**	**1.1**	**1.1**	**0.7**	**0.3**	**6.2**	**1.0**	**6.9**

Food Access

Households' ability to access food in the short to medium term was determined by the analysis of the reliability of food sources, as classified in table 3 below. The size of agricultural land has a great influence on household's access to food. Hence, those with access to larger areas of land are more likely to rely on own rice production and have better food access.

Expenditure on food, as a proxy of income, determines households' access to food. Households relying on a bigger proportion of income on food purchases are more likely to have poor food access. On the other hand, households who accessed food through borrowing or credit are likely to have poor access as

this is not a sustainable means and could be indebted as they may not have the ability to repay the loans (Table 3).

Table 3: Household food access classification

Main source of rice	%	Food access		
		Poor	Medium	Good
Own production	49%	**Below subsistence**: If land <2 acres	**Subsistence**: If land 2 to < 3 acres	**Above subsistence**: If land at least 3 acres
Purchase	45%	**High food exp**: 75% +	**Medium food exp**: 50-<75%	**Low food exp**: <50%
Borrow, credit or advance	2%	**Highly indebted**: Pay back more than 2 months	**Able to pay back**: Pay back within 2 months	
Exchange work for food(not food-aid), gifts, food aid, other source	5%	**Unreliable food source**: All		

Based on this analysis, **21% of households are considered to have poor, 22% medium and 57% good access to food.** Food access has improved this year compared to last year, where 39% of households had good, 30% medium and 31% poor food access (Table 4).

Table 4: Household food security classification in percent

Food access	Food consumption			
	Poor	Borderline	Acceptable	**Total**
Poor (not reliable food source)	6.2%	7.2%	7.4%	**20.8%**
Medium (fairly reliable food source)	4.2%	8.8%	8.8%	**21.8%**
Good (reliable food source)	7.6%	21.4%	28.4%	**57.4%**
Total	**18.0%**	**37.4%**	**44.6%**	**100.0%**

3.4 Who are the food insecure

3.4.1 Demography

From the sampled households, at least half of the population is female. The average household size was **5.7 persons,** with an average dependency ratio of about **one** (0.93) dependent household member (0-14 years and above 65 years) in the productive age group (15-64 years). From the sample, 13% are under-five years, 27% are from 5 to 14 years, and 4% are elderly over 65 years. This is indicative of a high percentage (56%) in the productive age group (15 to 64 years). The dependency ration in male headed households is 0.95 and 0.75 in female headed households. Nearly 50% of the families have children under-five years of age.

About 53% of female headed households are food insecure (severely and moderate). The household size shows a link with food insecurity, as 63% of the households (1-3 persons) being more food insecure,

Fig. 5: Demographic factors
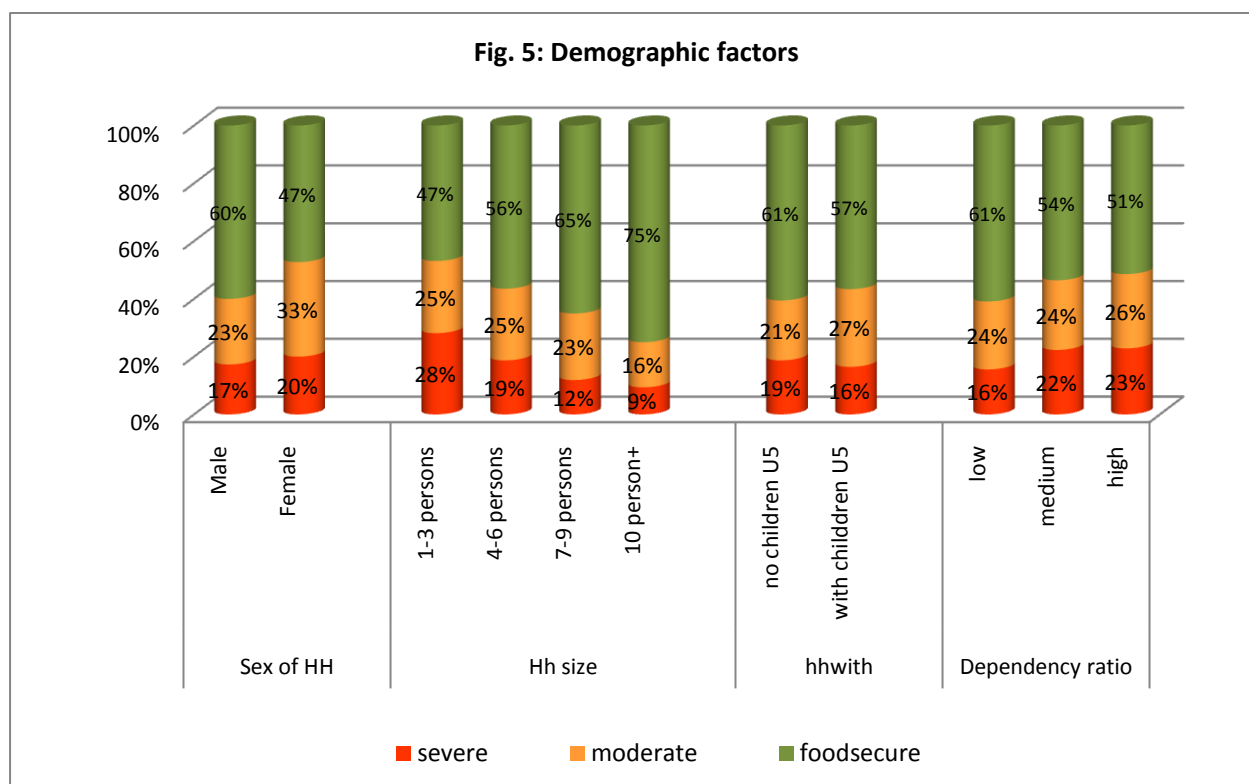
with the level decreasing as household size increases. Furthermore, households with children under 5 or having elderly person are more likely to be severely food insecure not have these members.

3.4.2 Livelihoods

The most common livelihood activities are casual wage labour, followed by farming, small trade, and wood/bamboo cutting. **About 37% are casual labours, nearly 22% of the households reported farming as one of their source of income** (see Table 5). Sale of livestock, remittance, marginal income, regular salary earners, artisan, and trade/business are minor livelihood activities except for some of the townships. Livestock is important in Kutkai and Nam Tu; while wood/bamboo, remittances, and salary are dominant in Kutkai. Fishing is only available Kutkai and Nam Tu Townships. Most of the trade/business livelihoods are in Lashio and Muse Townships (Table 5).

Table 5: Percent of households engaging in different livelihood activities by township

Livelihood activities	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	Total
Casual Labor	**10%**	18%	**10%**	**10%**	**10%**	9%	7%	**15%**	9%	**37%**
Farming	**16%**	10%	**14%**	8%	8%	5%	**15%**	9%	**15%**	**22%**
Small trade	9%	**26%**	12%	**19%**	1%	8%	**14%**	0%	**11%**	**12%**
Wood & bamboo cutting	1%	**34%**	3%	3%	7%	**14%**	4%	**30%**	4%	**10%**
Sale of livestock	**20%**	**24%**	2%	2%	**16%**	4%	**24%**	4%	2%	6%
Remittance	**14%**	**39%**	0%	0%	**11%**	7%	7%	**11%**	**11%**	4%
Regular salary	6%	**38%**	0%	6%	6%	**19%**	6%	6%	**13%**	2%
Artisan	0%	17%	0%	**17%**	0%	**25%**	**25%**	**17%**	0%	2%
Trade / business	0%	9%	**27%**	0%	**27%**	**18%**	9%	0%	9%	2%

| Fishing | 0% | **50%** | 0% | 0% | 0% | 0% | **50%** | 0% | 0% | 0% |
| Marginal livelihoods | 8% | **21%** | 13% | **17%** | 13% | 8% | 8% | 0% | **13%** | 3% |

Households relying on **casual labor (51%) and marginal income sources** (credit, gathering of wild foods, begging and relying on food assistance) **(50%)** are more **food insecure (severe and moderate)**. The other groups that face food insecurity (severe and moderate) are households whose main livelihoods are dependent on small **trade (41%), wood and bamboo cutting (42%) and remittances (32%).** Households engaged in farming are more likely to be more food secure than the previous categories, but more insecure than households relying on trade and business, fishing, sale of livestock, regular salary and artisans (see Fig. 6).

Fig. 6: Food security status by livelihood activity
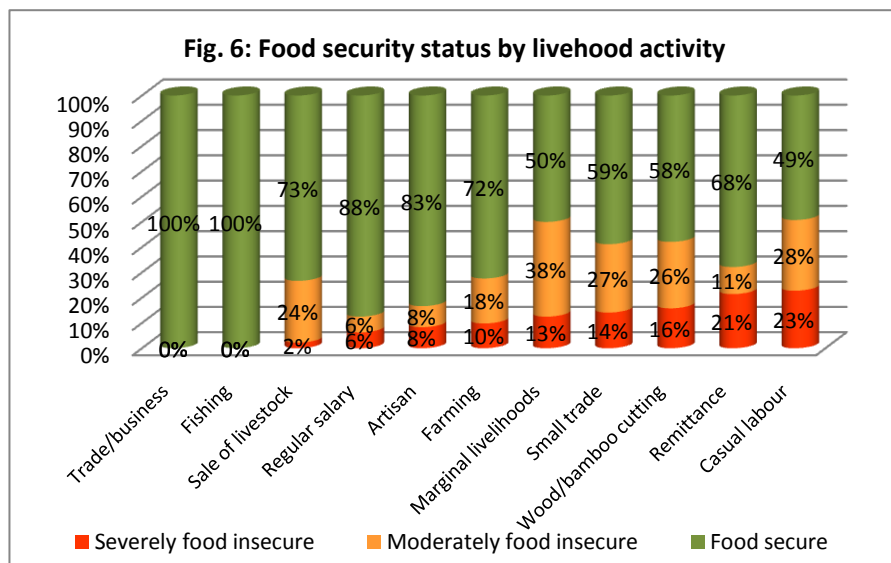
3.4.3 Assets ownership

Asset ownership is a proxy of the wealth status of a household. It is also associated with the level of resilience or ability to withstand the impact of a potential shock. Eighty-four percent (84%) of the households own livestock. Most have poultry (54%), followed by pigs (20%), cattle (14%), buffalo (9%) and goats (2%).

Farm machinery such as ploughs, harrows, oxcarts are owned by 41% of the households. A sewing machine, carpentry and mason tools are owned by 36% of the households. Cash and jewelry was also reported by 23% (see Annex 11)

The most food secure tended to own livestock, agricultural tools, farm machinery, a motorbike, or had savings (see Fig. 7).

Fig. 7: % of food insecure HHs by asset ownership
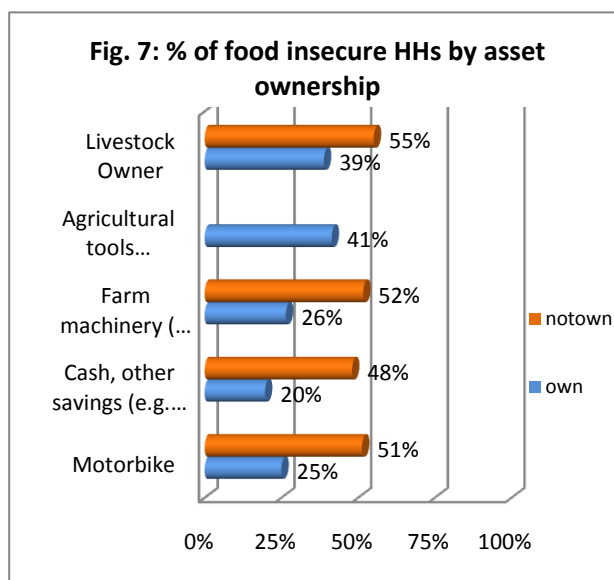
4. Key vulnerability issues and opportunities

4.1 Agriculture

At least **98% of households have access to agricultural land**. On average, they cultivate 4.1 acres, which is over the subsistence level. The largest average land holding per household is in Kun Long and Muse Townships (5.53 acres) (see Fig. 8). Households without access to land (2.4%) are more food insecure.

The quality of agricultural land is also an important determinant of access to food[2]. At least 35% of the households with agricultural land have wet paddy land, 61% have small gardens, 27% own an orchard, 49% have rain-fed flatlands, and 45% use land in upland (shifting cultivation). Only 27% have access to irrigation systems. Most of the farming households (95%) own some agricultural land; 7% access land by paying a rent in-kind, and 3% by paying it in cash; and 4% access agricultural land for free but without having ownership (see Annex 3).

In general, households with access to wet paddy and irrigation land are generally more food secure compared to those without access (see Fig. 10). For improved food security, decisive factors are **access to wet paddy land, rain fed flatland and access to irrigation** (see Fig. 10).

Across the entire sample, the most common food crops grown are rice, maize and vegetables. Rice and maize are grown by nearly one in three households, vegetable by one in five, and pulses by one in ten households. Tea is also important and is grown by 9% of the households. There are differences between the tow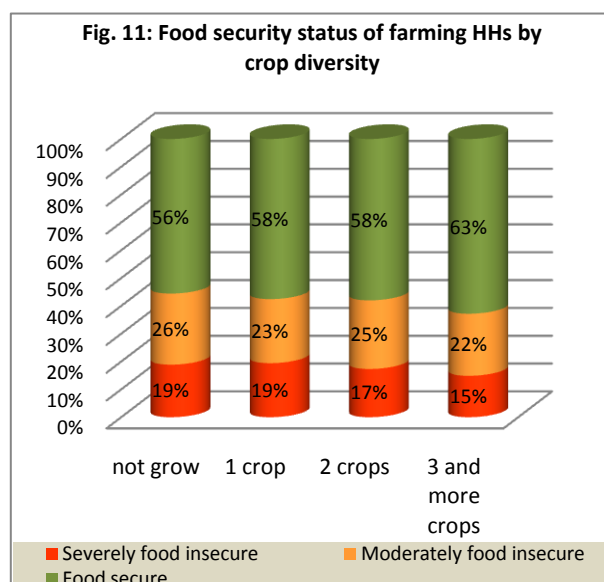nships, rice is most cultivated in Kutkai, maize in Lashio, pulses in Kun Long, tea in Man Tone and in Nam Tu, and vegetables in Kun Long (see Annex 4).

Fig. 10: % of food secure HHs by type of land access

	without	with
Wet-paddyland	50%	75%
Upland	58%	59%
Rain fed flatland	54%	64%
Access to irrigation	52%	79%

Fig. 11: Food security status of farming HHs by crop diversity

	not grow	1 crop	2 crops	3 and more crops
Food secure	56%	58%	58%	63%
Moderately food insecure	26%	23%	25%	22%
Severely food insecure	19%	19%	17%	15%
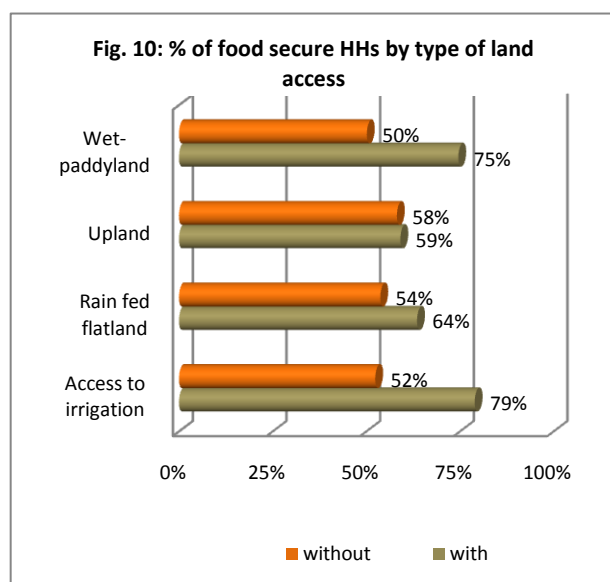
Regarding crop diversity, on average four different types of crops per farming household are grown in Nam Kham Township, and the lowest is 2 crops in Kutkai Township. **Farming households cultivating**

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[2] Wet paddy is land with dyke to accumulate rain water or from irrigation; Rain-fed flat land is dry flat land where crops can be grown in rainy season or by irrigation. Upland/shifting is land cultivated by shifting the farm location at regular intervals (few years). Small Gardens are usually less than 0.5 acre.

more crops are slightly better food secure (see Fig. 11). Households producing pulses are more likely to be food secure as 28% of pulse producing farming households are more food secure than others.

The major constraints to agriculture productivity were: i) inability to afford inputs for agriculture to high prices (20%); high labour costs (15%); and pest problems (12%). These constraints have significantly affected households in Kutkai, Lashio, Nam Kham and Theinni Townships (Annex 5).

Price monitoring revealed that in some markets (Pan Say and Man Tone), prices of rice have increased by 20%.

Main agricultural constraints for farming households:	
1. High cost of agricultural inputs	(29%)
2. High costs of labor	(15%)
3. Animal pest	(12%)
4. Insufficient Labor	(8%)
5. Plant diseases	(7%)
6. Lack of land	(7%)
7. Drought	(5%)
8. Other constraints	(22%)

4.2 Labour migration

Labor migration and number of income earners are closely correlated to household food security. The percentage of food insecure households with 3 or more income earners decreased to 29% (Figure 12). Most of the households (47%) have two income earners; 25% have three; 26% have one; and 2% have none.

Labor migration contributes to increased food security (see Fig. 12); 23% of households reported at least one household member was working outside the community. Between the townships, labor migration is more common (around 28%) in Kutkai, Muse, Nam Kham and Nam Tu townships, while less common (6% or less) in Lashio and Tan Yan townships.

The contribution from remittances and labour migrants is not significant, but contributes to improve the food security of the households. About 65% of households with migrant laborers were food secure, compared to 57% in households without (Figure 12).

Fig. 12: Food security status by number of income earners and labour migration

The destination of labor migration within Myanmar is (11%) and to other countries is (12.6%): mainly to China (9.8%), and Thailand/ Malaysia (2.2%). Migrants are predominantly male and most migrants (44%) are out for a short time (less than 3 months); 22% stay away for more than six months; 11% leave for three to six months; and 24% are long-term migrants. Households with migrants within Myanmar and with members leaving for short periods are more likely to benefit from the remittances, and be more food secure. Households with migrants staying away for over six months are more likely to be severely food insecure (see Fig. 13).

Fig. 13: Food security status of household with labour migrants

Legend: ■ Severely food insecure ■ Moderately food insecure ■ Food secure
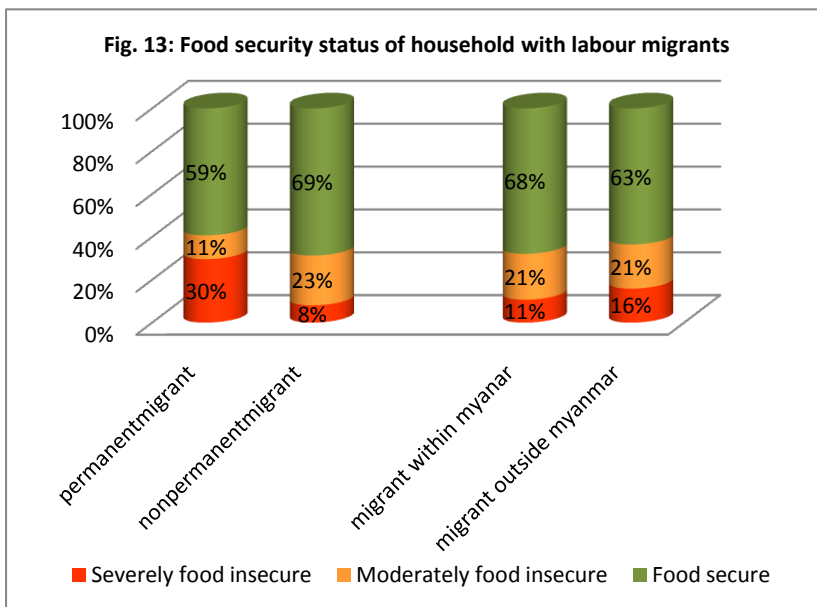
4.3 Indebtedness

About 71% of the households are indebted in 2011, compared to only 66% in 2010. **The main reason for taking loans was to meet immediate food needs,** illustrating that many households are at risk of a falling into food insecurity and a debt trap (see Fig. 14). On average the loan was 100,000 Kyats[3], which is about 115 USD. Only 10% of households reported that they will be able to repay the loan within 2 months; 12% in 2 to 4 months; and 50% will need more than 4 months to pay back their loans. Hence, most households may not be able to take new loans to meet future food needs.
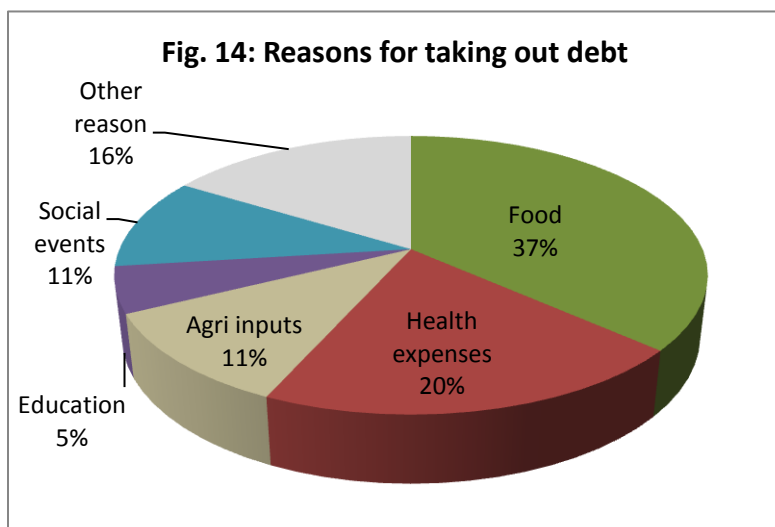
Moderately food insecure households are more likely to be indebted (79%), compared to 71% of food secure, and 63% of severely food secure households.

Fig. 14: Reasons for taking out debt

Other reason 16%
Social events 11%
Agri inputs 11%
Education 5%
Food 37%
Health expenses 20%

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[3] At the time of the assessment 1 US$ = 889 MMK.

The main reasons for taking out loans vary. **Severely food insecure households took credit mainly to meet their immediate food needs and health expenses;** while food secure and moderately food insecure households are more likely to take credit to buy agricultural inputs, in addition to meeting food and health expenses (see Fig. 15).

4.4 Education

The sample covered 762 primary school-aged children. There is a slight gender gap in enrolment with 44% of the girls enrolled compared to 49% of the boys. **Households with good food access are more likely to enroll their children compared to households with poor food access.** This illustrates how food insecurity can lead to a **vicious cycle or poverty trap** (Figure 16).

Fig. 15: Food security status of indebted households

Severely food insecure
Moderately food insecure
Food secure

Fig. 16: % Children Enrolled
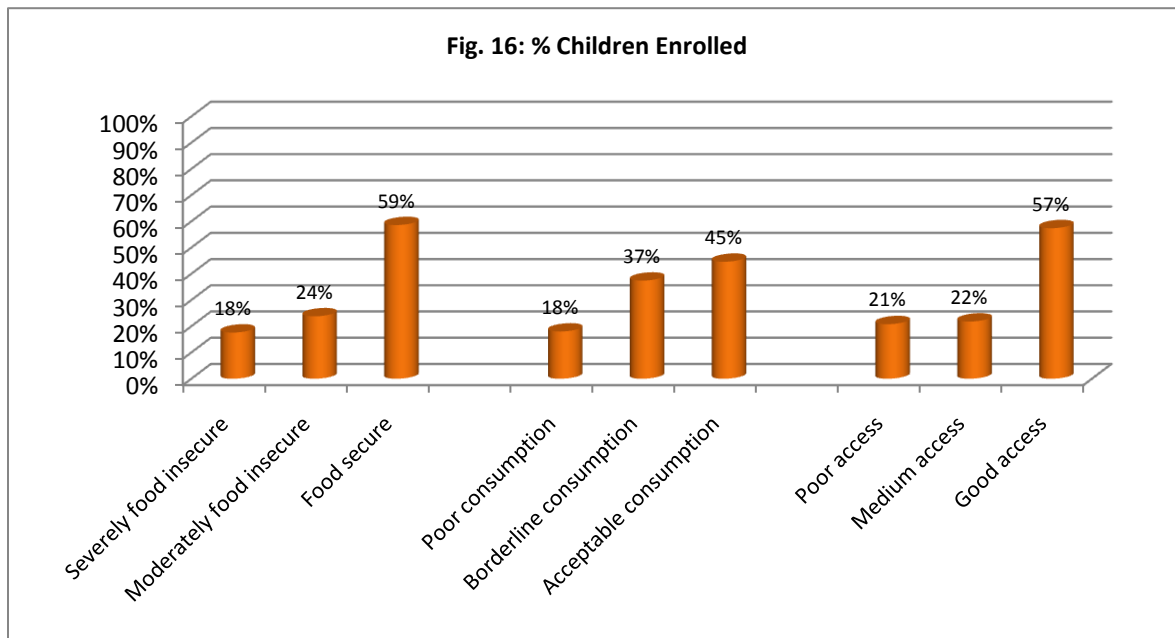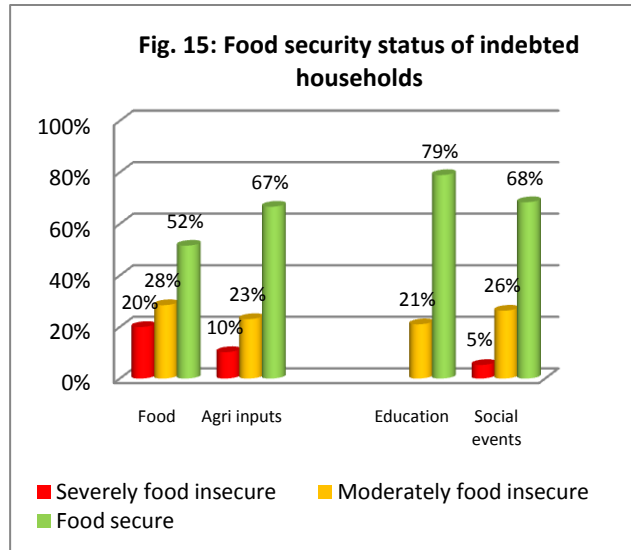
Approximately, 6.4% could not regularly attend school. The main reasons for not attending were: i) illness; ii) inability of parents to afford education costs; iii) child labor (mainly for boys); and iv) domestic chores (mainly for girls).

Main reasons for not attending school

Boys

6.	Illness	(63%)
7.	Domestic chores	(13%)
8.	Cannot afford school-fees, uniform and materials	(8%)
9.	Not interested	(8%)
10.	Cannot pay transportation_ far away	(4%)

Girls

5.	Illness	(50%)
6.	Domestic chores	(21%)
7.	Cannot afford school-fees, uniform and materials	(7%)
8.	Cannot pay transportation_ far away	(7%)

4.5 Water and Sanitation

Access to nutritious food, good care practices and a healthy environment are the underlying factors for determining the nutrition situation. One critical factor for a healthy environment and food utilization is access to safe drinking water. Only every second household has access to an improved drinking water source (pipe, borehole, protected well or other protected sources); 49.6% of households use water from unprotected source, mainly streams or unprotected wells.

Access to safe drinking water varied across townships, with the lowest improved water source reported in Man Tone and Nam Tu (20%) (See Annex 6). Compared to last year, the situation in these two townships has worsened due to loss of the piped water in Man Tone.

Treatment of water by households has increased with their participation in nutrition and hygiene training (see Fig. 17).

Table 6: Household at risk of consuming contaminated water			
	No treatment	**Treatment**	**Total**
No improved source	**36%**	**14%**	**50%**
Improved source	**22%**	**29%**	**50%**
Total	**58%**	**42%**	**100%**

Fig. 17: Water treatment and training

Improved drinking-water sources are more likely to provide safe drinking water than unimproved sources. However, the water may still contain harmful substances, and clean water can be contaminated during transport and storage. Therefore, the treatment of drinking water is an important factor. Across the sample, only 42% of households were treating the water before consumption. This is a slight improvement compared to last year when 38% of households reported treating their water. The most common methods used were: boiling (37%) and and filtering (6%). If combined (access to improved water and treatment), **29% of households have a low risk, 36% have a medium risk and 36% have a high risk of consuming contaminated drinking water** (see Table 6).

In terms of sanitation, 88% of households have access to latrine (37% use a fly proof latrine, 10% a surface latrine, and 41% a direct pit latrine).

4.6 Shocks and coping mechanisms

Exposure to shocks - including natural hazards and economic shocks – as well as household's ability to cope with the impact of these shocks affect both current and future food security status. Households were asked to list the three main shocks or difficulties they faced during the past six months: 1) high health expenditure (13%); 2) few job opportunities and low wages (10%); and 3) high post-harvest losses (9.7%) (Annex 7).

Main shocks/difficulties:

1. High health expenditures, _____13.0%
2. Few job opportunities and low wages, 10.1%
3. High post-harvest losses, _____9.7%
4. Education expenditure, _____4.5%
5. Debt to reimburse, _____ 4.1%
6. Others, _____11.9%
7. No difficulty mentioned, _____46.8%

The ability of households to cope with the situation without applying negative coping strategies is critical. Across the entire sample, **58% of households reported using at least one of the coping strategies** indicated in the table on the right.

In terms of livelihoods, households involved in fishing, artisan and wood/bamboo cutting, casual labor or/and small trade used more coping mechanisms than the other groups. Households relying on trade and business used less coping mechanisms (see Fig. 18)

The pattern is similar to the food security status of some of the livelihood groups, illustrating the close link between households' food security level and the use of negative coping mechanisms.

Households that are stressed are more likely to be food insecure (see Fig. 19). Households which were affected by major shocks were likely to apply negative

Coping strategies:

1. Purchase food on credit _____ 36%
2. Rely on less expensive food _____ 26%
3. Limited portion size at meals _____ 23%
4. Reduced no of meals _____ 15%
5. Restrict consumption by adult _____ 14%
6. Rely on others _____ 13%

Fig. 18: Level of coping of HHs affected by livelihood activity

Fig. 19: Food security status and coping level of households
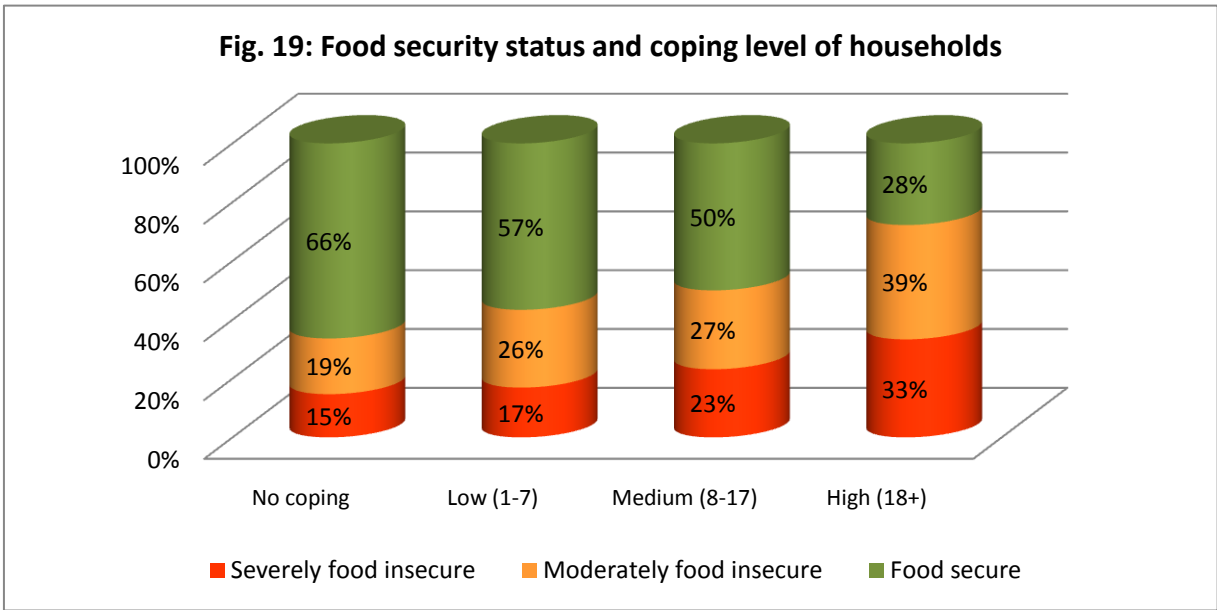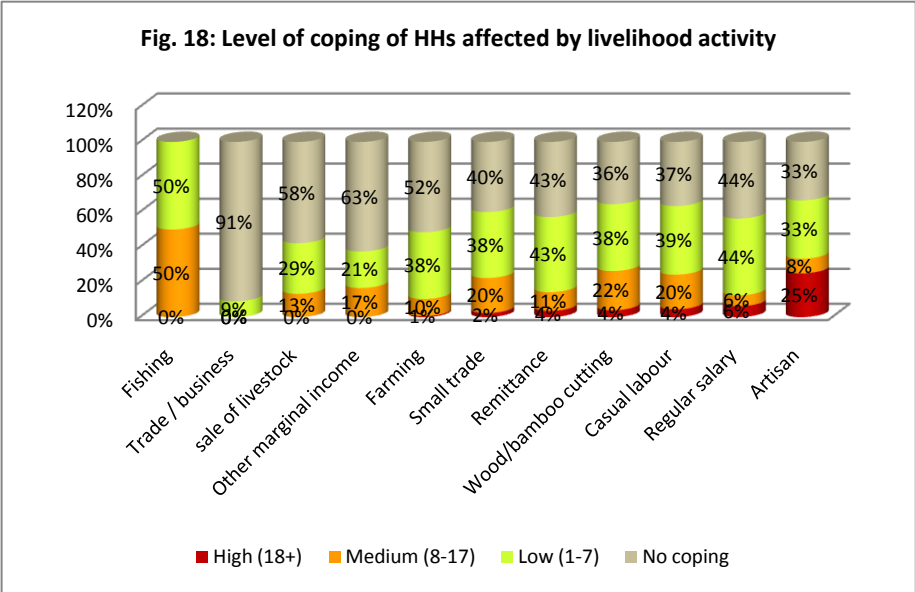
coping mechanisms (see Fig. 20). Households affected by high post-harvest losses; few job opportunities/low wages; sickness/health expenditures were more likely to be food insecure than the households that reported the other shocks.

5. Towards ensuring food security

Main underlying factors contributing to food insecurity in Lashio area are the inability to afford agriculture inputs; lack of access to land in some areas; low agricultural outputs; limited purchasing power; few labour opportunities; high food prices; and indebtedness. Most of the underlying causes are structural requiring longer-term interventions. However, the current food insecurity situation calls for continued humanitarian interventions. Below is a list with preliminary priority actions which should be considered.

Fig. 21: Factors contributing to increased risk of food insecurity and malnutrition in Lashio area
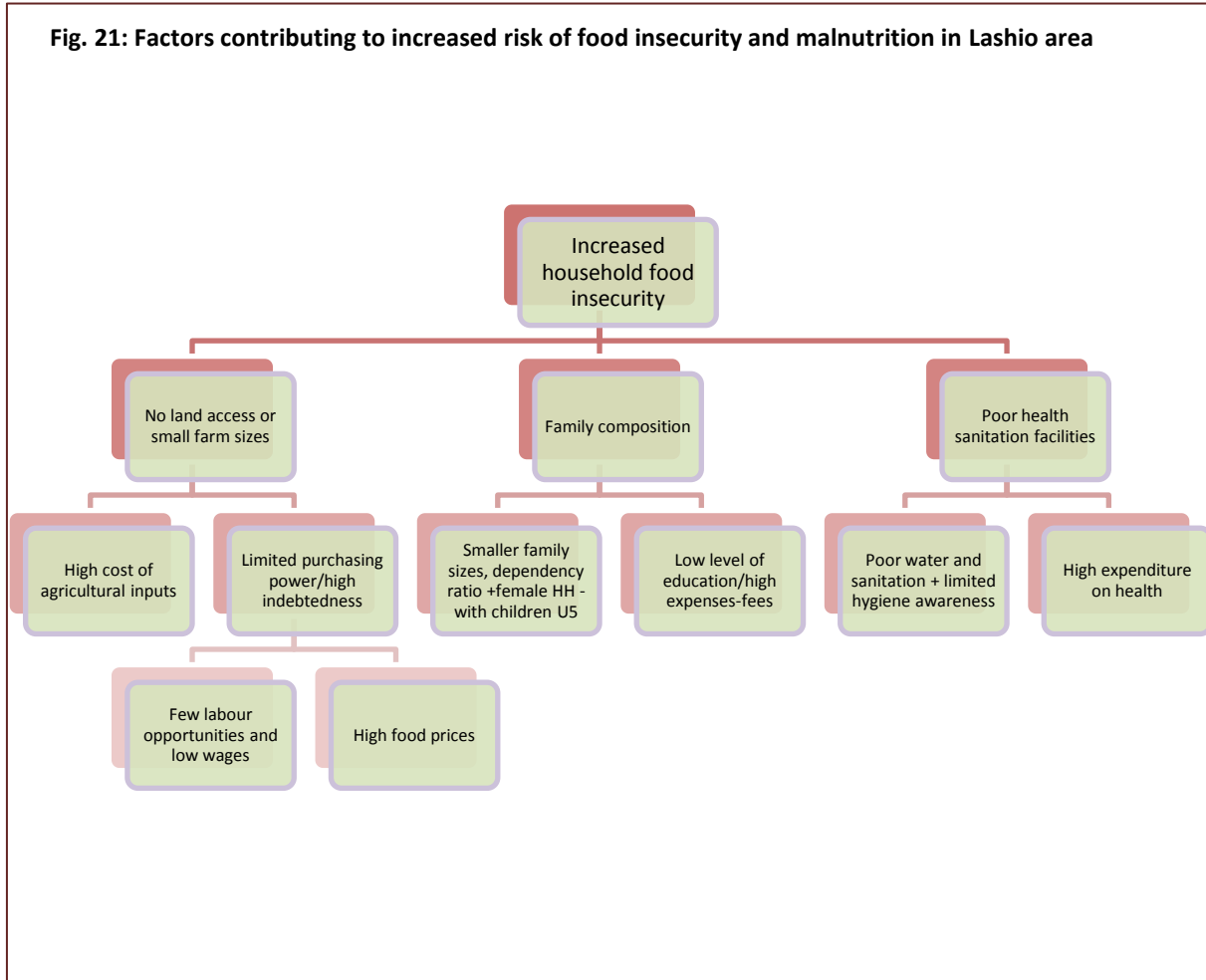
Short-term interventions:

- Implement livelihood activities, through food or cash for work, for small-scale farmers and casual labours;
- Provision of agriculture inputs;
- Food for education programmes in areas with low enrolment and attendance rates;
- Encourage partners working in the area to undertake a nutrition survey.

Medium- to longer term interventions:

- Invest into the creation of sustainable income generating opportunities through livelihood support projects;
- Enhance agricultural extension programmes to improve agricultural practices and increase productivity (livestock, crop diversity, pest management, soil and water conservation, strategies to minimize post-harvest losses, etc.);
- Assist farmers in gaining access to affordable agricultural inputs;
- Increase access to agricultural credits and markets
- Increase market linkages with surplus regions in Myanmar

6. Annexes

Annex 1: Food consumption, food access and food security by township										
	N	Food consumption group			Food access			Food security		
Townships		Poor	Borderline	Acceptable	Poor access	Medium access	Good access	Severely food insecure	Moderately food insecure	Food secure
Kun Long	50	24%	46%	30%	14%	22%	64%	18%	20%	62%
Kutkai	100	12%	42%	46%	28%	21%	51%	21%	25%	54%
Lashio	50	18%	28%	54%	26%	24%	50%	22%	26%	52%
Man Tone	50	40%	36%	24%	28%	14%	58%	22%	42%	36%
Muse	50	12%	36%	52%	22%	12%	66%	14%	20%	66%
Nam Kham	50	8%	26%	66%	16%	30%	54%	8%	20%	72%
Nam Tu	50	12%	34%	54%	8%	20%	72%	8%	18%	74%
Tan Yan	50	24%	34%	42%	12%	44%	44%	18%	26%	56%
Theinni	50	18%	50%	32%	26%	10%	64%	24%	16%	60%
Total	500	18%	37%	45%	21%	22%	57%	18%	24%	59%

Annex 2: Food consumption, food access and food security by livelihood activity										
		Food consumption group			Food access			Food security		
Livelihoods Activities	N	Poor	Borderline	Acceptable	Poor access	Medium access	Good access	Severely food insecure	Moderately food insecure	Food secure
Wages (Casual Labor)	268	23.5%	37.7%	38.8%	26.9%	25.4%	47.8%	22.8%	28.0%	49.3%
Salary Job	16	6.3%	12.5%	81.3%	6.3%	.0%	93.8%	6.3%	6.3%	87.5%
Farming / agriculture	163	12.9%	38.0%	49.1%	9.2%	17.2%	73.6%	9.8%	17.8%	72.4%
Fishing /fish pond and swamp pond	2	.0%	50.0%	50.0%	.0%	50.0%	50.0%	.0%	.0%	100.0%
Wood / bamboo cutting	76	17.1%	28.9%	53.9%	21.1%	31.6%	47.4%	15.8%	26.3%	57.9%
Trade / business	11	.0%	18.2%	81.8%	.0%	.0%	100.0%	.0%	.0%	100.0%
Small trade	85	11.8%	41.2%	47.1%	21.2%	22.4%	56.5%	14.1%	27.1%	58.8%
Artisan	12	16.7%	16.7%	66.7%	8.3%	16.7%	75.0%	8.3%	8.3%	83.3%
Remittance	28	7.1%	32.1%	60.7%	21.4%	25.0%	53.6%	21.4%	10.7%	67.9%
sale of livestock	45	6.7%	31.1%	62.2%	13.3%	17.8%	68.9%	2.2%	24.4%	73.3%
Other income	24	29.2%	41.7%	29.2%	16.7%	16.7%	66.7%	12.5%	37.5%	50.0%

Annex 3: Access to land by township											
	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	Total
Access to agriculture land	12	98%	96%	100%	100%	98%	100%	98%	100%	90%	98%
Access to irrigation system	133	26.5%	24.0%	28.0%	10.0%	22.4%	34.0%	26.5%	34.0%	44.4%	27.3%
Average acre	487	5.53	2.72	4.52	3.52	5.62	3.58	5.07	3.59	4.25	4.12
Below subsistence: < 2 acre	95	16.0%	35.0%	16.0%	12.0%	18.0%	18.0%	6.0%	26.0%	8.0%	19.0%

subsistence : 2 to <3 acres	118	22.0%	29.0%	26.0%	24.0%	8.0%	32.0%	22.0%	20.0%	24.0%	23.6%
Above subsistence: 3 acres and above	275	60.0%	32.0%	58.0%	64.0%	72.0%	50.0%	70.0%	54.0%	58.0%	55.0%
Small garden	304	74.0%	55.0%	28.0%	64.0%	84.0%	80.0%	60.0%	70.0%	38.0%	60.8%
Wet paddy	173	22.0%	20.0%	62.0%	18.0%	56.0%	34.0%	26.0%	32.0%	56.0%	34.6%
Rain-fed flatland	247	38.0%	46.0%	88.0%	18.0%	58.0%	48.0%	44.0%	28.0%	80.0%	49.4%
Upland	225	72.0%	31.0%	2.0%	86.0%	34.0%	28.0%	54.0%	84.0%	28.0%	45.0%
Orchard	135	12.0%	17.0%	6.0%	66.0%	40.0%	62.0%	16.0%	22.0%	12.0%	27.0%
Owned	474	88.0%	92.0%	96.0%	100.0%	98.0%	100.0%	96.0%	98.0%	88.0%	94.8%
Rented in kind	35	6.0%	11.0%	4.0%		16.0%	2.0%	12.0%	2.0%	6.0%	7.0%
Rented in cash	16	6.0%	1.0%	4.0%		4.0%	2.0%	8.0%		6.0%	3.2%
Free access	20	14.0%	4.0%	4.0%				8.0%		6.0%	4.0%

Annex 4: Types of food crops by township										
	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	Total
no. of crops	**500**	**3.36**	**2.17**	**2.26**	**2.78**	**3.38**	**3.86**	**3.08**	**2.62**	**2.30**	**2.80**
rice	374	24%	34%	35%	34%	23%	11%	26%	35%	33%	27%
corn and maize	362	26%	33%	39%	11%	22%	20%	23%	35%	38%	27%
bean and pulses	167	16%	9%	15%	4%	15%	22%	9%	15%	3%	12%
tea leave	116	1%	5%	0%	24%	15%	15%	6%	7%	3%	9%
onion	16	1%	0%	0%	1%	0%	1%	5%	0%	4%	1%
garlic	21	1%	0%	2%	0%	0%	4%	4%	0%	4%	2%
fruit	22	5%	1%	1%	0%	1%	3%	1%	0%	1%	2%
vegetable	283	28%	18%	9%	27%	24%	25%	26%	8%	15%	21%

Annex 5: Agricultural constraints by township										
Constraint	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	Total
No land available	33	12.2%	6.3%	2.0%		8.2%	8.0%	8.2%	16.0%		6.8%
Can't afford rental fees for land	5		3.1%		4.0%						1.0%
Pest (e.g. Rat, elephant)	60	10.2%	5.2%	10.0%	48.0%	8.2%	6.0%	20.4%	6.0%	2.2%	12.3%
Diseases	35	4.1%	5.2%	2.0%	12.0%	10.2%	20.0%	4.1%	6.0%	2.2%	7.2%
Due to the drought	23	2.0%	2.1%	4.0%	8.0%	6.1%	6.0%	4.1%	10.0%	2.2%	4.7%
Due to the flood	18	2.0%	3.1%					16.3%	12.0%		3.7%
Can't afford rental fees for labor	74	24.5%	20.8%	2.0%	10.0%	12.2%	2.0%	16.3%	10.0%	35.6%	15.2%
Not enough labor available	39	20.4%	1.0%	6.0%	10.0%	14.3%	10.0%	4.1%	10.0%	2.2%	8.0%
Cannot afford good quality seed, fertilizer	141	14.3%	37.5%	54.0%		28.6%	34.0%	14.3%	24.0%	46.7%	28.9%
Other constraint	60	10.2%	15.6%	20.0%	8.0%	12.2%	14.0%	12.2%	6.0%	8.9%	12.3%

Annex 6: Access to water and sanitation by township										
	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	**Total**

	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	Total
Piped water source	92	2.0%	38.0%	8.0%	10.0%	20.0%	38.0%	10.0%	8.0%	12.0%	18.4%
Borehole with pump	9		9.0%								1.8%
Protected well or other protected source	151	20.0%	25.0%	58.0%	10.0%	38.0%	30.0%	10.0%	14.0%	72.0%	30.2%
Other unprotected sources (river, pond….)	247	78.0%	28.0%	34.0%	80.0%	42.0%	30.0%	80.0%	78.0%	16.0%	49.4%
Other drinking water source	1						2.0%				.2%
Treat water by boiling	183	32.0%	56.0%	24.0%	10.0%	34.0%	50.0%	40.0%	14.0%	50.0%	36.6%
Treat water by filter	28	4.0%	16.0%	8.0%	2.0%			10.0%			5.6%
Received-health education on nutrition & hygiene	140	54.0%	32.0%	40.0%	14.0%	38.0%	10.0%	22.0%	2.0%	36.0%	28.0%
No latrine	62	34.0%	6.0%	14.0%	6.0%	20.0%	2.0%	12.0%	22.0%	2.0%		12.4%
Surface latrine	48		6.0%	4.0%	32.0%	12.0%	24.0%	4.0%	2.0%	6.0%	9.6%
Direct pit latrine	206	50.0%	43.0%	36.0%	38.0%	48.0%	54.0%	54.0%	32.0%	14.0%	41.2%
Fly Proof latrine	184	16.0%	45.0%	46.0%	24.0%	20.0%	20.0%	30.0%	44.0%	78.0%	36.8%

Annex 7: Exposure to shocks and other difficulties by township											
	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	Total
Few job opportunities/low wages	151	15.9%	23.2%	6.6%	7.3%	12.6%	9.3%	3.3%	7.3%	14.6%	10.1%
Unable to practice fishing	1	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%	.1%
Sickness/health expenditures	195	12.3%	23.6%	6.7%	16.4%	8.2%	4.1%	8.2%	8.7%	11.8%	13.0%
Unable to practice agriculture	39	.0%	28.2%	28.2%	.0%	10.3%	7.7%	10.3%	10.3%	5.1%	2.6%
Education expenditure	67	22.4%	26.9%	.0%	9.0%	10.4%	10.4%	6.0%	1.5%	13.4%	4.5%
Lack of access to markets	13	38.5%	15.4%	.0%	.0%	7.7%	7.7%	30.8%	.0%	.0%	.9%
Unable to obtain a good price for agricultural produce	33	18.2%	3.0%	.0%	12.1%	.0%	9.1%	12.1%	.0%	45.5%	2.2%
High post-harvest losses	146	10.3%	15.1%	8.2%	19.2%	2.7%	8.9%	8.2%	19.9%	7.5%	9.7%
Debt to reimburse	61	16.4%	24.6%	8.2%	.0%	3.3%	9.8%	16.4%	6.6%	14.8%	4.1%
Floods, heavy rains, landslides	18	.0%	16.7%	.0%	.0%	11.1%	5.6%	33.3%	33.3%	.0%	1.2%
Drought	12	.0%	8.3%	8.3%	.0%	33.3%	8.3%	.0%	41.7%	.0%	.8%
Other shocks	62	30.6%	14.5%	8.1%	1.6%	3.2%	22.6%	1.6%	17.7%	.0%	4.1%
No difficulty mentioned	702	4.6%	19.5%	13.2%	9.7%	12.7%	11.3%	12.0%	8.8%	8.3%	46.8%

Annex 8: Coping strategies by township											
	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	Total
No coping	211	38.0%	44.0%	50.0%	32.0%	40.0%	36.0%	56.0%	36.0%	46.0%	42.2%
Low (1-7)	189	38.0%	34.0%	26.0%	44.0%	42.0%	48.0%	38.0%	40.0%	34.0%	37.8%
Medium (8-17)	82	22.0%	17.0%	18.0%	20.0%	16.0%	14.0%	4.0%	18.0%	18.0%	16.4%
High (18+)	18	2.0%	5.0%	6.0%	4.0%	2.0%	2.0%	2.0%	6.0%	2.0%	3.6%
Rely on less preferred and less expensive food	64	46.0%	31.0%	28.0%	26.0%	14.0%	36.0%	16.0%	16.0%	14.0%	25.8%
Food gift / rely on food help from friends or relatives	129	4.0%	10.0%	22.0%	16.0%	16.0%	20.0%	2.0%	16.0%	12.0%	12.8%
Limit portion size at meals	114	38.0%	11.0%	18.0%	16.0%	28.0%	30.0%	14.0%	42.0%	20.0%	22.8%

	72	22.0%	15.0%	8.0%	14.0%	20.0%	10.0%	6.0%	20.0%	14.0%	14.4%
Restrict consumption by adults in order for small children to eat	72	22.0%	15.0%	8.0%	14.0%	20.0%	10.0%	6.0%	20.0%	14.0%	14.4%
Reduce number of meals eaten in a day	74	18.0%	16.0%	6.0%	10.0%	28.0%	2.0%	8.0%	26.0%	18.0%	14.8%
Skip entire days without eating	1								2.0%		.2%
Purchase food on credit, incur debts or borrow food	178	20.0%	42.0%	26.0%	56.0%	22.0%	34.0%	26.0%	48.0%	40.0%	35.6%

Annex 9: Demographic factors by township

	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	**Total**
HH with children U5	249	66.0%	49.0%	32.0%	64.0%	44.0%	50.0%	38.0%	62.0%	44.0%	49.8%
Female HH		2.0%	16.0%	10.0%	2.0%	16.0%	18.0%	12.0%	12.0%	6.0%	11.0%
Female HH -with children U5	19		43.8%	40.0%		12.5%	55.6%	33.3%	16.7%	33.3%	34.5%
HH size	500	6.18	5.98	4.30	5.96	6.14	6.82	5.20	5.42	5.50	5.75
Dependency Ratio	500	1.36	0.95	0.65	1.09	0.79	1.04	0.73	0.99	0.71	0.93
High (more than 2 dep per 1 non dep)	353	50.0%	69.0%	90.0%	60.0%	74.0%	62.0%	78.0%	74.0%	80.0%	70.6%
Medium (>1 to 2 dep per 1 non dep)	112	34.0%	26.0%	6.0%	30.0%	20.0%	30.0%	22.0%	14.0%	16.0%	22.4%
Low (1 dep or less per 1 non dep)	35	16.0%	5.0%	4.0%	10.0%	6.0%	8.0%		12.0%	4.0%	7.0%
% of Elderly	85	14.0%	13.0%	22.0%	16.0%	20.0%	20.0%	12.0%	24.0%	16.0%	17.0%
1-3 persons-HH	64	10.0%	9.0%	28.0%	6.0%	16.0%	4.0%	18.0%	14.0%	14.0%	12.8%
4-6 persons-HH	278	52.0%	57.0%	64.0%	52.0%	40.0%	48.0%	62.0%	60.0%	64.0%	55.6%
7-9 persons-HH	126	28.0%	27.0%	6.0%	38.0%	34.0%	34.0%	16.0%	24.0%	18.0%	25.2%
10 person+-HH	32	10.0%	7.0%	2.0%	4.0%	10.0%	14.0%	4.0%	2.0%	4.0%	6.4%

Annex 10: Livelihood activities by township

	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	**Total**
Wages (Casual Labor)	268	35.4%	32.5%	40.0%	40.9%	43.8%	38.5%	22.8%	47.7%	34.3%	36.7%
Regular salary	16	1.3%	4.0%	.0%	1.5%	1.6%	4.6%	1.3%	1.2%	2.9%	2.2%
Farming	163	32.9%	11.3%	32.9%	19.7%	20.3%	12.3%	31.6%	16.3%	34.3%	22.3%
Fishing	2	.0%	.7%	.0%	.0%	.0%	.0%	1.3%	.0%	.0%	.3%
Wood / bamboo cutting	76	1.3%	17.2%	2.9%	3.0%	7.8%	16.9%	3.8%	26.7%	4.3%	10.4%
Trade / business	11	.0%	.7%	4.3%	.0%	4.7%	3.1%	1.3%	.0%	1.4%	1.5%
Small trade	85	10.1%	14.6%	14.3%	24.2%	1.6%	10.8%	15.2%	.0%	12.9%	11.6%
Artisan	12	.0%	1.3%	.0%	3.0%	.0%	4.6%	3.8%	2.3%	.0%	1.6%
Remittance	28	5.1%	7.3%	.0%	.0%	4.7%	3.1%	2.5%	3.5%	4.3%	3.8%
sale of livestock	45	11.4%	7.3%	1.4%	1.5%	10.9%	3.1%	13.9%	2.3%	1.4%	6.2%
Marginal livelihood	24	2.5%	3.3%	4.3%	6.1%	4.7%	3.1%	2.5%	.0%	4.3%	3.3%
no income earners	10		5.0%	4.0%	2.0%			2.0%		2.0%	2.0%
1 income earners	131	20.0%	33.0%	36.0%	38.0%	22.0%	10.0%	10.0%	26.0%	34.0%	26.2%
2 income earners	235	34.0%	51.0%	46.0%	36.0%	48.0%	54.0%	56.0%	46.0%	48.0%	47.0%
3 or more income earners	124	46.0%	11.0%	14.0%	24.0%	30.0%	36.0%	32.0%	28.0%	16.0%	24.8%
Household with labor migrant	**115**	**12.0%**	**37.0%**	**6.0%**	**14.0%**	**44.0%**	**28.0%**	**38.0%**	**4.0%**	**10.0%**	**23.0%**
Destination: within Myanmar	56	6.0%	18.0%	2.0%	10.0%	22.0%	8.0%	22.0%	4.0%	2.0%	11.2%

	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	Total
Destination: Outside Myanmar	63	8.0%	18.0%	4.0%	4.0%	28.0%	20.0%	18.0%		8.0%	12.6%
Duration: Less than 3 month a year	58	6.0%	18.0%	2.0%	8.0%	28.0%	20.0%	12.0%	4.0%		11.6%
Duration: Between 3 and 6 months a year	16		6.0%		2.0%	4.0%	6.0%	4.0%		4.0%	3.2%
Duration: More than 6 months a year	31	6.0%	8.0%	2.0%	2.0%	14.0%	4.0%	16.0%		2.0%	6.2%
Permanent	27		9.0%	4.0%	2.0%	10.0%	2.0%	14.0%		4.0%	5.4%

Annex 11: Asset ownership by township											
	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	Total
Livestock Owner	**422**	**100.0%**	**86.0%**	**66.0%**	**78.0%**	**88.0%**	**78.0%**	**80.0%**	**98.0%**	**84.0%**	**84.4%**
Goat	4				2.0%	2.0%	4.0%				.8%
Pig	262	86.0%	60.0%	12.0%	28.0%	74.0%	46.0%	58.0%	46.0%	54.0%	52.4%
Poultry	370	100.0%	78.0%	60.0%	46.0%	82.0%	72.0%	74.0%	88.0%	62.0%	74.0%
Mule	7	4.0%			2.0%	2.0%	4.0%		2.0%		1.4%
Horse	21	8.0%			10.0%	14.0%	2.0%	8.0%			4.2%
Cattle	148	32.0%	35.0%	6.0%	30.0%	34.0%	30.0%	26.0%	50.0%	18.0%	29.6%
Buffalo	140	24.0%	28.0%	30.0%	16.0%	40.0%	16.0%	22.0%	34.0%	42.0%	28.0%
Farm machinery	204	34.0%	37.0%	56.0%	20.0%	48.0%	26.0%	32.0%	54.0%	64.0%	40.8%
Tractor/trawlagyi	24		6.0%	16.0%		2.0%	2.0%	2.0%		14.0%	4.8%
Agricultural tools	500	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Fishing net	9		3.0%			2.0%		8.0%	2.0%		1.8%
Sewing machine, Carpenter tools, Mason tools	181	32.0%	17.0%	48.0%	22.0%	48.0%	38.0%	52.0%	52.0%	36.0%	36.2%
Cash, other savings (e.g. jewelry)	117	34.0%	15.0%	28.0%	12.0%	22.0%	38.0%	48.0%	18.0%	4.0%	23.4%
Motorbike	188	16.0%	35.0%	60.0%	24.0%	36.0%	56.0%	34.0%	26.0%	54.0%	37.6%
Car, Taxi, Truck	3					4.0%			2.0%		.6%

Annex 12: Share of expenditure and indebtedness by township											
	N	Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	Total
% Food	461	26.6%	34.2%	43.1%	40.4%	43.4%	29.9%	36.1%	31.5%	39.6%	35.0%
% Education	126	9.0%	7.1%	1.8%	14.7%	10.4%	10.8%	18.0%	9.4%	6.3%	9.6%
% Health	219	15.8%	18.0%	16.5%	13.8%	23.6%	12.7%	15.8%	14.8%	19.8%	16.6%
% Clothes/ shelter	153	14.7%	12.4%	11.0%	11.9%	9.4%	20.4%	10.5%	6.0%	3.6%	11.6%
% Farm inputs	62	6.8%	.8%	8.3%	.0%	6.6%	6.4%	5.3%	4.0%	8.1%	4.7%
% Utilities	171	19.2%	22.9%	8.3%	11.0%	1.9%	5.1%	9.0%	14.1%	10.8%	13.0%
% Transport	41	4.5%	.8%	7.3%	.0%	.9%	3.8%	3.8%	.7%	9.0%	3.1%
% Other	84	3.4%	3.8%	3.7%	8.3%	3.8%	10.8%	1.5%	19.5%	2.7%	6.4%
Indebted	356	66.0%	73.0%	58.0%	88.0%	70.0%	74.0%	60.0%	76.0%	74.0%	71.2%
For food	130	39.4%	28.8%	31.0%	36.4%	28.6%	51.4%	40.0%	57.9%	21.6%	36.5%
For health expenses	72	24.2%	24.7%	10.3%	34.1%	20.0%	2.7%	20.0%	13.2%	24.3%	20.2%
For education	19	3.0%	5.5%		9.1%	2.9%	10.8%	16.7%			5.3%

For farm inputs	39	6.1%	8.2%	20.7%	2.3%	2.9%	2.7%	16.7%	10.5%	35.1%	11.0%
For livestock inputs	2						5.4%				.6%
To buy livestock	4		1.4%			5.7%			2.6%		1.1%
To buy or rent land	4		1.4%			2.9%				5.4%	1.1%
To buy or rent a flat/house	28	9.1%	9.6%	31.0%	2.3%	11.4%	5.4%			5.4%	7.9%
For social events	38	9.1%	13.7%	6.9%	2.3%	22.9%	16.2%	3.3%	15.8%	2.7%	10.7%
Other reason	20	9.1%	6.8%		13.6%	2.9%	5.4%	3.3%		5.4%	5.6%
within 3 months	164	45.5%	46.6%	62.1%	34.1%	48.6%	37.8%	46.7%	44.7%	54.1%	46.1%
debt taken in 3 to six months	52	9.1%	20.5%	6.9%	15.9%	8.6%	18.9%	10.0%	15.8%	16.2%	14.6%
debt taken in six months to one year	65	27.3%	15.1%	17.2%	25.0%	14.3%	10.8%	13.3%	23.7%	18.9%	18.3%
debt taken more than one year	75	18.2%	17.8%	13.8%	25.0%	28.6%	32.4%	30.0%	15.8%	10.8%	21.1%
No debts	144	34.0%	27.0%	42.0%	12.0%	30.0%	26.0%	40.0%	24.0%	26.0%	28.8%
Pay less than 2 months	49	18.0%	9.0%	10.0%	14.0%	6.0%	6.0%	12.0%	8.0%	6.0%	9.8%
Pay 2-4 months	59	10.0%	9.0%	10.0%	10.0%	8.0%	40.0%	8.0%	12.0%	2.0%	11.8%
Pay after 4 months	248	38.0%	55.0%	38.0%	64.0%	56.0%	28.0%	40.0%	56.0%	66.0%	49.6%

Annex 13: enrolment and school attendance by township										
		Kun Long	Kutkai	Lashio	Man Tone	Muse	Nam Kham	Nam Tu	Tan Yan	Theinni	Total
Total school age boys		56	86	21	40	38	45	37	26	34	383
Total school age girls		44	85	21	45	34	52	33	33	32	379
Total school age children		100	171	42	85	72	97	70	59	66	762
Number enrolled boys		11	41	8	32	16	32	19	14	14	187
Number enrolled girls		7	37	9	29	17	34	12	14	8	167
Number enrolled total		18	78	17	61	33	66	31	28	22	354
Number not attending boys		5	2	3	1	1	6	3	1	2	24
Number not attending girls		0	4	1	0	4	4	0	1	0	14
Number not attending total		5	6	4	1	5	10	3	2	2	38
% of enrolled boys		19.6	47.7	38.1	80.0	42.1	71.1	51.4	53.8	41.2	48.8
% of enrolled girls		15.9	43.5	42.9	64.4	50.0	65.4	36.4	42.4	25.0	44.1
% of enrolled total		18.0	45.6	40.5	71.8	45.8	68.0	44.3	47.5	33.3	46.5
% of absent boys		45.5	4.9	37.5	3.1	6.3	18.8	15.8	7.1	14.3	12.8
% of absent girls		-	10.8	11.1	-	23.5	11.8	-	7.1	-	8.4
% of absent total		27.8	7.7	23.5	1.6	15.2	15.2	9.7	7.1	9.1	10.7