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# Food Security Policy Project Research Highlights

## Myanmar

February 2019

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### OFF-FARM EMPLOYMENT IN SOUTHERN SHAN STATE

Zin Wai Aung, Hnin Ei Win, Zaw Min Naing and Soe Thu Lin

#### Introduction

This research highlight presents key features of off-farm employment in Myanmar's Southern Shan State. Analysis is based on the Shan Household Agriculture and Rural Economy Survey (SHARES), which collected detailed information on livelihoods and agriculture from 1562 households in nine townships.

In this study, off-farm employment is defined as any income generating activity that does not take place on the household's farm. Off-farm employment can therefore include both agriculture and non-agriculture related activities. We distinguish four main categories of off-farm employment: casual wage employment, salaried employment, non-farm enterprises, and natural resource extraction. Findings related to migration are presented in a separate research highlight.

Below, we present the research findings in five sub-sections. The first provides a general overview of off-farm employment, and is followed by subsections presenting results on each of the four main categories of off-farm employment listed above.

#### Importance of off-farm employment

The rural economy in Southern Shan is highly agrarian. Eighty-five percent of households surveyed cultivate agricultural land, and 67% and 14% of adults report farming as their primary or secondary occupation, respectively.

Nevertheless, most households earn income from multiple sources, and off-farm employment (including agricultural labor) constitutes a major source of income and rural livelihoods. For example, almost two-thirds (62%) of farm households have members who work off-farm. Moreover, within households, members often do several of types of off-farm work.

Three-quarters (76%) of all households engage in off-farm employment (Table 1). Casual labor is the most important of these. 61% of households engaged in some form of casual wage work during the last 12 months. Agricultural work is the most common form of casual labor, reported by 4% and 43% of working adults as their primary and secondary occupation, respectively.

**Table 1: Participation in off-farm employment by households and individuals (%)**

Employment	Households	Individuals
Any off-farm employment	76	48
Casual Labor	61	37
Salaried Worker	7	3
Non-Farm Enterprise	24	11
Natural Resource Extraction	5	3

Note: Households or individuals can conduct multiple off-farm activities

Nearly a quarter of households (24%) operate a non-farm business. Salaried work and commercial natural resource extraction (e.g. harvesting bamboo or catching fish for sale) are of relatively minor importance, practiced by only 7% and 5% of households respectively. However, 79% of households practice natural resource extraction for subsistence purposes (e.g. collecting firewood or wild foods).

Propensity to work off-farm varies with land ownership and landholding size. We use landholding terciles to analyze this relationship. Terciles are obtained by ranking households in ascending order by area of agricultural land owned, and dividing into three groups of equal size. Tercile 1 is comprised of the third of households with the smallest farms. Tercile 3 is the largest third of farms.

The likelihood of working off-farm is highest for landless households, and declines from landholding tercile 1 to tercile 3. However, off-farm employment is important even for households with larger landholdings: 59% of households from landholding tercile 3 are engaged in work off-farm. Likelihood of engaging in casual labor follows a similar pattern (Table 2).

**Table 2: Household engagement in off-farm employment, by landholding group (%)**

Off-farm employment	Land Ownership			
	Land-less	T1	T2	T3
Any	95	80	74	59
Casual Labor	75	66	63	43
Salaried work	17	6	3	4
NFE*	31	20	25	20
NRE‡	8	6	4	3

Note: Households can conduct multiple off-farm activities.

\*NFE = non-farm enterprise. ‡NRE = natural resource extraction.

Landless households are more likely than landed households to engage in salaried work, non-farm enterprise and commercial natural resource extraction. At the individual level, men and women participate in most of these categories of off-farm employment at similar rates.

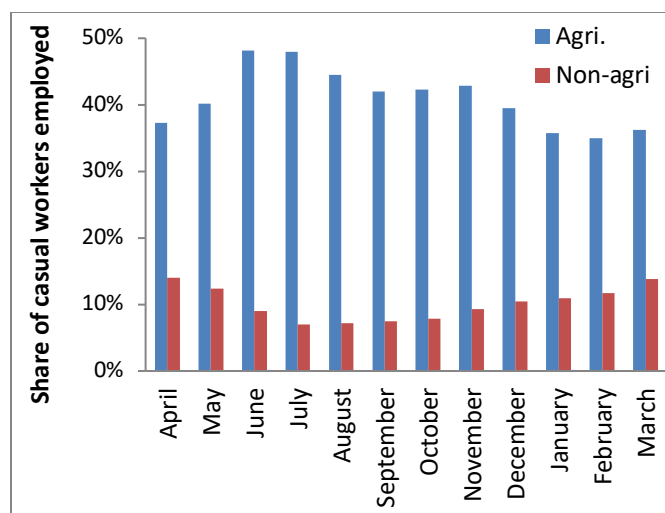
### Casual labor

Agricultural workers account for 79% of casual workers, followed by carpenters/masons who account for 15%. Women are more likely than men to do agricultural wage labor (accounting for 44% and 35% for all workers respectively), but women are rarely employed in any other type of casual work.

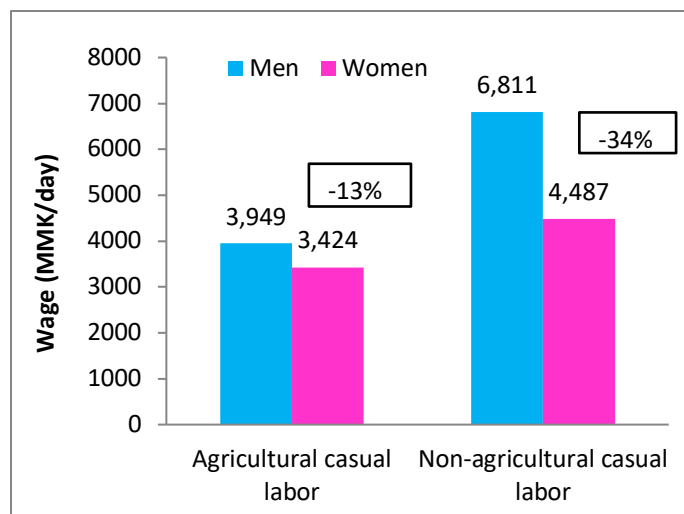
The seasonality of farm and non-farm casual work is complementary. The peak season for agricultural casual work is from June to November, which coincides with the main monsoon crop-growing season. Non-agricultural casual labor increases during the dry season months of December-April, when there is less work available on-farm and most construction work takes place (Figure 1).

Average wages for non-agricultural casual work are higher than the agricultural daily wage for both men and women. Women earn less than men, on average, for the same type of work (Figure 2).

Women earned 13% less on average per day than men for agricultural wage work - MMK 3,424/day (\$2.50)<sup>1</sup> versus MMK 3,949/day (\$2.90). Interestingly, this gender wage gap is smaller than in the Delta and Dry Zone. However, the gender wage gap for non-agricultural work is large, at 34%. Men earn an average of MMK 6,811/day (\$5.00) for non-farm casual work, compared to MMK 4,487/day (\$3.30) earned by women.



**Figure 1: Share of agricultural and non-agricultural casual laborers employed, by month**



**Figure 2: Average daily wages for agricultural and non-agricultural casual labors by gender**

Differences in types of work and specific tasks performed by men and women may explain gender wage gaps, although it is possible that the social valuation of men's and women's work varies even for similar tasks. The relatively small gender wage gap in agricultural work observed in Shan, as compared to other parts of the country, may indicate more limited gender differentiation in the tasks performed. In contrast, the large gap in wages for non-agricultural casual work reflects a high degree of gender segregation in the type of work performed.

<sup>1</sup> MMK 1350 = US\$1

### Salaried workers

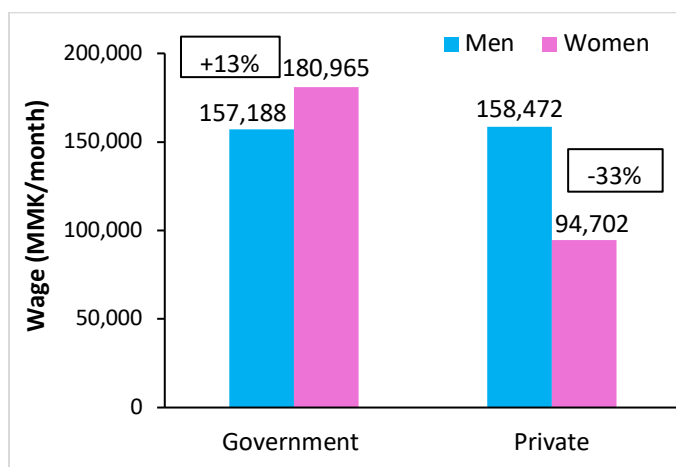
Teaching is the most common type of salaried work (Table 3). Women are much more likely to be teachers than men, with women teachers accounting for 25% of all salaried workers. Men are more likely than women to do other types of salaried work, including working for companies, small and medium enterprises, factories, or as permanent agricultural workers. Overall, men are slightly more likely than women to engage in salaried work, making up 57% of salaried workers.

**Table 3: Participation in salaried worker by gender (%)**

Type of Worker	All	Men	Women
Teacher	29	4	25
Other government job	20	9	11
Company Staff	15	13	2
Worker in SME	11	8	3
Factory worker	7	7	0
Permanent farm worker	6	6	0
Soldier	5	5	0
Mechanic/Construction	4	4	0
Other	3	1	2
Total	100	57	43

The gender wage gap between men and women in government employment is relatively small, with women earning 13% more than men. Among government workers, the average monthly salary for women is 180,965 MMK (\$134), as compared to 157,188 MMK (\$116) for men (Figure 3).

In contrast, women employed by the private sector earn 33% less than men. Women receive MMK 94,702 (\$70) per month as compared to men's earnings of MMK 158,472 (\$117). Private sector salaried work includes a wide variety of jobs, so it is not clear whether these wage gaps reflect different valuations of men's and women's work or gender differences in the type or level of skills.



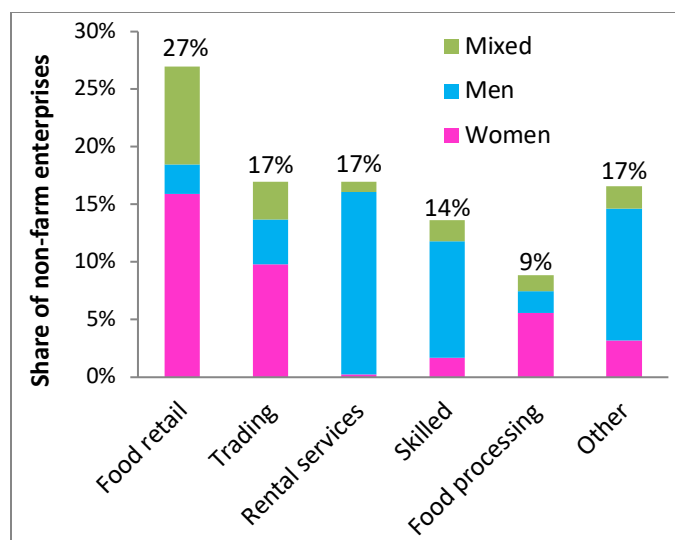
**Figure 3: Monthly wages for government and private salaried workers, by gender**

### Non-farm enterprises (NFE)

For purposes of analysis, we grouped the types of NFE that households in our study area engage in into six main categories: food retail, food processing, trading, skilled (e.g. carpentry, crafts, etc.), rental services and 'other'. Food retail related

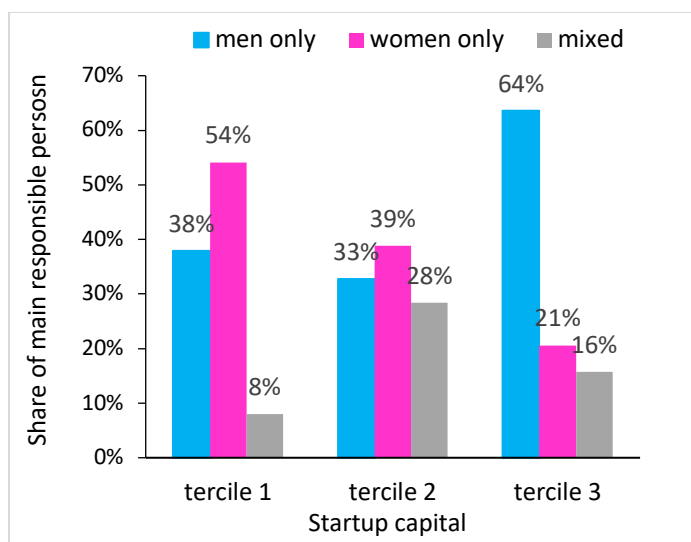
businesses, such as dry good shops and selling snacks or drinks, are the most common types of non-farm enterprise (27%), followed by trading, rental services and 'other' (17% each) (Figure 4).

Similar to casual work and salaried employment, while men and women operate NFE in roughly equal numbers, there is a high degree of gender differentiation in the specific activities performed. Women are most likely to be the main person responsible for food retail, trading and food processing enterprises, whereas men dominate in rental services, and are more likely than women to be responsible for 'skilled' and 'other' types of enterprise. Men and women assume joint responsibility for only 18% of enterprises. Joint operation is most common in food retail businesses and, to a lesser extent, in trading.



**Figure 4: Share of main responsible person in the types of NFE**

We further disaggregate non-farm enterprises into terciles based on the amount of start-up capital used in their establishment (adjusted for inflation), as a proxy for business size. Women's enterprises often use less startup capital than men's - 54% of businesses in tercile 1 are owned by women, whereas 64% of enterprises in tercile 3 are owned by men (Figure 5). This finding implies that men are more likely operate larger (and perhaps more lucrative) businesses than women.



**Figure 5: Main person for responsible operating NFE, by startup capital terciles and gender (%)**

Incomes from agriculture and non-farm employment are the main sources of startup capital for NFE, reported as the primary source of startup capital for approximately one-third of businesses each (Table 4). Loans from informal sources rank third in terms of importance (12%). Women more often use income from non-farm employment (20%) and loans from informal sources (9%) as startup capital, while men are more likely to report using income from agriculture (19%) or not needing any startup capital (9%).

Banks, microfinance, and remittances are often considered important sources of investment in NFE. Yet, formal loans and remittances were reported as the main source of startup capital in only 1% and 2% of cases, respectively, for NFE in our study area. In contrast, the dominance of agriculture and non-farm work in sources of startup capital for NFE is indicative of strong interlinkages between these three sectors in Southern Shan's rural economy.

**Table 4: Primary source of startup capital for NFE, by gender (%)**

Source of startup capital	Primary Source		
	All	Men	Women
Income from agriculture	35	19	16
Non-farm work	33	13	20
Informal loan	12	3	9
Remittance/migration	2	0	2
Sale of assets	2	2	0
Formal loan	1	0	1
Other	2	1	1
No startup capital needed	14	9	5

Most NFE operate throughout the year, although to a lesser extent in the case of skilled self-employment and rental services: food retail (73%), food processing (80%), trading (71%), other enterprises (64%), skilled (48%) and rental services (35%). Rental services, such as renting out machinery for agriculture or transportation, operate most in May and June, at the onset of the monsoon season.

Median yearly incomes generated by NFE are quite modest, at MMK 420,000 (\$310). This is less than the average income earned from casual agricultural labor, of MMK 504,000 (\$373). Food processing is the most profitable NFE, followed by 'other' and rental services (Table 5). Only 21% of NFE hire any labor. 'Other' enterprises are most likely to hire labor (36%), followed by rental services (28%), skilled self-employment (24%) and trading (24%) (Table 5).

**Table 5: Income and hired labor use, by NFE type**

Type of enterprise	Median Income (MMK/year)	Net Hiring (%)	Businesses labor
Food retail	360,000	10	
Food processing	660,000	11	
Trading	210,000	24	
Skilled	360,000	24	
Rental services	450,000	28	
Other	480,000	36	
Total	420,000	21	

## 5. Natural resource extraction (NRE)

Natural resource extraction activities are very common among households in our study area, but are overwhelmingly for home consumption. Firewood and wild foods are collected by 71% and 52% of households, respectively, while 32% of households cut bamboo and 20% catch fish. The large numbers of households taking part in these activities suggests that they may make important contributions to food/nutrition security and wellbeing. However, only 2% of households engage in natural resource extraction on a commercial basis. Catching wild fish and collecting wild foods are the most common of these activities performed for sale (Table 6).

**Table 6: Share of households engaged in different types of NRE for home consumption and sale**

Activity	For home consumption	For sale
Collecting firewood	71.3	0.4
Collecting wild foods	51.8	1.8
Cutting bamboo	32.4	0.5
Fishing	20.2	1.9
Hunting	8.2	0.03
Extracting timber	5.5	0.2
Collecting leaves	4.8	0.3
Other	1.9	1.2

Note: Households and individuals can conduct multiple off-farm activities

## Conclusions

Our study reveals the following key findings on off-farm employment and work in Southern Shan State.

1. Off-farm employment constitutes a key component of rural livelihoods. Sixty-two percent of households in our study area combine farming with non-farm employment income, while 14% rely solely on off-farm income. Off-farm work is particularly important for households with little or no land.

2. Agriculture is critical for off-farm employment. The majority of casual laborers (79%) are engaged in agricultural work. Women account for the majority of agricultural wage workers.
3. Men and women participate in each of the main categories of off-farm work in similar numbers, but tend to specialize in different activities within each category of work.
4. We find evidence of a gender wage gap. This is smaller than in other areas of Myanmar for casual agricultural labor, but larger in the case of non-farm casual labor.
5. Non-farm enterprises are common, but most generate quite modest incomes and employ little hired labor.
6. The share of men and women who operate non-farm enterprises are roughly equal. Yet, there is gender differentiation in the type of business activities and women more often start their enterprises with no or a relatively small amount of start-up capital compared to men.
7. Income from farming and casual labor are the main sources of startup capital for non-farm enterprises. Remittances and formal sources of credit are rarely to fund investments in these businesses.

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