



07.

ANALYSING LABOUR FORCE PARTICIPATION AND EMPLOYMENT

Labour market activities are an important source of income for the vast majority of households in Myanmar. The quantity and quality of employment therefore play a central role in household welfare and in translating growth into poverty reduction. This chapter analyses labour force participation, sectoral participation, and the wages of the labour force in 2017, particularly across different subpopulations. It also looks at correlates of labour force participation and wages and concludes by examining labour underutilisation in Myanmar.

Labour force participation

About two out of three individuals of working age in Myanmar are in the labour force, yet significant differences in participation exist by residential area.³⁵ Based on a seven-day reference period, the labour force participation rate in 2017 is 64.8 percent (Table 7-1 and Box 7-1 for definitions). A 12-month definition of labour force participation offers more opportunities to be employed over a longer reference period and thus yields a higher participation rate (68.5 percent). Rural inhabitants are 9.1 percent more likely than urban inhabitants to be in the labour force in the past week and 11.8 percent more likely to participate in the labour force in the past 12 months. Participation in the labour force also varies by state/region (Figure 7-1): Based on a seven-day reference period, Shan State has the highest labour force participation (73.1 percent), while Kayin State and Mon State have the lowest (50.6 percent and 52.8 percent, respectively).³⁶

Women are significantly less likely than men to be in the labour force, reflecting gender roles in Myanmar. The labour force participation rate is 54.3 percent among working-age women and 77.1 percent among working-age men, making men 42.2 percent more likely to participate in the labour force (Table 7-1). Many working-age women outside of the labour force (53.4 percent) report housework as their main activity. On the other hand, the retired/elderly and full-time students make up the majority of men outside the labour force (63.0 percent). Only 2.7 percent of men out of the labour force report housework as their main activity. This divergence between men and women reflects the continuing norm in Myanmar of women mainly being responsible for housework and tending to children and elderly dependents (Asian Development Bank, 2016).

Box 7-1 Key labour force definitions and indicators used in this report

The labour force indicators used in this report are based on contemporary definitions from the 2015 Myanmar Labour Force Survey (LFS). These definitions stem from the framework proposed by the 19th International Conference of Labour Force Statisticians (ICLS-19) and differ from those stipulated by the 1985 Labour Statistics Convention, on which previous labour force statistics in Myanmar were based. The Key Indicators Report (CSO, UNDP, and WB, 2018) provides an explanation of differences between these old and new definitions.

Definitions

Working age: Persons 15 years old and above in accordance with national definitions, the working age population does not have an upper age limit. This subpopulation is the total number of potential workers in the economy.

³⁵ For urban/rural and male/female labour force participation rates disaggregated by age, see the Key Indicators Report (CSO, UNDP, and WB, 2018a).

³⁶ State/Region rankings based on a 12-month reference period are similar.

Employed: Persons who, during the reference period, either i) worked at least one hour in any activity to produce goods or provide services for profit or pay, or ii) were temporarily absent from their jobs, for example due to maternity leave or ill health.

Unemployed: Persons who i) were not employed or self-employed for profit or pay during the reference period; ii) are available to work within the following two weeks; and iii) actively sought employment or self-employment in the past 30 days.

Labour force: Persons who are either employed or unemployed during the reference period.

Out of labour force: Persons who are neither employed nor unemployed.

Indicators

Labour force participation rate: The labour force expressed as a percentage of the working age population.

Employment rate: Employed persons as a share of the labour force.

Unemployment rate: Unemployed persons as a share of the labour force.

Table 7-1

Summary of key labour force indicators, by residential area and gender, 7-day recall (in percent)

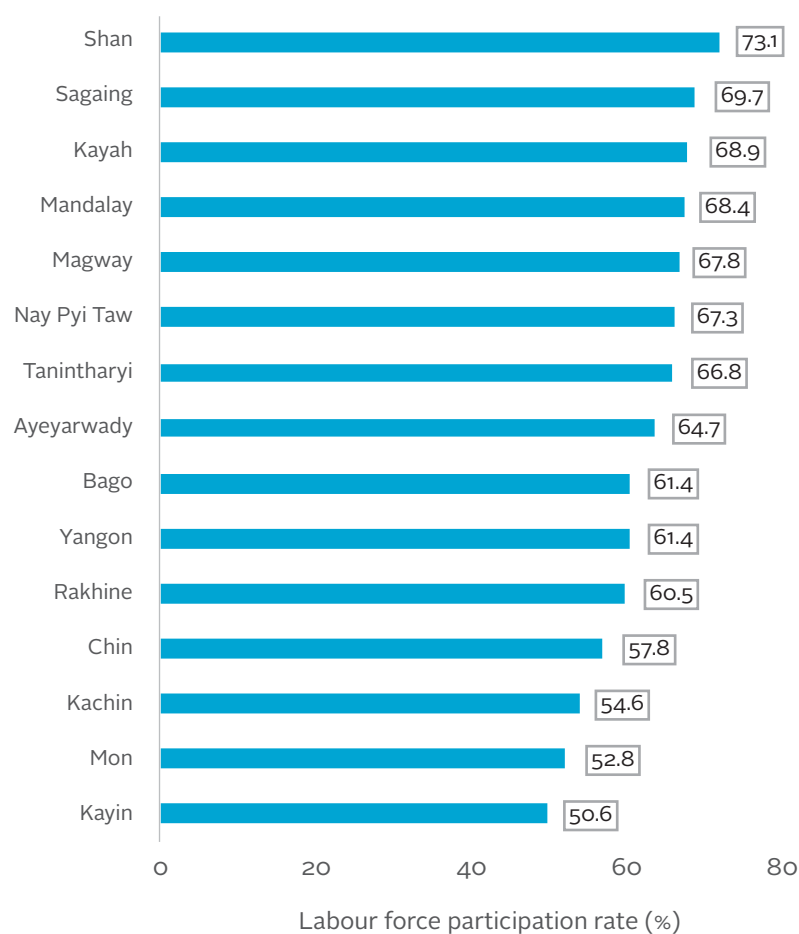
	Union	Urban	Rural	Female	Male
Total population	100.0	100.0	100.0	100.0	100.0
Children (aged 0-14)	26.5	22.6	28.1	25.0	28.3
Working age (aged 15+)	73.5	77.4	71.9	75.0	71.7
Working age population (aged 15+)	100.0	100.0	100.0	100.0	100.0
Labour force	64.8	60.9	66.4	54.3	77.1
Employed	63.4	59.1	65.3	53.1	75.6
Unemployed	1.4	1.8	1.2	1.2	1.6
Out of labour force	35.2	39.1	33.6	45.7	22.9
Potential labour force	4.9	5.6	4.7	6.4	3.2
Other inactive	30.3	33.5	28.9	39.3	19.7
Employment rate	97.9	97.0	98.2	97.8	97.9
Unemployment rate	2.1	3.0	1.8	2.2	2.1
Total population ('000)	47,401	13,524	33,876	25,099	22,301
Working age population ('000)	34,827	10,467	24,360	18,832	15,994

Notes: Labour force participation and employment are based on ICLS-19 definitions. The 2017 MLCS only includes the population living in conventional households.

Source: 2017 MLCS

Figure 7-1

Labour force participation rate, by state/region, 7-day recall (in percent)



Notes: Labour force participation and employment are based on ICLS-19 definitions.³⁷ The 2017 MLCS only includes the population living in conventional households.

Source: 2017 MLCS

Working-age individuals in the wealthiest quintile are significantly less likely to participate in the labour force. The average seven-day labour force participation rate among those in the top welfare quintile is 62.2 percent, 3.3 percentage points lower than the rest of the working-age population. The wealthiest quintile is also 4.4 percentage points less likely to participate in the labour force at any point over the course of a year. Unlike poorer households, those in the top quintile may not require as many members to work if the breadwinner of the household earns enough to provide for the entire household.

37 ILO Conference Resolution concerning statistics of work, employment, and labour underutilisation https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_230304.pdf

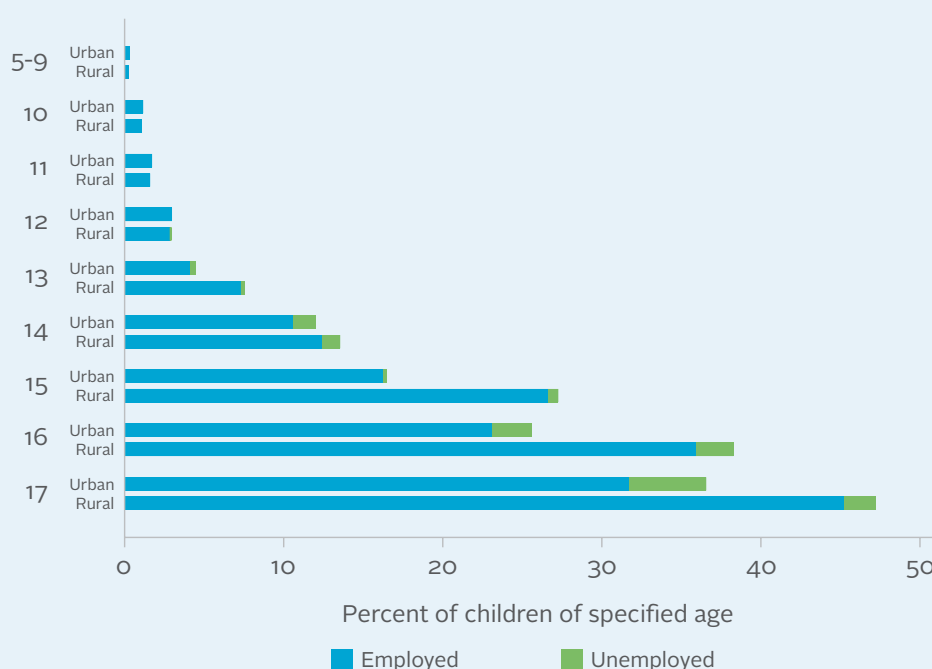
Box 7-2 Child labour in Myanmar

As of 2017, the child labour force participation rate is 10.2 percent. The 2015 LFS defines child labour based on an age group of 5 to 17 years old, which covers standard school-going age in Myanmar. Labour force participation among children aged 5 to 11 years old is almost negligible (0.57 percent). Given the high primary enrolment rates in both urban and rural areas in Myanmar, low participation in the labour force is to be expected for this age group (Chapter 3 on education). But the labour force participation rate increases with age, and among children 12 to 17 years old, the labour force participation rate is significantly higher at 20.4 percent. The labour force participation rate among boys (11.3 percent) is slightly higher than it is for girls (9.1 percent), reflecting higher tendencies for boys to drop out of school.

Child labour force participation is 23 percent higher in rural areas than in urban areas. In general, rural children are more likely to be in the labour force, but an urban-rural differential in the labour force participation rate appears only after primary-school age, namely age 12 (Box 7-2 Figure 1). Ages 15 to 17 exhibit the largest urban-rural gap in labour force participation (Box 7-2 Figure 1). Shan State, Sagaing Region, and Yangon Region have the highest rates of child labour force participation.

Box 7-2 Figure 1

Child labour force participation rate by residential area and age, 7-day recall (in percent)



Notes: Labour force participation and employment are based on ICLS-19 definitions. Child labour is based on an age group of 5 to 17 years old.
Source: 2017 MLCS

Poorer children aged 5 to 17 are more likely to be in the labour force. In the poorest consumption quintile, 15.0 percent of children and 31.2 percent of children aged 12 to 17 participate in the labour force. These rates are respectively 2.3 times and 2.6 times higher than they are in the wealthiest quintile.

Correlates of labour force participation

Being married and having young children are associated with a lower likelihood of being in the labour force for women, but not for men.³⁸ Controlling for individual, household, and geographical characteristics, married women are 11.2 percentage points less likely than non-married women to participate in the labour force. On the other hand, married men are 7.8 percentage points more likely than non-married men to be in the labour force. Moreover, women living with children five years old or younger are on average 9.0 percentage points less likely to participate in the labour force, while both men with and without young children are equally likely to be in the labour force. These differences further substantiate reports of diverging gender roles in Myanmar³⁹: Women are primarily responsible for looking after young children and tending to other housework, while men primarily are accountable for working outside the household.

Labour force participation increases with educational attainment and is highest among those who have reached university. Relative to those with no schooling, individuals who have reached primary school or higher generally have a greater likelihood of being in the labour force. The exception is among the working-age population who were still of school age at the time of the survey, namely those 15 to 22 years old. In general, individuals in this age group are less likely to be in the labour force relative to those aged 23 to 59, and more likely to be full-time students, particularly if they have already reached high school or university. The relationship between educational attainment and labour force participation therefore would be more accurately depicted by looking at the population beyond standard school age or those above 22 years old. When considering this population, those who have reached high school and university are respectively 5.1 and 18.2 percentage points more likely than those who have no education to participate in the labour force.

Only at the university level are women and men equally likely to participate in the labour force relative to those with no schooling. For all other levels of educational attainment, men are more likely than women to be in the labour force compared to their counterparts with no education, controlling for other characteristics. As shown in chapter 6, higher levels of education are associated with larger incurred costs. However, higher education is also associated with significantly larger returns, as shown in the section below on wages. Thus, individuals, especially women, who continue to tertiary education may be more motivated than those with less schooling to participate in the labour force to make up for their incurred and foregone costs and/or to enjoy high returns on their educational investment. For some women, high returns seem to be enough to overcome the need to do housework or tend to dependents at home: In 2017, women who have reached university education or higher are significantly more likely to participate in the labour force relative to women with lower educational attainment.

The disabled are less likely to participate in the labour force. Controlling for other individual, household, and geographical characteristics, those who are reported having a mental or physical disability are 25.2 percentage points less likely to be in the labour force. Men and women with disabilities are similarly less likely than their counterparts without disabilities to participate in the labour force, yet disabled men are still 10.9 percentage points more likely to participate in the labour force relative to disabled women.

³⁸ Besides gender, residential area, and household welfare, there may be other factors influencing whether an individual participates in the labour force. This section uses a probit model to identify significant predictors of labour force participation for working-age men and women controlling for other individual and household characteristics, as well as factors specific to states/regions. See Annex G Table G-1 for results of the regressions.

³⁹ See, for example, Asian Development Bank (2016).

Sectoral participation and occupation⁴⁰

Table 7-2

Sector of primary job, by residential area and gender, 12-month recall (in percent)

	Union	Urban	Rural	Female	Male
Agriculture, forestry, fishing	51.3	9.6	67.1	49.8	52.6
Industry	16.6	25.3	13.4	13.0	19.7
Mining	0.8	0.6	0.8	0.2	1.2
Manufacturing	9.4	15.2	7.2	11.3	7.8
Utilities	0.1	0.3	0.1	0.1	0.2
Construction	6.3	9.2	5.3	1.4	10.6
Services	32.1	65.1	19.5	37.3	27.7
Wholesale and retail trade	14.4	28.4	9.1	20.2	9.5
Transportation, food services, information	7.0	14.4	4.2	4.6	9.1
Financial and professional services	1.0	2.9	0.3	1.0	1.0
Public administration	1.0	2.7	0.4	0.7	1.2
Education, health, social work	3.3	6.1	2.2	5.2	1.6
Other	5.4	10.6	3.4	5.5	5.2

Notes: Labour force participation and employment are based on ICLS-19 definitions. Sector classifications are based on the ISIC-o8.

Source: 2017 MLCS

In 2017, more than half of the employed population work in agriculture and allied activities in their primary job. Among those who are employed at any point over a 12-month reference period, two out of three rural inhabitants work in agriculture, while just one out of five urban inhabitants do so (Table 7-2). Despite the relatively low share of urban workers employed in agriculture, the national average is driven by a large rural population share, particularly among those who are employed (72.5 percent). Agricultural employment is strongly associated with characteristics of informal employment⁴¹: Less than one percent of those working as agricultural labourers receive pension from their employers and only 5 percent receive paid leave. In comparison, 15 percent and 40 percent of waged employees in industries and services, respectively, enjoy paid leave. Of those employed in the agricultural sector, nearly a quarter (23.8 percent) are individuals working without pay in a household or family enterprise – almost three times the share among those working in other sectors (8.1 percent). While these workers contribute to the productive activities of the household, they do not bring in any independent income. Agricultural employment is thus less likely to be considered formal and independent of household activities.

⁴⁰ Due to the high degree of seasonality in some labour market activities, this section looks at sectoral participation and occupation of the primary job over a 12-month reference period. Sector classifications are based on the 2008 International Standard Industrial Classification (ISIC-o8), and occupation classifications are based on the 2008 International Standard Classification of Occupations (ISCO-o8).

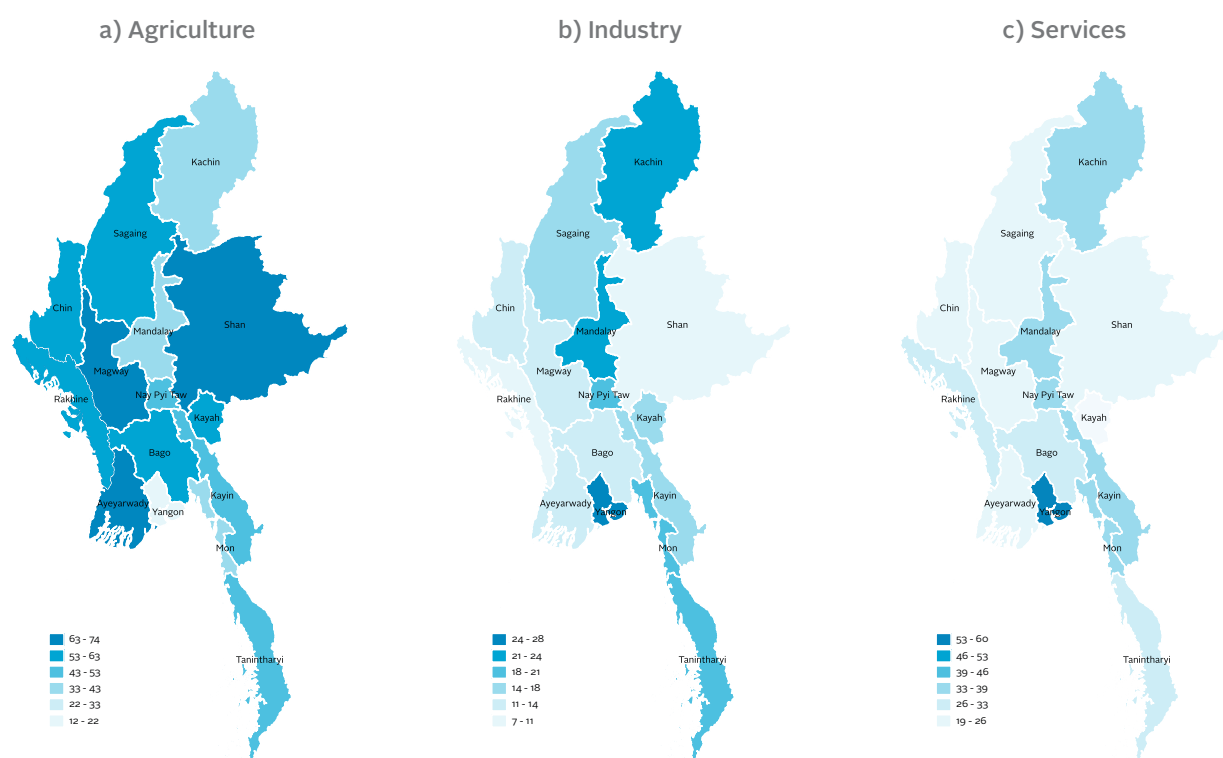
⁴¹ The 2017 MLCS does not allow an exhaustive definition of informal employment that is aligned with the definition recommended by the ICLS-19 or the 2015 Myanmar LFS. More specifically, it is not possible to fully identify informal sectors of employment, which would result an underestimation of informality in the labour force. Informality is explored in this chapter in terms of receipt of pensions or paid leave for employees (based on 7-day recall) and whether one works as an unpaid contributing household worker.

Employment in most states/regions remains largely agricultural, although there is more variation in sectoral participation in some places. In two-thirds of states/regions, agricultural activities account for more than half of employment. Shan State, Magway Region, and Ayeyarwady Region, which have some of the largest rural population shares, have the highest shares of employed individuals working in agriculture (more than 64 percent) (Map 7-1). On the other end of the spectrum, Yangon Region has only 12.1 percent of employed individuals working in agriculture. Services make up the majority (60.2 percent) of employment in Yangon Region, with a quarter of employed individuals working in wholesale or retail trade.

Sectoral participation differs by gender. Most men and women work in the agricultural sector. However, employed men are 51.5 percent more likely than employed women to work in the industrial sector (Table 7-2), particularly in construction which typically is characterised by a high level of physical activity. On the other hand, employed women are 34.7 percent more likely to work in services, which is driven primarily by high female employment in the wholesale and retail trade sector and in education, health, and social work.

Map 7-1

Sector of primary job, 12-month recall (in percent)

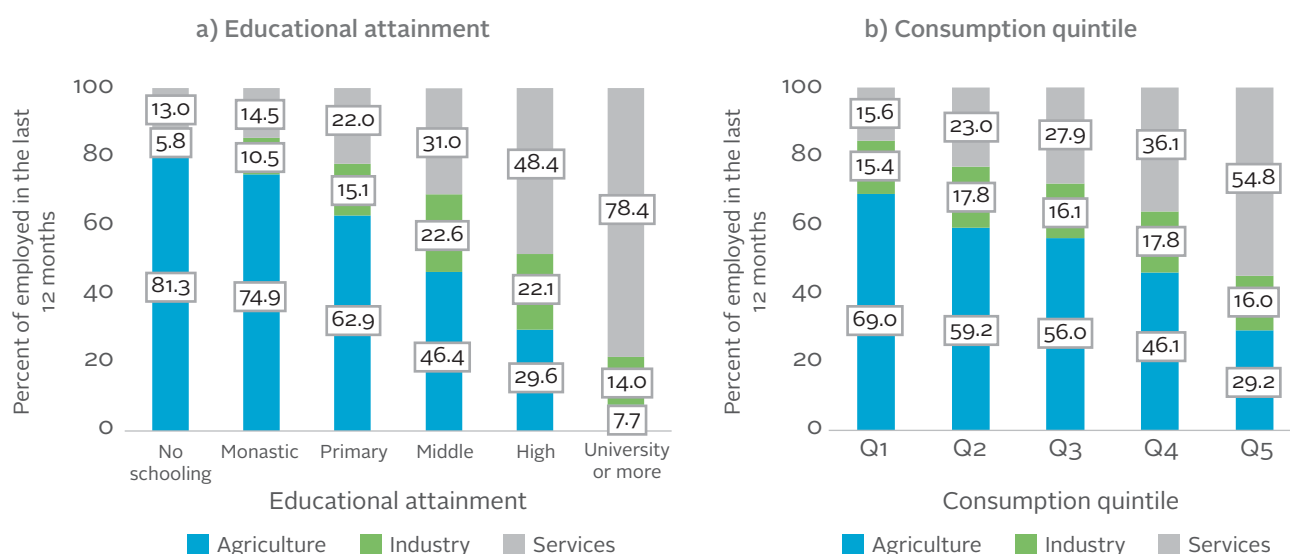


Notes: Labour force participation and employment are based on ICLS-19 definitions. Sector classifications are based on the ISIC-o8.
Source: 2017 MLCS

Employment in agriculture is associated with lower educational attainment and lower welfare, while employment in services is associated with higher education and higher welfare. Compared to employment in agriculture, employment in services and industry is associated with more education. Individuals who have high school education or higher are 3.7 times and 6.0 times more likely than those with no schooling to work in services, respectively (Figure 7-2a). Most individuals with no schooling are employed in agriculture (81.3 percent). Within the services sector, employment in education, health, or social work is almost exclusively composed of individuals who have reached high school or higher (87.8 percent). In addition, poorer individuals are more likely to be employed in agriculture and less likely to work in services than those who are better off.

Figure 7-2

Sector of primary job, by educational attainment and consumption quintile, 12-month recall (in percent)



Notes: Labour force participation and employment are based on ICLS-19 definitions. Sector classifications are based on the ISIC-o8. Q1 to Q5 represents per adult equivalent consumption quintiles with Q1=poorest quintile and Q5=wealthiest quintile.

Source: 2017 MLCS

More than a third of employment options in any sector are considered elementary or unskilled occupations. According to the ISIC-o8, elementary occupations include agricultural and industrial labourers, cleaners and other household helpers, mobile and stationary street vendors, and other occupations that require relatively little skill. More than 42 percent of the employed labour force work in these occupations, and the percentage is highest among those working in the agricultural sector (48.5 percent). The remaining half of those employed in agriculture are subsistence or market-oriented farmers. Women are 22.7 percent more likely than men to have elementary occupations, and those with lower educational attainment and welfare are significantly more likely to be employed in these professions.

Wages⁴² and factors explaining wage differences

Four out of ten of the employed population are wage-earning employees. Another 35.3 percent are own-account owners who do not have regular employees, and about 10 percent are operators of a family business or are employers with regular employees (Table 7-3). Wage-earners have an individual source of income while employers, own-account owners, and operators of a family business likely have the most command over profits earned from their enterprises. On the other hand, those who assist in a family business without remuneration likely do not have much bargaining power in the household, since they independently do not bring in income.⁴³ Among those employed, 16.1 percent help out without pay in a family enterprise. Women are more than twice as likely as men to engage in such employment, suggesting that a greater share of employed women do not have an independent source of income.

42 The wages used in this section combine cash wages and the reported value of in-kind wages and are restricted to wages earned domestically unless noted otherwise. Only wages earned in the primary job during a 12-month reference period are reported.

43 See for example Qian, 2008, which shows that increasing women's income increases their bargaining power within the household, and Kabeer, 2002, which documents the tangible changes that women encounter inside and outside of households due to increased opportunities for waged employment.

Table 7-3

Position in primary job, by residential area and gender, 12-month recall (in percent)

	Union	Urban	Rural	Female	Male
Paid employee in public sector	4.1	8.2	2.5	5.0	3.3
Paid employee in private sector	35.3	42.1	32.7	31.7	38.4
Employer with regular employees	2.9	4.1	2.4	1.5	4.1
Own account owner	35.3	31.8	36.5	30.4	39.3
Operator of family business	6.3	3.4	7.3	8.8	4.1
Assisting in family business	16.1	10.1	18.4	22.6	10.7
Other	0.1	0.1	0.0	0.0	0.1

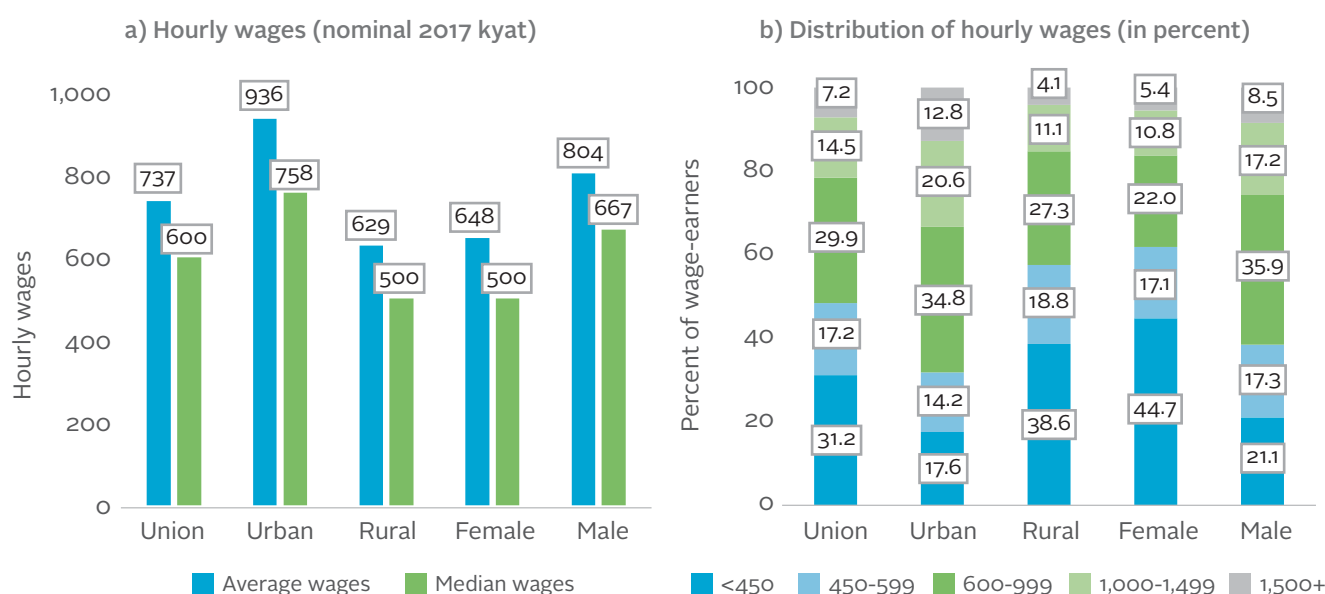
Notes: Labour force participation and employment are based on ICLS-19 definitions.

Source: 2017 MLCS

In 2017, the average hourly wage is nearly 740 kyat, and three out of ten wage-earners earn an hourly wage below 450 kyat. At the time of the survey, minimum wage law in Myanmar stipulates 3,600 kyat per day or 450 kyat per hour for an eight-hour work day⁴⁴ (Figure 7-3). In 2017, one-third of wage-earners who work at least eight hours per day earn below the hourly minimum wage, mostly in informal jobs.⁴⁵ Rural inhabitants are more likely than their urban counterparts to earn less than 450 kyat per hour, and nearly 60 percent of those earning less than the minimum wage are employed in agriculture. Individuals working in the private sector are more likely than those working in the public sector to earn below 450 kyat per hour. However, even in the public sector, 9.5 percent of wage-earners and 12.8 percent of those working eight or more hours a day earn below the hourly minimum wage.

Figure 7-3

Nominal hourly wages in primary job and distribution of wages among wage-earners, by residential area and gender, 12-month recall



Notes: Wages are reported in nominal 2017 kyat.

Source: 2017 MLCS

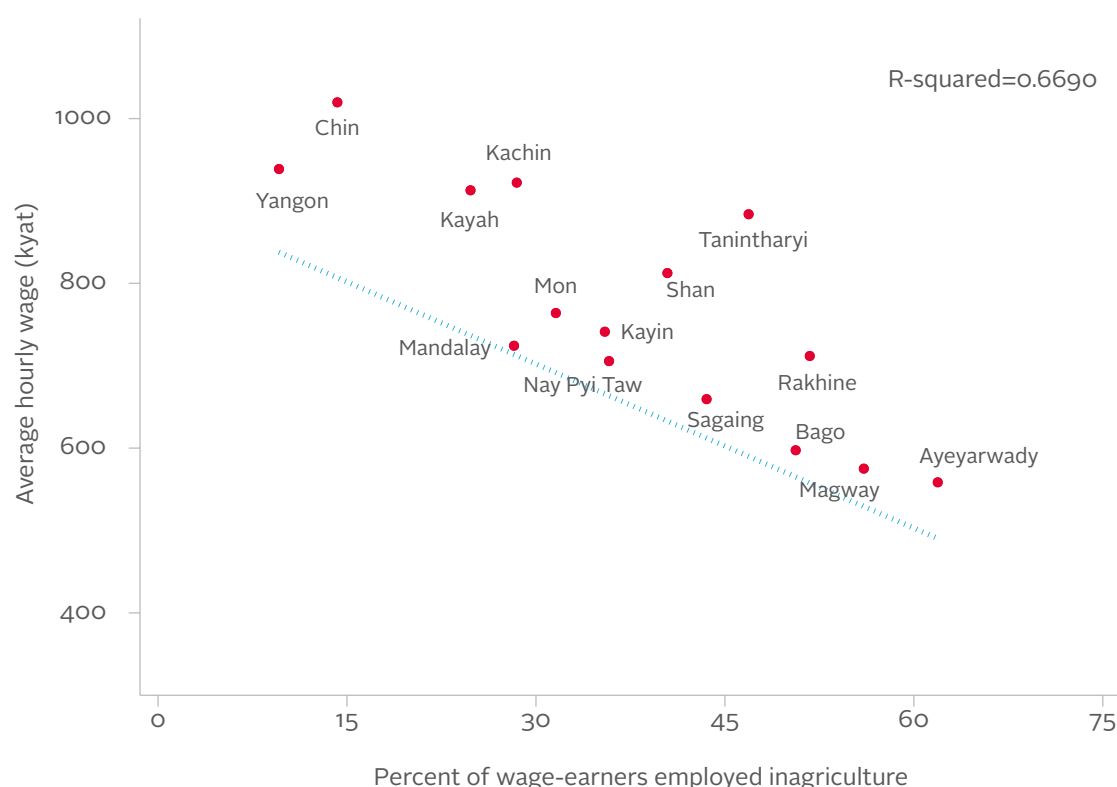
44 After the 2017 MLCS was completed, in May 2018, a new minimum wage law was passed in Myanmar that stipulated 4,800 kyat per day or 600 kyat per hour for an eight-hour work day.

45 Among other conditions, the minimum wage law did not apply to enterprises and institutions that employed 10 or less people. The 2017 MLCS does not ask about the number of employees in one's workplace, and thus does not allow evaluation of the minimum wage law de facto.

Wages are closely tied to the sector of employment: agricultural labour is associated with lower wages compared to employment in industry or services. About half of wage-earners working in agriculture earn an hourly wage below 450 kyat. In comparison, just 17.8 percent and 21.3 percent of wage-earners involved in industrial jobs and services, respectively, earn below 450 kyat. The agricultural sector also has the highest rates of informality and the lowest share of individuals earning wages, as most are either own-account owners or household members helping out on the family farm. These facets of agricultural employment partially explain why wages are on average lower in rural areas and in some states/regions. More than half of rural wage-earners are employed in agriculture, making them more likely to earn lower wages. States/Regions with higher participation in agriculture, particularly waged labour, are also more likely to have lower average and median wages. Indeed, states/regions that have high shares of wage-earners employed in agriculture, such as Ayeyarwady Region, Magway Region, and Bago Region, have low median wages (Figure 7-4).

Figure 7-4

Scatterplot of the share of wage-earners employed in agriculture and nominal median hourly wages in primary job, by state/region, 12-month recall



Notes: Wages are reported in nominal 2017 kyat and are restricted to wages earned domestically.

Source: 2017 MLCS

On average, men earn significantly more than women, even after considering differences in sector of work. In 2017, the average hourly wage among men is about 800 kyat, roughly 24 percent higher than average wages among women (Figure 7-3). Nearly 45 percent of wage-earning women receive less than 450 kyat per hour, while just 21.1 percent of male wage-earners do so. Even after considering differences between men and women in sectoral participation and occupations, women earn about 20 percent less than men. In general, the male-female wage gap is larger in rural areas than in urban areas in both absolute and relative terms.

The male-female wage gap is not explained by education, level of experience, or other individual and area-specific characteristics.⁴⁶ Women and men in the labour force tend to have similar levels of welfare and educational attainment, and have comparable ages. Controlling for these factors therefore does not close the male-female wage gap. It is possible that women select into lower-paying jobs such as agricultural labour depending on where they live or the sector that their household is involved in. However, controlling for residential area and the household's productive activities also does not explain the male-female wage differential.

Greater experience is rewarded with higher wages but at a diminishing rate. Age is a widely-used proxy for experience, as generally individuals who are older have more experience in the labour force. Controlling for each additional year of experience is associated with higher wages, but the percentage increase in wages decreases as one gets older (Table G-2 in Annex G). This means that after a certain age, an additional year of experience will have a negligible or negative effect on wages. Every additional year of experience is more highly rewarded for men than it is for women, but this relationship tapers off more quickly for men than it does for women.

Wage differentials between the uneducated and educated increase with level of educational attainment, although considerable differences exist between men and women. Excluding monastic education, each additional level of education is associated with a larger wage differential. For example, relative to those with no schooling, those who have reached primary school earn 9.5 percent higher wages, and individuals who have reached university earn 78.8 percent higher wages. However, the wage differential between the uneducated and educated only appears in high school for women, while it appears starting in primary school for men. On average, returns to primary, middle, and high school education are significantly higher for men than they are for women. The exception is university education, for which the percentage increase in wages relative to no schooling is 93.8 percent for women and 55.9 percent for men. This suggests that achieving university education closes both the labour force participation gap and the wage gap between women and men.

Possessing an identification card is associated with higher wages. Controlling for other factors, individuals who have an identification card have 7.0 percent higher wages than those who do not. These official documents can determine the type of job that individuals can work in, particularly whether they can work in the formal sector or in formal employment. Moreover, those who possess an identification card may have greater agency to negotiate wages or other benefits.

Labour underutilisation⁴⁷

The labour underutilisation rate may be a more appropriate measure of unmet employment needs in Myanmar in 2017 than the unemployment rate. In 2017, the unemployment rate is just 2.2 percent. The rate is thought to be very low due to the lack of unemployment benefits and the fundamental necessity for much of the population to work in order to meet subsistence (Department of Labour, 2016). Thus, the unemployment rate alone may not provide a comprehensive picture of unmet employment needs in Myanmar. Instead, the labour underutilisation rate is used to estimate the mismatch between labour supply and demand in Myanmar (Department of Labour, 2016). Labour underutilisation is defined using three subpopulations: time-related underemployment, unemployment, and the potential labour force (see Box 7-3).

⁴⁶ This section uses a Heckman selection model to analyse various individual and area-specific characteristics that may explain differences in wages across the labour force, particularly between men and women. A more detailed description of the method employed and the regression results, including the selection equation, can be seen in Annex G.

⁴⁷ This section uses labour force and employment indicators based on a seven-day reference period to accurately estimate labour underutilisation.

Box 7-3 Definitions and indicators of labour underutilisation

Potential labour force: Persons out of the labour force who have indicated interest in employment, but face limitations in availability and/or ability to actively search for a job. Specifically, persons who either i) sought work during the reference period but are not available to work; ii) did not seek work but are available and want to work; or iii) neither sought work nor are available to work but would like to work.

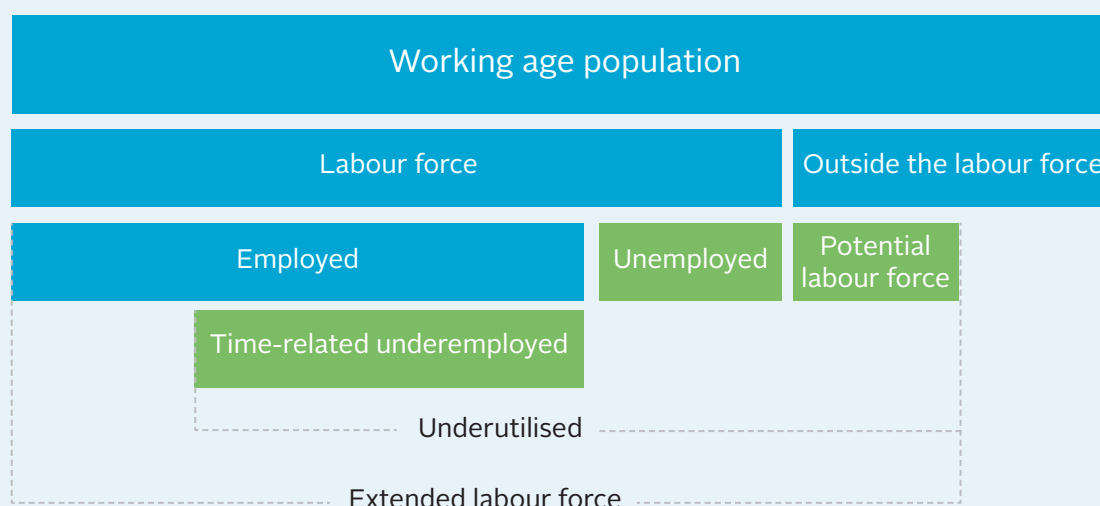
Extended labour force: Persons who are either in the labour force or in the potential labour force.

Time-related underemployment: Employed persons who i) would like to work additional hours; ii) are available to work additional hours; and iii) are working below 44 hours per week, as stipulated by the Myanmar Factory Act and LFS.

Labour underutilisation rate: The sum of underemployed persons, unemployed persons, and the potential labour force, expressed as a percentage of the extended labour force. The labour underutilisation rate captures mismatches between labour supply and demand, indicating unmet needs for employment within the working-age population.

Box 7-3 Figure 1

Definition of extended labour force and labour underutilisation



Note: Definitions come from the 2015 Myanmar LFS and ICLS-19.

In 2017, the average number of hours worked per week is 49 hours. On average, urban inhabitants work 5.4 more hours per week than their rural counterparts. Among all sectors, agriculture is associated with the fewest hours worked per week and the fewest months worked per year. Overall, higher welfare and educational attainment are associated with longer hours worked and higher regularity over the course of the year, suggesting that wealthier and better educated individuals are more likely to be employed in stable jobs rather than casual or seasonal labour. Out of the employed population, 43.4 percent work less than 44 hours per week, and 12.7 percent are in time-related underemployment.

Table 7-4

Labour underutilisation as a share of the extended labour force, 7-day recall (in percent)

	Union	Urban	Rural	Female	Male
Labour underutilisation rate	20.6	19.5	21.0	24.0	17.6
Underemployed	11.5	8.3	12.8	11.4	11.6
Unemployed	2.0	2.8	1.6	2.0	2.0
Potential labour force	7.1	8.4	6.5	10.6	4.0

Notes: ICLS-19 definitions of labour force participation, employment, and unemployment are used.

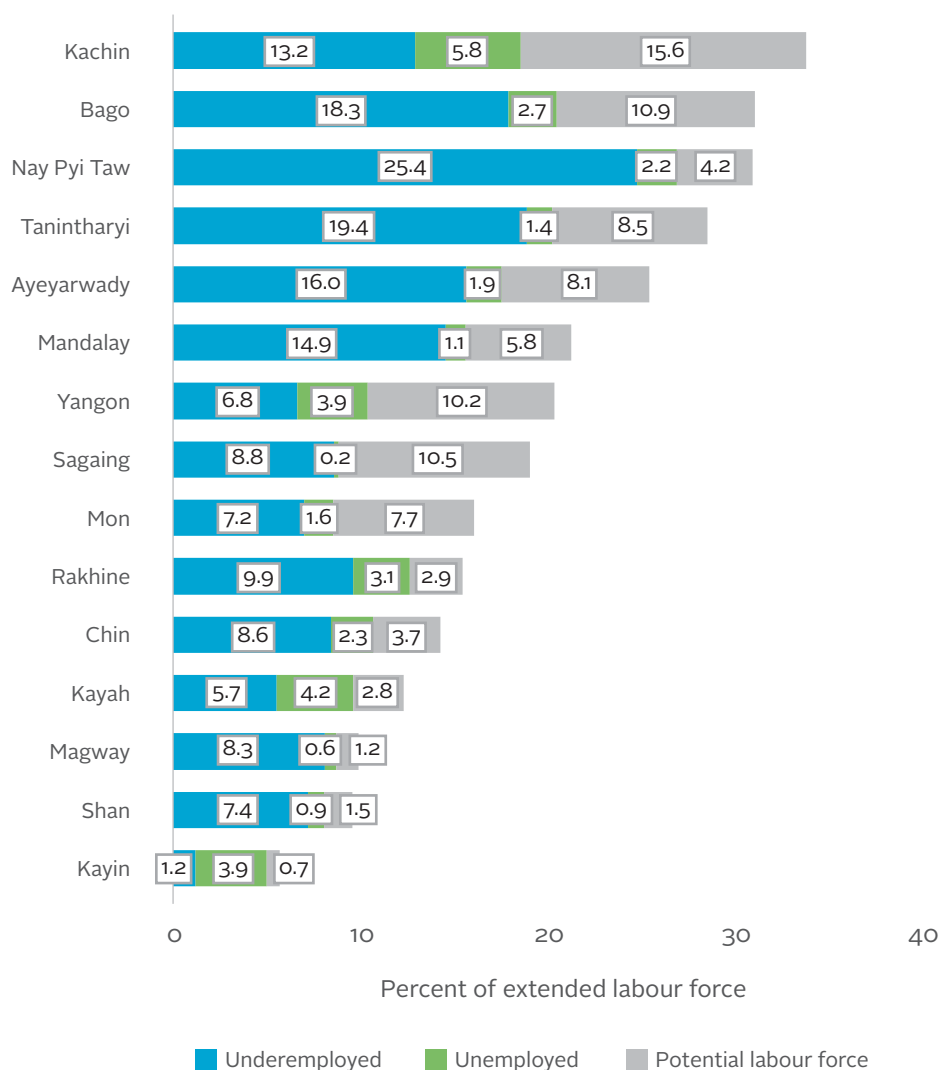
Source: 2017 MLCS

About 5 percent of the working-age population and 14 percent of those outside of the labour force are in the potential labour force. Individuals who did not seek work but are available and want to work account for half of the potential labour force. Another 47.3 percent are those who would like to work but neither sought work nor are available to work. In total, the extended labour force makes up 70 percent of the working-age population. Women in the extended labour force are 2.7 times more likely than men to be in the potential labour force, which implies that women face greater constraints in availability and the ability to search for a job.

The labour underutilisation rate in 2017 is 20.6 percent and is higher among women than men. Due to unmet employment needs, one in five of the extended labour force or 14.3 percent of the working-age population could be contributing more to productive activities in Myanmar (Table 7-4). Time-related underemployment makes up more than half of the underutilized labour force. Compared to urban residents, rural inhabitants are 7.7 percent more likely to be considered underutilized, which is mainly driven by a higher share of the rural extended labour force that is underemployed. In terms of states/regions, Kachin State has the highest labour underutilisation rate (34.6), while Kayin State has the lowest (5.8 percent) (Figure 7-5). Women are also significantly more likely to have unmet employment needs compared to men, mostly due to a larger share of women in the potential labour force.

Figure 7-5

Labour underutilisation rate, by state/region, 7-day recall (in percent)



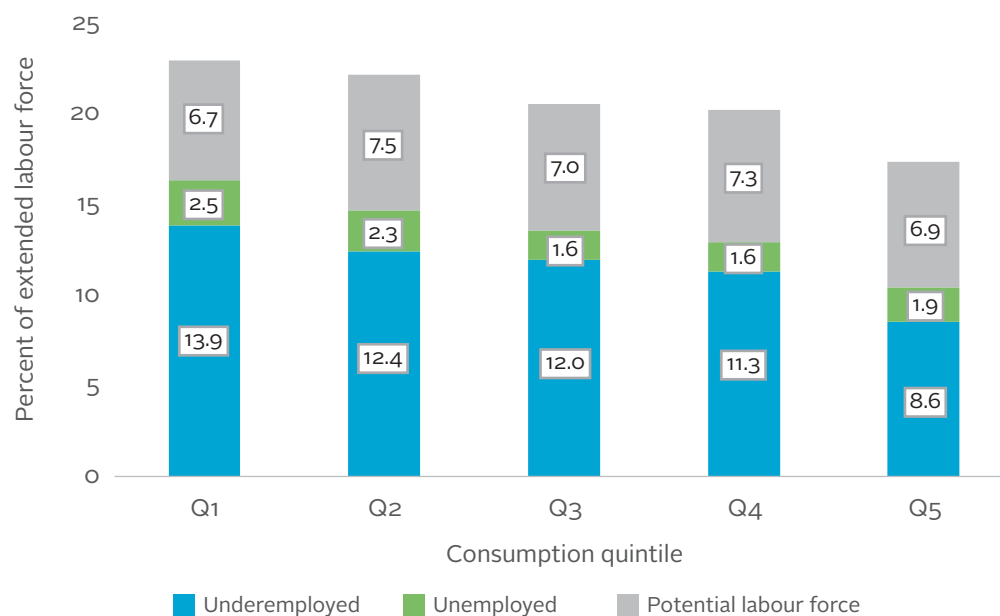
Notes: ICLS-19 definitions of labour force participation, employment, and unemployment are used.

Source: 2017 MLCS

Poorer members of the extended labour force are more likely to be considered underutilized. Individuals with lower welfare are more likely to work less than 44 hours per week. Moreover, among all those who work under 44 hours, poorer individuals are more likely to desire more work and be available to work. Time-related underemployment therefore is higher in poorer quintiles, explaining much of why labour underutilisation is higher among the poor (Figure 7-6).

Figure 7-6

Labour underutilisation rate, by consumption quintile, 7-day recall (in percent)



Notes: ICLS-19 definitions of labour force participation, employment, and unemployment are used. Q1 to Q5 represents per adult equivalent consumption quintiles with Q1=poorest quintile and Q5=wealthiest quintile.

Source: 2017 MLCS

Main takeaways and implications

In 2017, significant differences in labour force participation and labour market activities exist across gender, urban and rural areas, states/regions, educational attainment, and welfare level. Women face significant barriers to labour force participation largely due to housework and the need to tend to children and elderly dependents. Women also generally have lower-paying and lower-quality jobs and are more likely to have unmet employment demand. Education, particularly at the university level or above, has great potential to improve labour force participation and the quantity and quality of employment. Having university education closes both the labour force participation gap and wage gap between men and women. Agriculture is still the most common sector of employment in Myanmar although services make up most of the employment in Yangon Region. Employment in agriculture is associated with lower wages, lower educational attainment, lower welfare, higher underutilisation, and a greater share of individuals working without pay.

These findings have three main implications:

- i. Reducing female responsibilities at home can increase female labour force participation and increase their productive activities. Facilitating access to preschool and early childhood care and development would also be beneficial for the children and increase their future productivity. A better understanding of gender roles in Myanmar could also help define initiatives to give women greater opportunities to participate in the labour force.
- ii. Higher education, especially at the university level and above, can open the door to more formal, secure, and higher-paying jobs. Encouraging higher education can also close the gender gap in wages and increase female participation in the labour force. Higher education can reduce female responsibilities at home, as the opportunity cost to staying at home increases with greater educational attainment.
- iii. The labour force, particularly those in the agricultural sector, and the potential labour force can be better utilized with more employment opportunities. Increasing productivity or developing value-chains in which labourers could work could reduce labour underutilisation. The seasonal nature of agricultural work also contributes to greater labour underutilisation and illustrates the need to support the diversification of livelihoods into non-agricultural activities in rural areas.

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08.

EXPLORING
MIGRATION
PATTERNS

Migration patterns within and across country borders are often influenced by spatial disparities in labour market opportunities (Black, et al., 2005). In Myanmar, differences in employment opportunities and earnings have fuelled both permanent and temporary migration within and across state/region borders (Pattison, et al., 2016). Spatial inequalities in economic opportunities between Myanmar and neighbouring countries such as Thailand, Malaysia, and China have also influenced international migration corridors. This chapter examines internal and international migration corridors and the profiles of different types of migrants, as well as factors contributing to the decision to migrate.

Box 8-1. Definitions of the types of migrants and migration indicators used in this chapter

Permanent migration

Permanent/Lifetime internal migrants – Individuals born in Myanmar who have changed their usual place of residence within Myanmar at least once in their lifetime. Specifically, those who have moved to a township different from their township of birth at any point in their lives. In this chapter, “lifetime migrants” refers to lifetime internal migrants unless otherwise specified.

Recent internal migrants – A subcategory of lifetime migrants. Lifetime migrants who have moved townships in the five years preceding the 2017 MLCS. In this chapter, “recent migrants” refers to recent internal migrants unless otherwise specified.

Temporary migration

Temporary economic migrants – Household members who are reported as being temporarily absent from the household residence for at least one month in the past 12 months¹ due to work in Myanmar, work abroad, or the search for work. In this chapter, “economic migrants” refers to temporary economic migrants unless otherwise specified.

Temporary non-economic migrants – Household members who are reported as being temporarily absent from the residence for at least one month in the past 12 months due to non-economic reasons such as education, health, visiting family, etc. In this chapter, “non-economic migrants” refers to temporary non-economic migrants unless otherwise specified.

Migration indicators

Net migration rate – Difference between the number of migrants entering a state/region and the number of migrants leaving a state/region in a given period, as share of the total current population in the state/region.

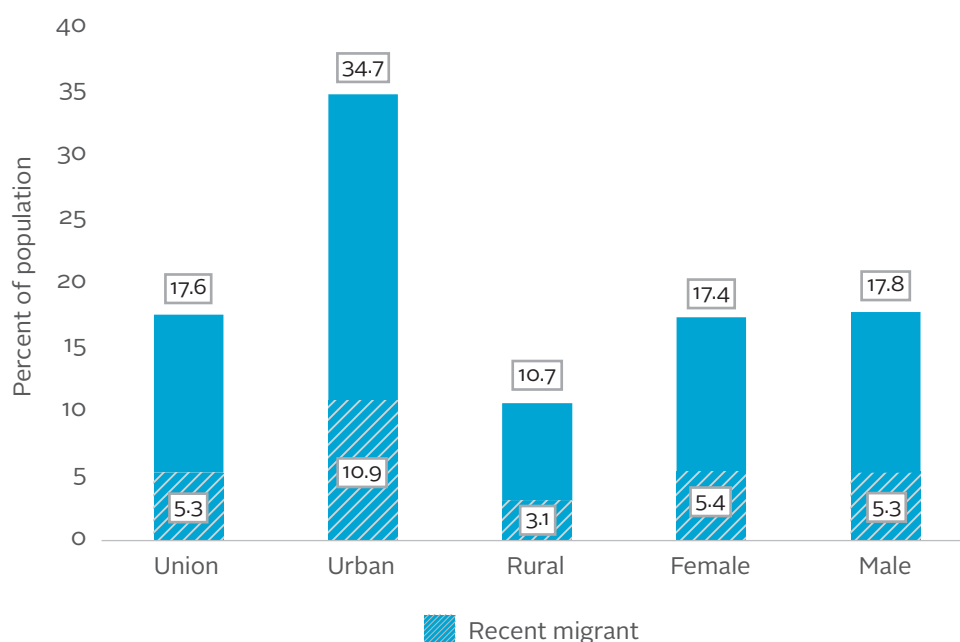
Source: Adapted from Department of Population, 2016. “2014 Census Thematic Report on Migration and Urbanization”

Permanent migration

As of 2017, nearly 18 percent of the population are considered permanent⁴⁸ internal migrants. About 5 percent are recent migrants or moved to their current place of residence between 2012 and 2017 (Figure 8-1). Women and men are equally likely to have moved once in their lifetime or in the past five years.

Figure 8-1

Percentage of population that are permanent migrants, by residential area and gender



Notes: The 2017 MLCS only covers the population living in conventional households. The striped area represents recent migrants, which are a subset of all permanent migrants.

Source: 2017 MLCS

Migration within, across, and to urban areas has dominated permanent migration flows. Almost 35 percent of urban residents are lifetime migrants, which is three times higher than it is among rural residents (Figure 8-1). Given the relatively large rural population, only about half (56.4 percent) of lifetime migrants live in urban areas. However, the share residing in urban areas is significantly higher for lifetime migrants than it is for non-lifetime migrants, the latter being individuals who have never moved townships within Myanmar in their lives. The 2014 Census finds that almost half of both lifetime and recent internal migration has been urban-to-urban migration⁴⁹, while just a tenth has been rural-to-urban migration (Department of Population, 2016). In addition to spatial differences in earnings or employment opportunities, this finding may be explained by greater physical mobility in urban areas, which makes it easier for urban residents to move, especially to neighbouring townships (Black, et al., 2005).

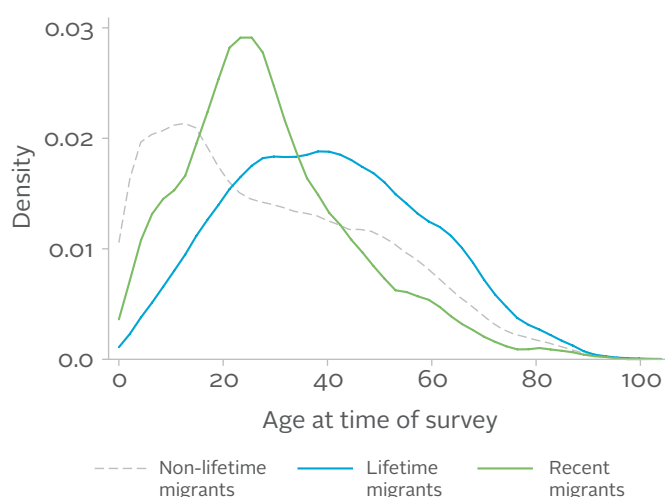
48 In this section, permanent and lifetime terms are used interchangeably as done in 2014 Census Thematic Report on Migration and Urbanization (Department of Population, 2016).

49 The 2017 MLCS did not ask respondents whether their previous residence or their residence at birth was located in an urban or rural area, although it did so for their current residence. It is thus not possible to observe the direction of permanent migration flows in and out of urban or rural areas using the 2017 MLCS.

Most permanent internal migration happens in young adulthood and tends to be a collective event within households, particularly among married couples. On average, lifetime internal migrants are older than non-lifetime migrants. Figure 8-2 shows that children below age 15 comprise a greater share of non-lifetime migrants than they do of recent migrants and all lifetime migrants. On the other hand, recent migrants are more likely to be in the 15 to 35 age group than in any other age group. Taken together, these results suggest that the prime age for permanent migration in Myanmar is early adulthood. Indeed, among all lifetime migrants, more than half moved to their current residence between the ages of 15 and 35 (Figure 8-3). Permanent migration also tends to be a family affair: six out of ten lifetime migrants have moved to their current residence at the same time as at least one other current household member. Among permanent migrant household heads and their spouses, 63.1 percent moved to their current residence together. In addition, lifetime migrants are more likely to be married than non-lifetime migrants, even after considering differences in age and other individual characteristics.

Figure 8-2

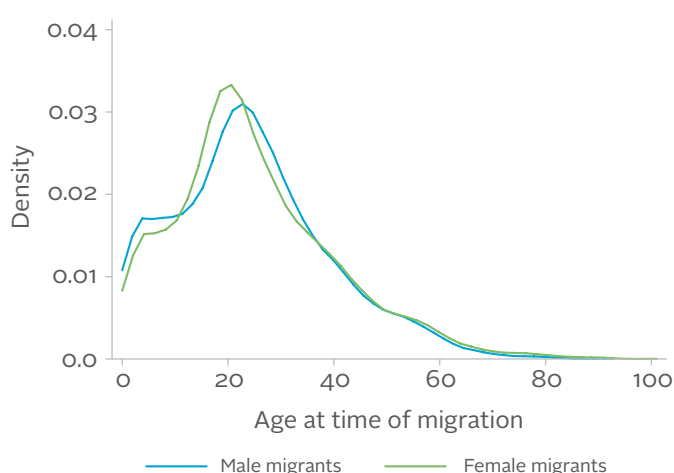
Distribution of ages of lifetime migrants, recent migrants, and non-lifetime migrants



Note: "Non-lifetime migrants" refers to individuals who have never moved townships in their lives.
Source: 2017 MLCS

Figure 8-3

Distribution of ages at the time of last migration

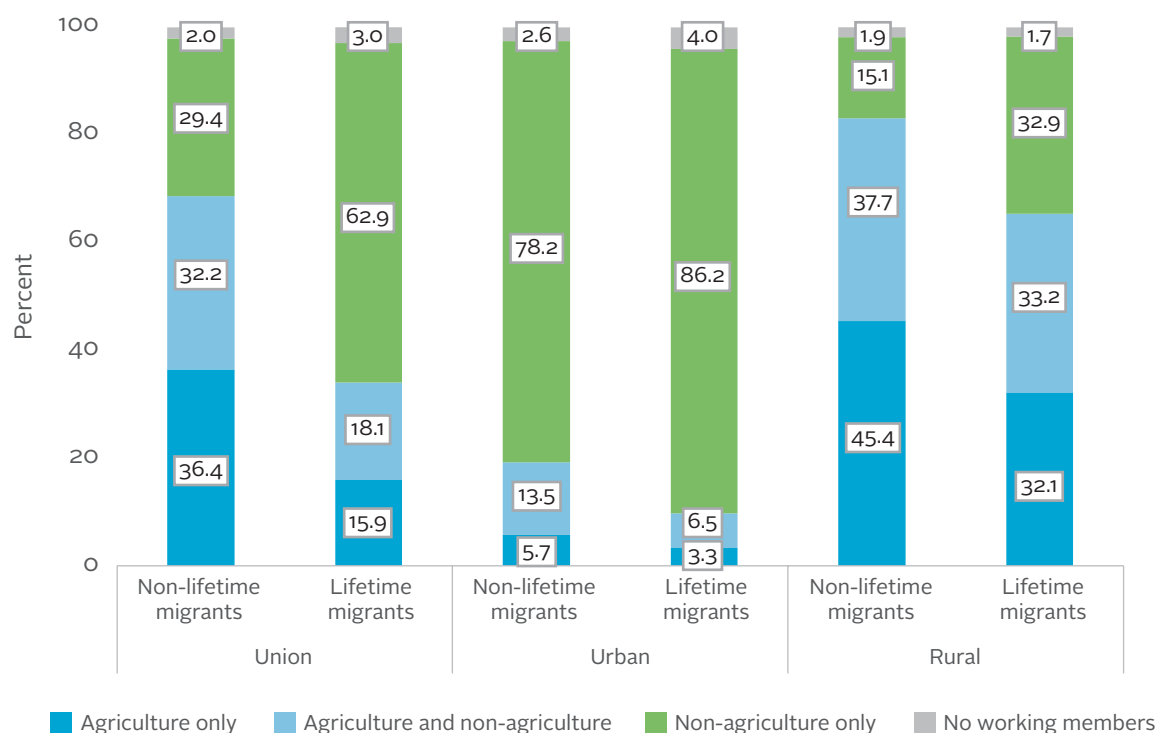


Source: 2017 MLCS

Lifetime migrants are twice as likely as non-lifetime migrants to be members of households engaged exclusively in the non-agricultural sector. Nearly 63 percent of permanent migrants are members of households that participate solely in non-agricultural work, compared to just 29.4 percent among non-lifetime migrants (Figure 8-4). A larger share of non-lifetime migrants are residents of households involved in agricultural activities exclusively or together with some non-agricultural work. These differences in household sectoral participation between lifetime migrants and non-lifetime migrants can be seen in both urban and rural areas, but more so in rural areas (Figure 8-4). Considering that about 15 percent of lifetime internal migration has been urban-to-rural migration (Department of Population, 2016), it is possible that permanent migrants who move to rural areas from urban areas continue working in non-agriculture. However, given that rural-to-rural migration has outweighed urban-to-rural migration, further investigation of differences in sectoral participation is needed.

Figure 8-4

Household sectoral participation among lifetime migrants and non-lifetime migrants, by residential area (in percent)



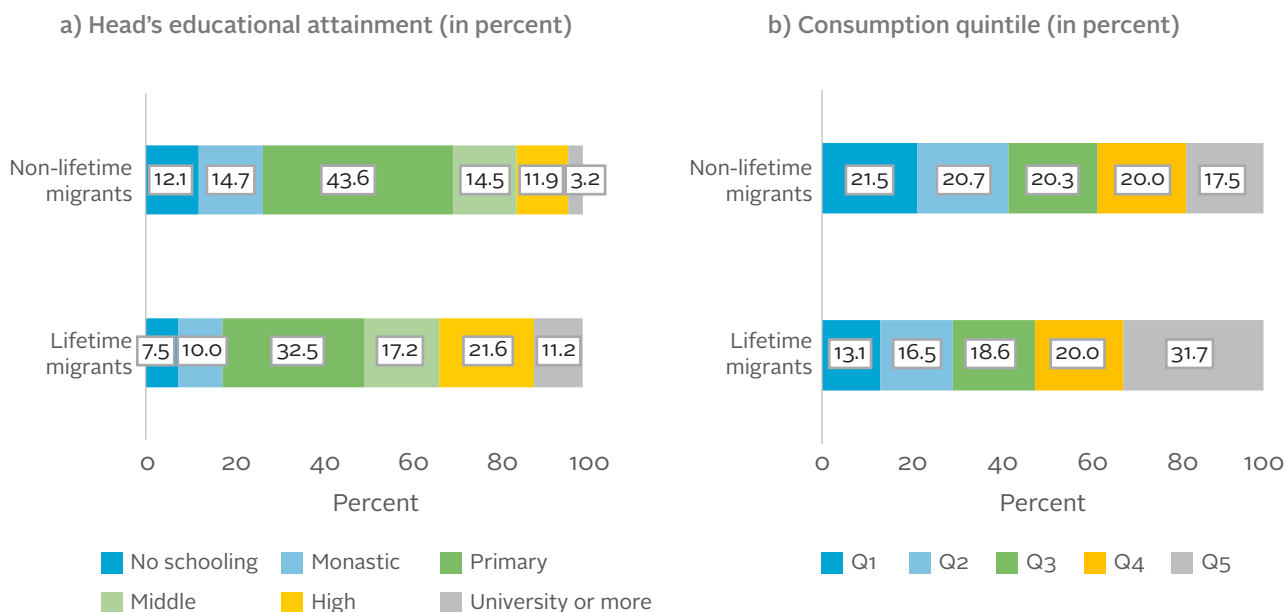
Note: "Non-lifetime migrants" refers to individuals who have never moved townships in their lives.

Source: 2017 MLCS

Permanent migration is associated with higher educational attainment, particularly at the high school and university levels. Lifetime migrants are more likely than non-lifetime migrants to have more educated household heads: 32.8 percent of lifetime migrants have a household head who have reached high school or higher, while just 15.1 percent of non-lifetime migrants do so (Figure 8-5a). Among the population older than the standard age for graduating university (age 20), lifetime migrants are also generally better educated than those who have never moved. As shown in Chapter 3, high school and tertiary education are associated with significantly higher transportation and room/board costs due to a fewer number of schools that provide such education at these levels. Thus, (the desire for) higher education may be a motivating factor for migration, and permanent migration can influence one's educational attainment. For others, the direction of causation may go in the opposite way if educational attainment influences one's ability and decision to migrate. For example, completion of tertiary education may allow individuals to seek higher-paying economic opportunities in a different city or town.

Figure 8-5

Breakdown of household head's educational attainment and consumption among lifetime migrants and non-lifetime migrants



Note: "Non-lifetime migrants" refers to individuals who have never moved townships in their lives. Q1 to Q5 represents per adult equivalent consumption quintiles with Q1=poorest quintile and Q5=wealthiest quintile.

Source: 2017 MLCS

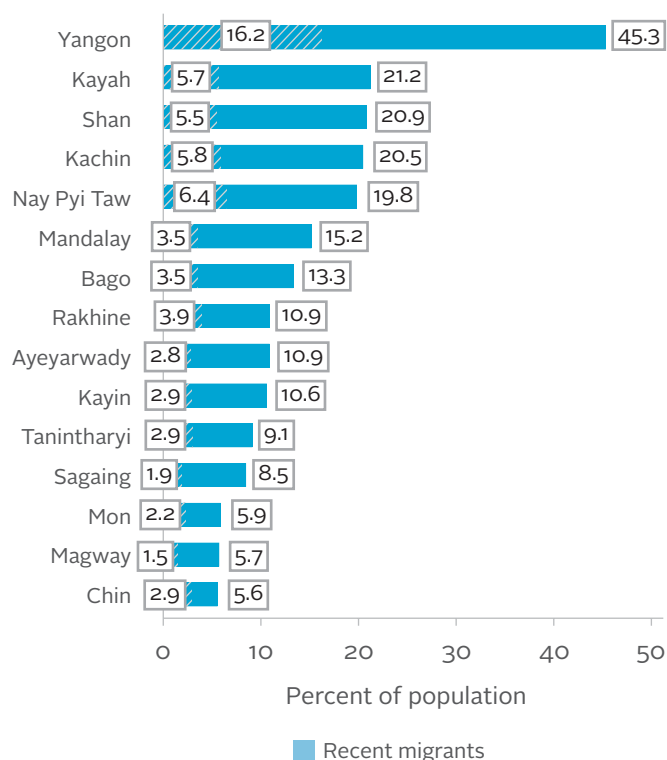
On average, lifetime migrants tend to be better off than non-lifetime migrants, but differences in welfare are largely explained by higher educational attainment and household participation in non-agriculture among wealthier quintiles. Lifetime migrants are 39.1 percent less likely to be poor compared to non-lifetime migrants and nearly twice as likely to be in the top welfare quintile (Figure 8-5b). As shown in Chapters 3 and 7, wealthier households have greater engagement in non-agricultural activities and tend to have better educated members. Thus, controlling for household sectoral participation and the household head's educational attainment accounts for more than 70 percent of differences in welfare between lifetime migrants and non-lifetime migrants.

Internal permanent migration corridors

In both absolute and relative terms, Yangon Region is by far the most attractive destination for lifetime migrants. Almost four out of ten lifetime migrants (38.5 percent) in Myanmar reside in Yangon Region. When considering recent permanent migration, the share is even higher at 45.3 percent. Shan State and Mandalay Region have the second and third highest number of lifetime and recent migrants, respectively. In relative terms, Yangon Region also has the highest number of lifetime migrants (45.3 percent) and recent migrants (16.2 percent) as a share of the local population size (Figure 8-6). A resident of Yangon Region is more than twice as likely as a resident of any other state/region to have moved townships in his or her lifetime.

Figure 8-6

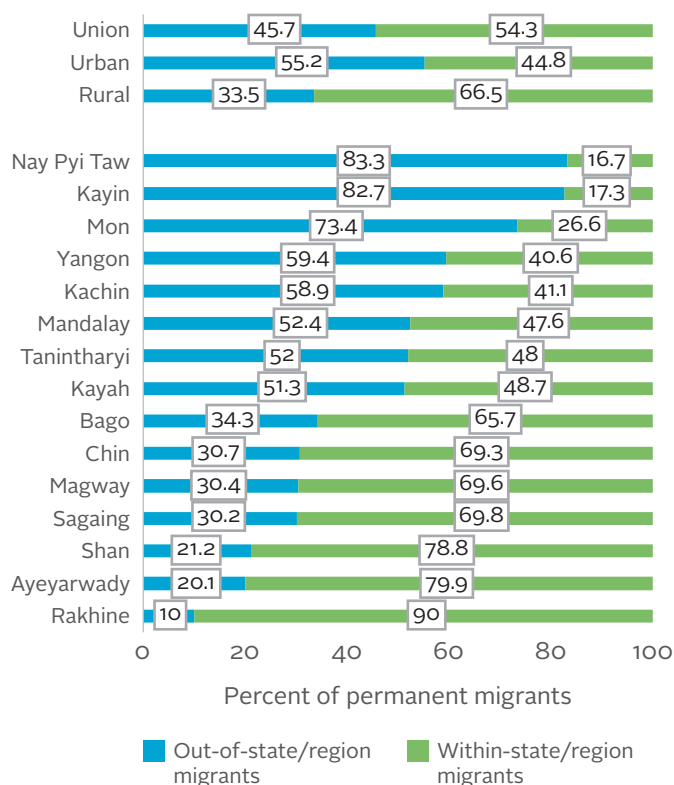
Percentage of population that are permanent migrants, by state/region



Note: The striped area represents recent migrants, which are a subset of all permanent migrants
Source: 2017 MLCS

Figure 8-7

Percentage of permanent migrants by type of movement, by residential area and state/region

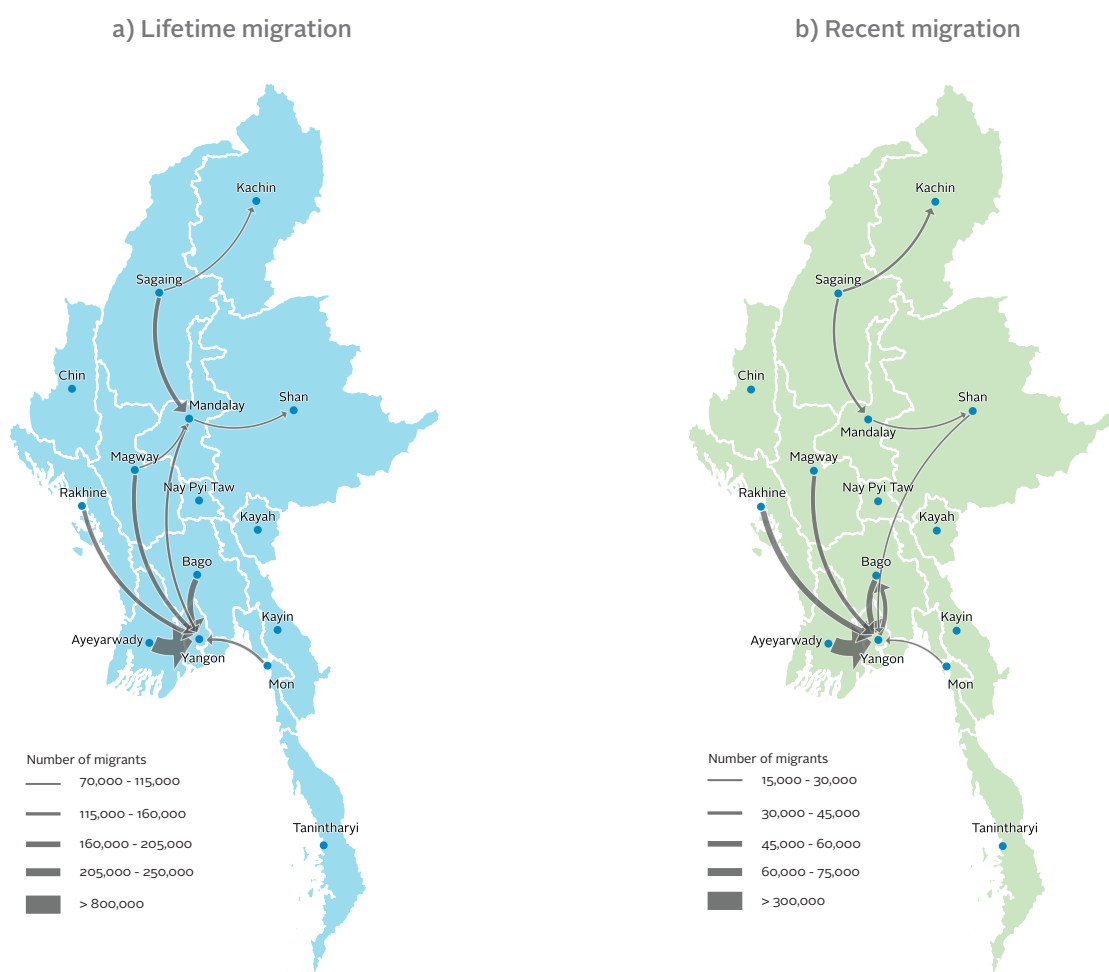


Source: 2017 MLCS

Permanent internal migration includes movements both within and across state/region borders. About half (54.3 percent) of lifetime internal migrants were born in the same state/region as they currently reside in, but significant differences exist between urban and rural areas. The remaining 45.7 percent of lifetime migrants currently live in a different state/region from the one they were born in (Figure 8-7). The majority of lifetime migrants in urban areas (55.2 percent) are from a different state/region, while the opposite is true for lifetime migrants in rural areas (33.5 percent from a different state/region). There is also wide variation across states/regions (Figure 8-7). The Union Territory of Nay Pyi Taw, which hosts many civil servants, and Kayin State and Mon State, which are near Thailand, have the highest incidences of lifetime migrants from a different state/region.

When considering permanent flows across states/regions, migration to Yangon Region has dominated both lifetime and recent migration corridors. Maps 8-1a and 8-1b show the top 10 largest permanent migration corridors for lifetime and recent migration, respectively. Six out of the top 10 lifetime migration corridors flow into Yangon Region, with the largest movement going from Ayeyarwady Region to Yangon Region. Small differences exist between the top 10 lifetime migration corridors and the top 10 recent corridors. Notably, there has been decreased movement from Mandalay Region to Yangon Region in recent years, while migration from Yangon Region to Bago Region has increased.

Top 10 permanent migration corridors (number of migrants)



Notes: Arrows are weighted by the number of migrants and show the direction of migration across states/regions. Lifetime migration corridors are between state/region of birth and current residence. Recent migration corridors are between state/region of previous residence and current residence. Outreach activities for the 2017 MLCS took place over the 12 months of data collection, but it was not possible to conduct interviews in two townships of Northern Rakhine State and the Wa Self-Administered Division.

Source: 2017 MLCS

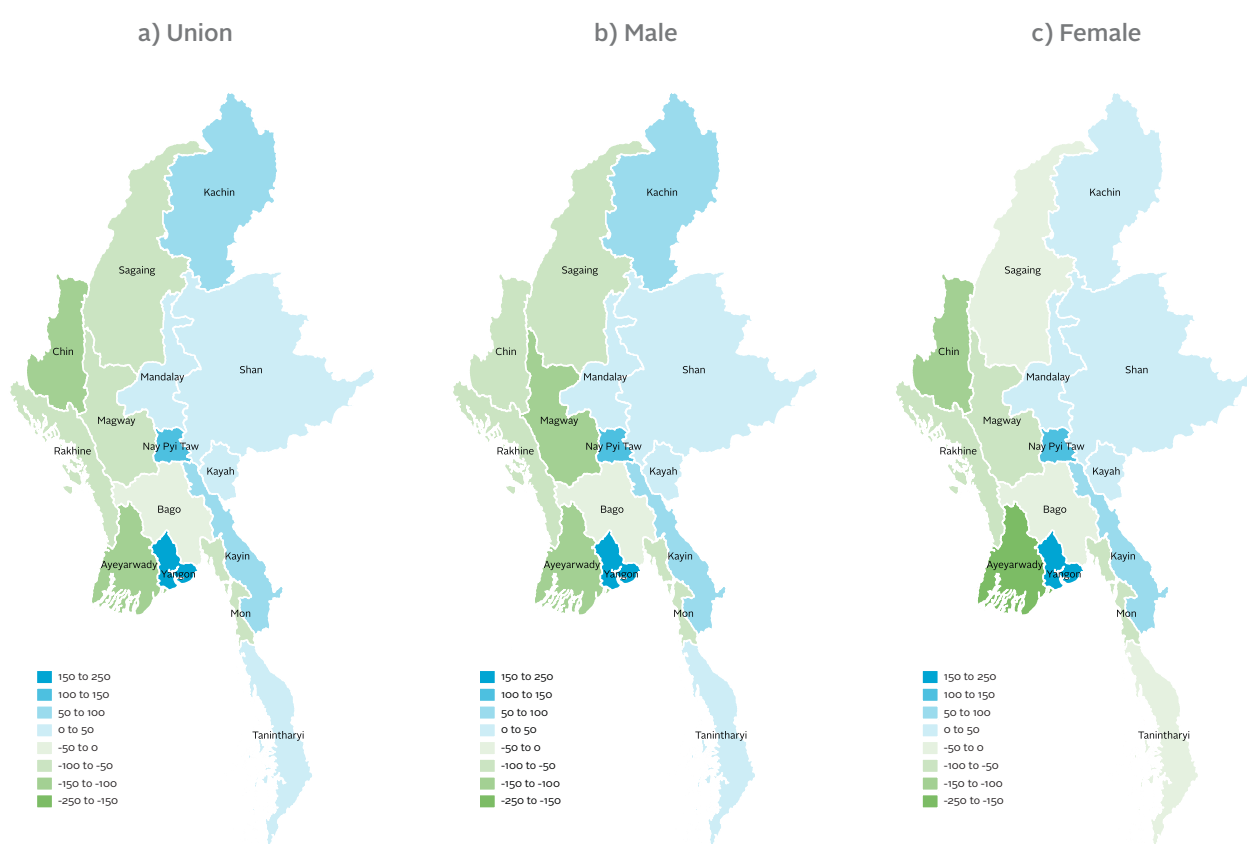
Evidence suggests spatial differentials in unskilled wages may have been a motivating factor for heavy permanent migration corridors. A significant force that influences cross-country and within-country permanent migration patterns is gaps in wages earned from unskilled labour across countries.⁵⁰ In 2017, Magway Region, Ayeyarwady Region, Bago Region, and Rakhine State exhibit the largest disparities in wages earned from elementary occupations when compared to Yangon Region. The average difference in median unskilled wages between Yangon Region and these four states/regions is 180.6 kyat per hour. These states/regions also display among the highest permanent migration flows into Yangon Region in recent years and over a longer time horizon (Map 8-1). Even when considering differences in sectoral participation among elementary occupations, Magway Region, Ayeyarwady Region, Bago Region, and Rakhine State rank highest in terms of unskilled wage differentials with Yangon Region: The average wage gap for unskilled jobs in the industrial sector between Yangon Region and these states/regions is 150 kyat per hour.

50 For example, Pritchett, 2006 describes “gaps in unskilled wages” as one of the five irresistible forces for mobility.

Across-state/region migration flows show that generally, the western part of Myanmar has lost population due to permanent migration, while the eastern part has gained population. Map 8-2 shows the net migration rate, or net permanent migration as a share of the local population size. Ayeyarwady Region has the lowest net migration rate, especially among women, indicating that they have lost the largest share of their population to migration. Chin State and Magway Region also have relatively large negative net migration rates, and in recent years, Rakhine State has seen a relatively large net loss in population (Map H-1 in Annex H). On the other hand, Yangon Region has experienced by far the highest net gains in population both in the past five years and in a longer time horizon. After Yangon Region, the Union Territory of Nay Pyi Taw has the second-highest net migration rate, which may be explained by the large number of governmental departments and civil servants situated in the Union Territory.

Map 8-2

Net lifetime migration rate (per 1,000 people)



Notes: Outreach activities for the 2017 MLCS took place over the 12 months of data collection, but it was not possible to conduct interviews in two townships of Northern Rakhine State and the Wa Self-Administered Division.

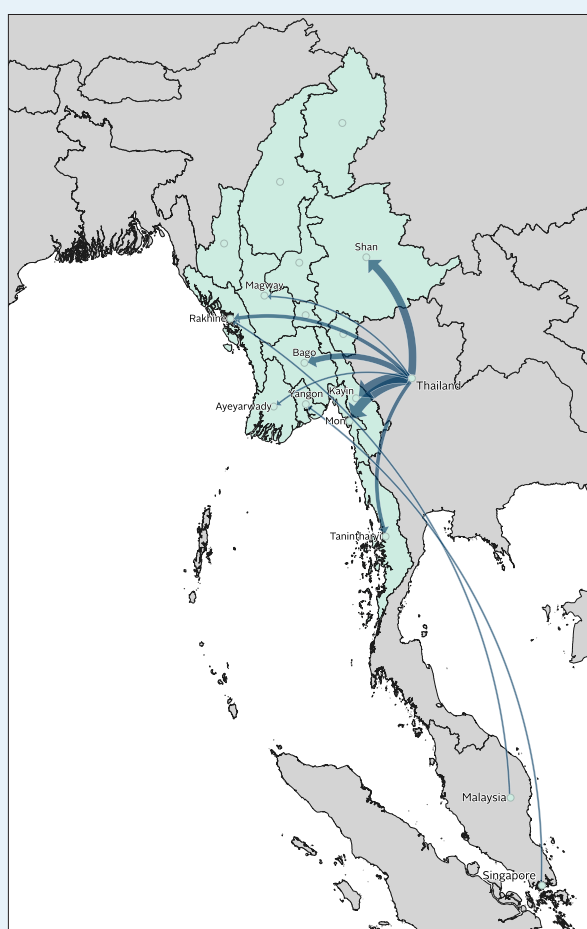
Source: 2017 MLCS

Box 8-2 Examining international migration through remittance flows

The assessment of international migration corridors through international remittance flows⁵¹ reveals that about 7.5 percent of households in Myanmar receive remittances from at least one former household member living abroad.⁵² Kayin State and Mon State have the highest shares of households receiving remittances from abroad (38.1 and 32.0 percent respectively). They also have the largest number of households receiving international remittances, with both hosting more than 100,000 such households. After Kayin and Mon States, Shan State and Bago Region have the third and fourth largest number of households receiving remittances from abroad, respectively.

Box 8-2 Map 1

Top 10 international remittance flows in terms of the number of households receiving remittances from abroad



Notes: Arrows are weighted by the number of households receiving remittances from abroad and show the direction of remittance flows. Outreach activities for the 2017 MLCS took place over the 12 months of data collection, but it was not possible to conduct interviews in two townships of Northern Rakhine State and the Wa Self-Administered Division.

Source: 2017 MLCS

51 The 2017 MLCS does not allow estimation of the number of individuals born in Myanmar who have migrated abroad, but international remittance flows from former household members may shed light on migration flows out of the country. A caveat to this analysis is that not all international migrants may send remittances, and a given household may receive remittances from more than one individual.

52 This number only includes remittances from former household members, or individuals who have been away from the household for more than six months in the 12 months preceding the survey.

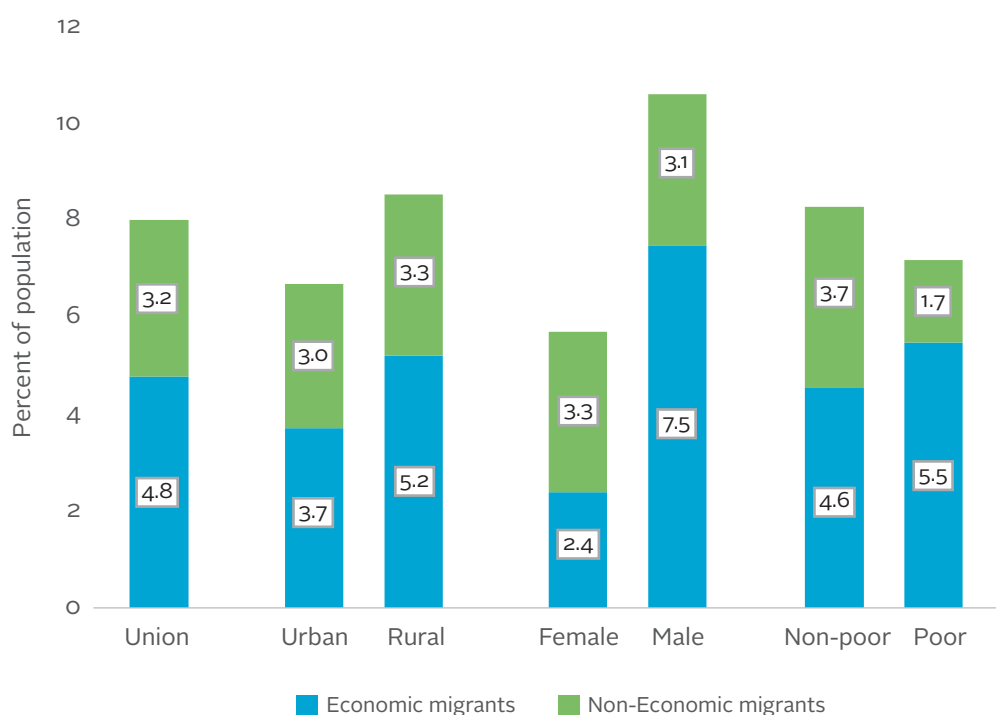
Thailand is by far the most common origin of international remittances, and states/regions in close proximity to the Thai border host the largest numbers of households receiving remittances from abroad. Box 8.2 Map 1 shows the top 10 international remittance flows, where each arrow represents the number of households receiving remittances. Flows from Thailand to Mon State and Kayin State are largest, and more than 85 percent of international remittance-receiving households in these two states get transfers exclusively from Thailand. Overall, eight of the top 10 remittance flows come from Thailand, suggesting that in terms of absolute numbers, permanent or longer-term international migration to Thailand is likely the highest. Malaysia is the second-most common origin of remittances to Myanmar and is thus likely to have the most international migrants after Thailand (Box 8-2 Map 1).

Temporary migration

As of 2017, 8.0 percent of the population are temporary migrants. Six out of ten temporary migrants are temporary economic migrants, while four out of ten are non-economic migrants (Figure 8-8). Individuals who temporarily migrate to work elsewhere in Myanmar compose most of temporary migrants (51.6 percent) and temporary economic migrants (86.5 percent) (Table 8-1). The most common non-economic reason for temporary migration is for education (53.8 percent of temporary non-economic migrants). Visiting family and marriage are also common reasons for non-economic migration.

Figure 8-8

Percentage of population that are temporary migrants, by residential area and gender



Source: 2017 MLCS

Table 8-1

Reasons for temporary economic and non-economic migration, by residential area, gender, and poverty status (in percent)

	Union	Urban	Rural	Female	Male	Non-poor	Poor
Economic migrant	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Work in Myanmar	86.5	81.8	87.8	86.7	86.4	85.4	89.3
Work abroad	11.9	15.9	10.8	10.7	12.4	13.1	9.0
Looking for work	1.6	2.2	1.4	2.5	1.2	1.5	1.7
Non-economic migrant	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Education	53.8	40.8	58.5	50.5	57.7	54.1	52.0
Health	8.3	9.0	8.1	9.4	7.0	8.8	5.3
Other	37.9	50.1	33.5	40.0	35.2	37.1	42.7

Source: 2017 MLCS

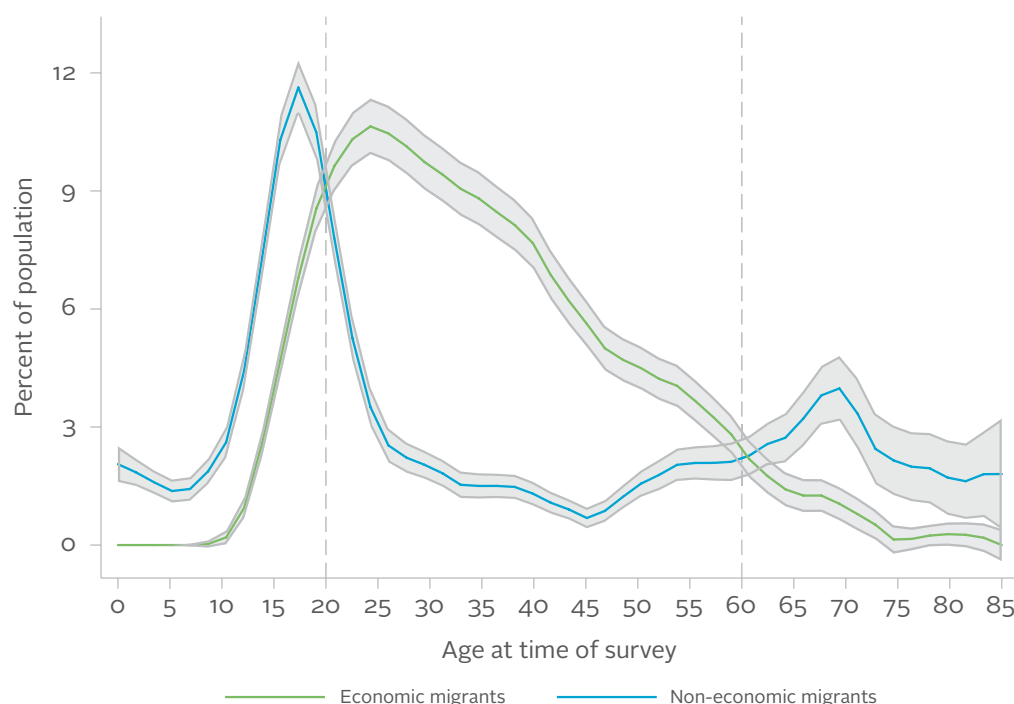
The likelihood of being a temporary economic or non-economic migrant is largely influenced by one's stage of life. Very few children below the age of 14 – the typical age for completing middle school in Myanmar – are either temporary economic or non-economic migrants (Figure 8-9). Between the ages of 14 and 15, when many students enter high school, there is a sharp increase in the likelihood of temporarily migrating for non-economic reasons, particularly education.⁵³ Throughout high school ages, temporary non-economic migration remains high, but steadily decreases in university ages, which is likely a consequence of low transition from high school to university. Between the ages of 15 and 20, temporary economic migration increases steadily, and after age 20 – the standard age of graduating university – temporary non-economic migration declines rapidly, with temporary economic migration surpassing non-economic migration. Between 25 and 60 years old, temporary economic migration decreases gradually, which may reflect a growing desire or need to be close to home with increasing age. After age 60, the typical age of retirement, temporary non-economic migration overtakes economic migration, with more people leaving the labour force and increasing temporary migration for health reasons or to visit family.

Rural residents are more likely than urban residents to be temporary economic migrants, particularly those working within Myanmar. Rural residents are 40.5 percent more likely than their urban counterparts to migrate temporarily for economic reasons (Figure 8-8). Among temporary economic migrants, those living in rural areas are more likely to migrate within Myanmar for work, while urban residents are more likely to migrate abroad for work (Table 8-1). While the share of urban and rural residents who migrate temporarily for non-economic reasons are similar, urban residents are significantly less likely than rural residents to temporarily move for education. This may be expected considering that public schools, particularly secondary schools, are generally more accessible in urban areas than in rural areas (MOE, 2016).

53 High schools and tertiary institutions are generally not as accessible as primary schools or middle schools in Myanmar. As a result, many students are required to stay with relatives or make other housing arrangements to attend high school or university (MOE, 2016).

Figure 8-9

Percentage of population that are temporary economic or non-economic migrants, by age



Note: The grey shaded area shows the 95% confidence interval.

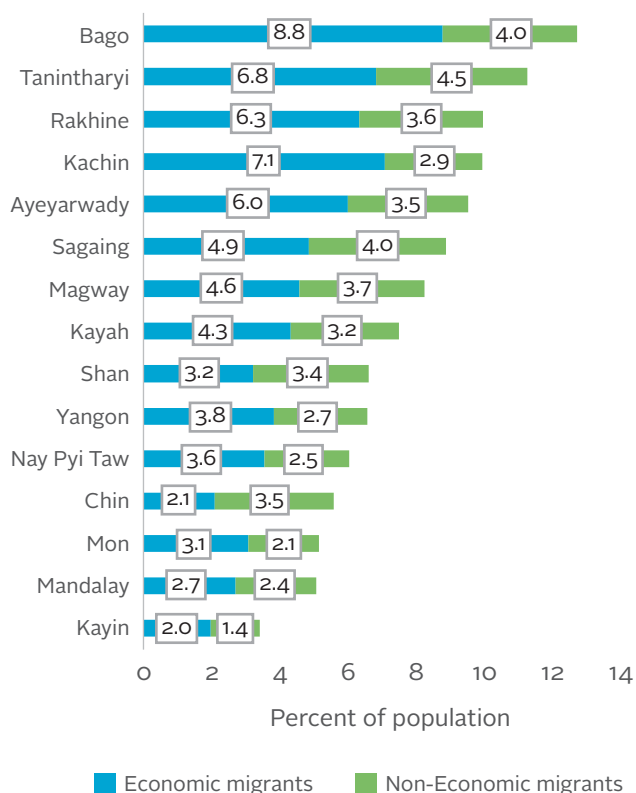
Source: 2017 MLCS

Men are three times as likely as women to temporarily migrate for economic reasons (Figure 8-8), which suggests relatively limited physical mobility among women. In 2017, men and women are similarly likely to temporarily be away from their households due to non-economic reasons. However, men are significantly more likely to be temporarily away for work: 7.5 percent of men and 2.4 percent of women are temporary economic migrants, and 73.6 percent of all temporary economic migrants are men (Figure 8-8). As shown in Chapter 7, labour force participation is significantly lower among women than men, and housework and child care are substantial deterrents for women to engage in the labour market. Even among the employed population, women are more likely than men to be working on a household farm or enterprise, especially without remuneration. These differences suggest that compared to men, women face greater restrictions to their physical mobility, as gender norms often require them to be close to home.

Significant differences in temporary migration rates exist across states/regions. Bago Region has the highest share of temporary migrants, followed by Tanintharyi Region (Figure 8-10). Most temporary economic migrants in every state/region are workers who migrate within Myanmar rather than abroad. However, in states/regions located near Myanmar's western and eastern borders, particularly the Thai border, a larger share of temporary economic migrants works abroad (Map 8-3). Despite being located near country borders, Kayin State, Chin State, and Mon State have among the lowest rates of temporary economic migration, which may be attributed to relatively high rates of permanent or longer-term migration abroad. A large share of households in these states/regions receive remittances from former members located internationally, suggesting that temporary migration spells abroad for individuals from these states tend to be comparatively long.

Figure 8-10

Percentage of the population that are temporary economic or non-economic migrants, by state/region



Source: 2017 MLCS

Map 8-3

Percentage of temporary economic migrants working abroad



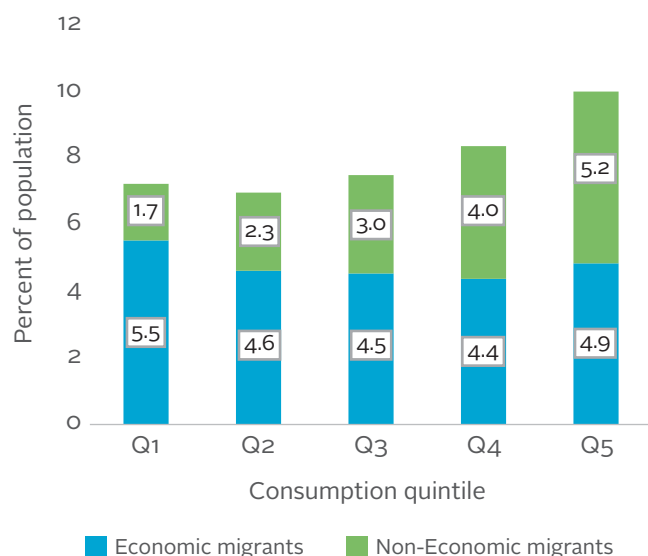
Notes: Outreach activities for the 2017 MLCS took place over the 12 months of data collection, but it was not possible to conduct interviews in two townships of Northern Rakhine State and the Wa Self-Administered Division.

Source: 2017 MLCS

Temporary non-economic migration is strongly associated with higher welfare, while temporary economic migration, particularly within Myanmar, is associated with poverty. The non-poor are more than twice as likely as the poor to be temporary non-economic migrants, particularly those who go away for educational reasons. Temporary non-economic migration generally increases with welfare (Figure 8-11), as more individuals in higher quintiles migrate temporarily for education or other reasons such as visiting family. Temporary economic migration abroad is also higher among the non-poor, while the poor are more likely to be temporary economic migrants working within Myanmar. In addition, the share that temporarily migrate abroad for employment increases with welfare, while the share that migrates for employment within Myanmar decreases (Figure 8-12). This result may be expected considering that international migration, particularly temporary migration abroad, is associated with higher financial and time-related costs compared to internal migration. Only those who can afford these costs and who deem temporary migration abroad to be profitable may decide to follow this route. On the other hand, temporary migration within Myanmar may be more of a short-term solution or coping mechanism that allows households to meet basic needs, particularly in off-seasons.

Figure 8-11

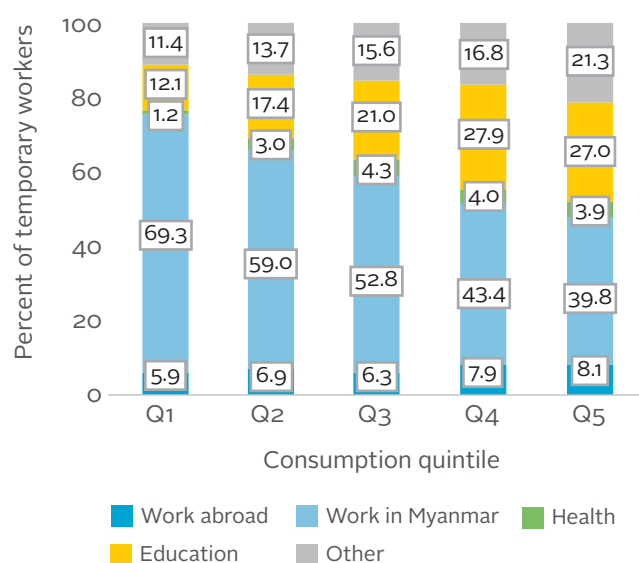
Percentage of population that are temporary economic or non-economic migrants, by consumption quintile



Note: Q1 to Q5 represents per adult equivalent consumption quintiles with Q1=poorest quintile and Q5=wealthiest quintile.
Source: 2017 MLCS

Figure 8-12

Reasons for temporary migration, by consumption quintile (in percent)



Note: Q1 to Q5 represents per adult equivalent consumption quintiles with Q1=poorest quintile and Q5=wealthiest quintile. Other include people looking for work.
Source: 2017 MLCS

Temporary economic migration in the labour force⁵⁴

Employment that requires temporary migration, especially within Myanmar, is characterised by higher casual and seasonal labour. Given the short-term nature of many jobs that require temporary migration, temporary economic migrants are 2.3 times more likely than employed members of the labour force who are not economic migrants to have more than one job. The majority (88 percent) of temporary economic migrants work just one job that requires them to migrate temporarily. Compared to jobs that do not require temporary migration, jobs that do are significantly more likely to be associated with low-paying elementary occupations such as casual labour in mining, construction, manufacturing, or in the collection of refuse.

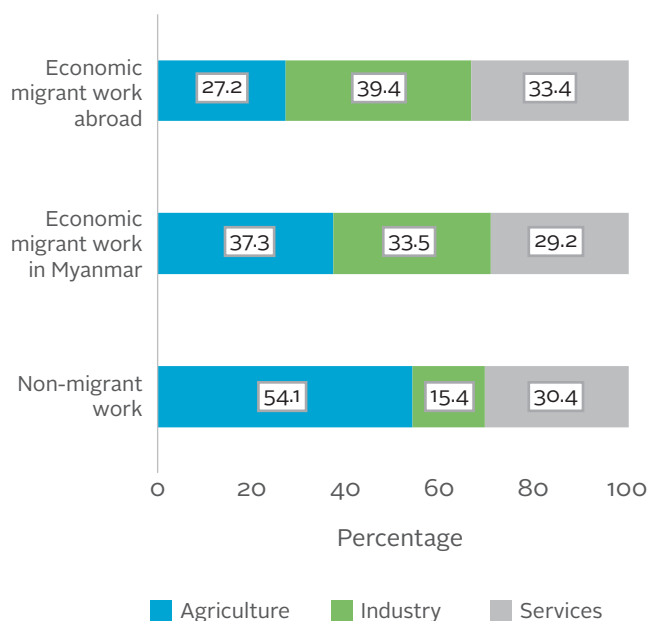
Employment among temporary economic migrants is largely concentrated in the non-agricultural sector, particularly in industries. Relative to work that is not characterised by temporary migration, a significantly higher share of work that requires temporary migration – either internally or abroad – are in the industrial sector (Figure 8-13). While 54.1 percent of non-migrant employment⁵⁵ is agricultural, just 37.3 percent of temporary economic migrant work in Myanmar and 27.2 percent of migrant work abroad is agricultural. In general, a relatively large share of economic migrants are away from home for industrial work, particularly as unskilled labourers in construction or manufacturing.

⁵⁴ This section draws on results from probit regressions of being a temporary economic migrant on various individual, household, and state/region characteristics. The sample is restricted to employed members of the labour force. See Annex H Table H-1 for results of the regression.

⁵⁵ “Non-migrant work” represents jobs that do not require temporary migration.

Figure 8-13

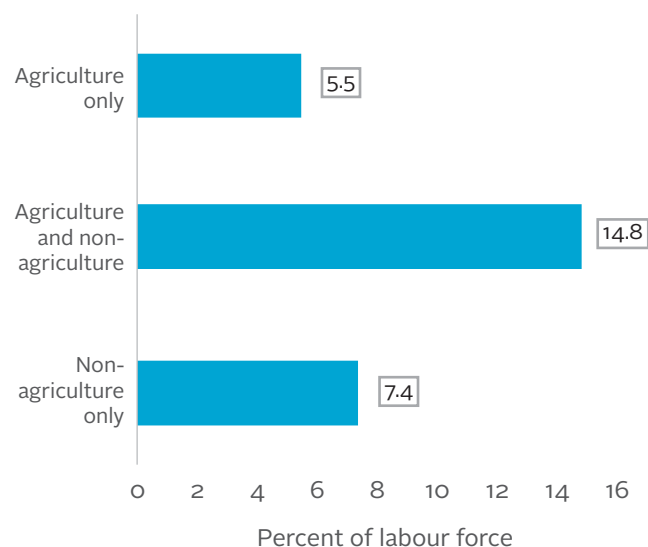
Sectoral breakdown of jobs that require temporary migration and those that do not (in percent)



Notes: "Non-migrant work" represents jobs that do not require temporary migration.
Source: 2017 MLCS

Figure 8-14

Percentage of labour force that are economic migrants, by household sectoral participation



Source: 2017 MLCS

Members of households engaged in both agriculture and non-agriculture are twice as likely to be temporary economic migrants as members of households engaged exclusively in one sector (Figure 8-14). While individual participation in non-agriculture, particularly in industrial jobs, makes one more likely to be an economic migrant, having another household member employed in agriculture also increases one's likelihood of temporarily migrating for work. These results suggest that temporary economic migrants generally are members of agricultural households who work temporarily in non-agricultural jobs. Agricultural activities in Myanmar are highly seasonal, and agricultural households, particularly poor ones, often face difficulty securing enough income-generating activities in off-seasons (Pattison, et al., 2016). Given that jobs in non-agricultural sectors are generally associated with higher wages (see Chapter 7), some agricultural households may use temporary migration as an avenue to diversify into non-agricultural activities.

Main takeaways and implications

This chapter shows that employment and other economic reasons are strong motivations for both permanent and temporary migration. Permanent migration corridors largely flow into Yangon Region, especially from states/regions which have significantly lower unskilled wages. In addition, more than half of temporary migrants are economic migrants, who travel for work. While permanent migrants tend to be better off than those who have never moved in their lifetime, temporary economic migrants, especially those working in Myanmar, are generally poorer than those who do not move temporarily to work. In addition, compared to other jobs, work characterised by temporary migration is significantly more likely to be casual labour, particularly in the industrial sector, which is associated with higher job insecurity, informality, and lower wages.

These findings raise the following implication:

- i. Ensuring equal economic development across all states/regions of Myanmar could decrease the need for people to migrate. Reducing spatial disparities in labour market opportunities throughout the year could also help reduce demographic pressure on more urbanized areas such as Yangon city and the region. However, as such initiatives require a longer time horizon, migration remains a flexible and immediate way to access greater employment opportunities, especially for the poor.





09.

EXAMINING SOURCES OF INCOME AND DIVERSIFICATION

In a highly agricultural and seasonal economy such as Myanmar's, households may be engaged in multiple income-generating activities over the course of a year. Even within the span of a day or week, household and individual participation in such activities can be fragmented across multiple tasks or sectors. This chapter aims to better understand how households secure their income, and how they diversify their income sources, and the productive assets they have at their disposal in order to improve returns.⁵⁶ It also assesses the relative importance of the various activities that contribute to total household income.

Household engagement in income-generating activities

Labour market activities in Myanmar are varied and can be fragmented across multiple jobs or sectors. Owing to a highly agricultural and seasonal economy, individual activities in the labour market may be varied in terms of both sector and intensity of participation in any given month, week, or even day. For example, individuals living in rural areas may tend to their crop and livestock in the morning, then shift to working at roadside stall in the afternoon. A single individual can therefore be engaged both in agricultural and non-agricultural activities during a given day. Within a household, labour market activities are often more diverse, as employment can range from wage labour to own-account work to running an enterprise as an employer or owner.

Households largely rely on income earned from labour market activities, but income sources can extend beyond these activities. Household income is comprised of five general categories of activities both within and outside of the labour market, which include namely farming and allied activities, non-farm business⁵⁷, salaried and waged labour, remittances, and other income (Figure 9-1). For each category, income is calculated net of costs related directly to the income-generating activity. Farming and allied income include net profits from crop production, rearing livestock, and fishing, while other income includes money earned from renting out land, public and social transfers such as pension payments, and miscellaneous income such as assistance from friends and interest payments. As seen in Chapter 7, individuals and households primarily engaged in agricultural labour differ significantly from those that engage in non-agricultural labour, particularly in terms of educational attainment and welfare. Thus, wages earned from agricultural labour are distinguished from those earned from non-agricultural labour.

In 2017, farming is the most common income-generating activity among households, but substantial differences in income sources exist between rural and urban areas. At the Union level, more than half of households (57.4 percent) participate in farming, which includes crop production, fishing, or livestock rearing (Table 9-1). This is mainly driven by the substantial engagement in farming activities in rural areas, where more than 70 percent of the population resides. Three out of four rural households are involved in farming activities, and 83.3 percent are engaged in either farming or agricultural labour. In comparison, just 19.3 percent of urban households participate in agricultural activities – more than four times less than rural households. The most prevalent sources of income in urban areas are non-agricultural labour and non-farm business: nearly nine out of ten households in urban areas take part in either of these non-agricultural activities.

⁵⁶ The method for constructing the income aggregate closely follows the Rural Income Generating Activities (RIGA) approach (Carletto, et al., 2007). All components of the income aggregate are calculated net of costs to get a more accurate estimate of disposable income.

⁵⁷ A non-farm business is any self-run enterprise that generates income. This includes single-person enterprises such as trishaw drivers or private garbage collectors as well as large factories and companies.

Figure 9-1

Sources of household income

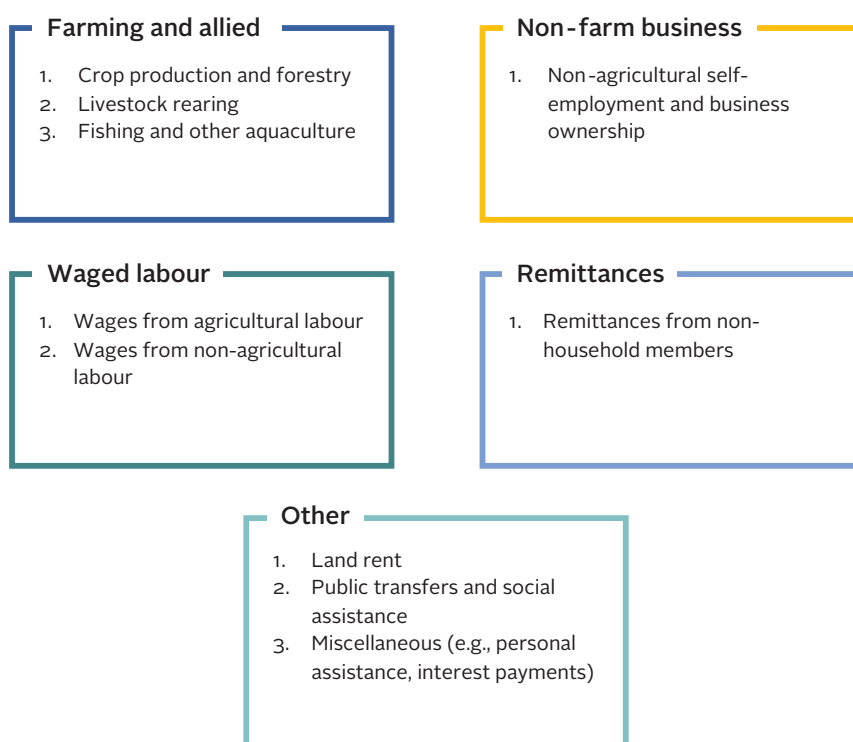


Table 9-1

Percentage of households engaged in each income source

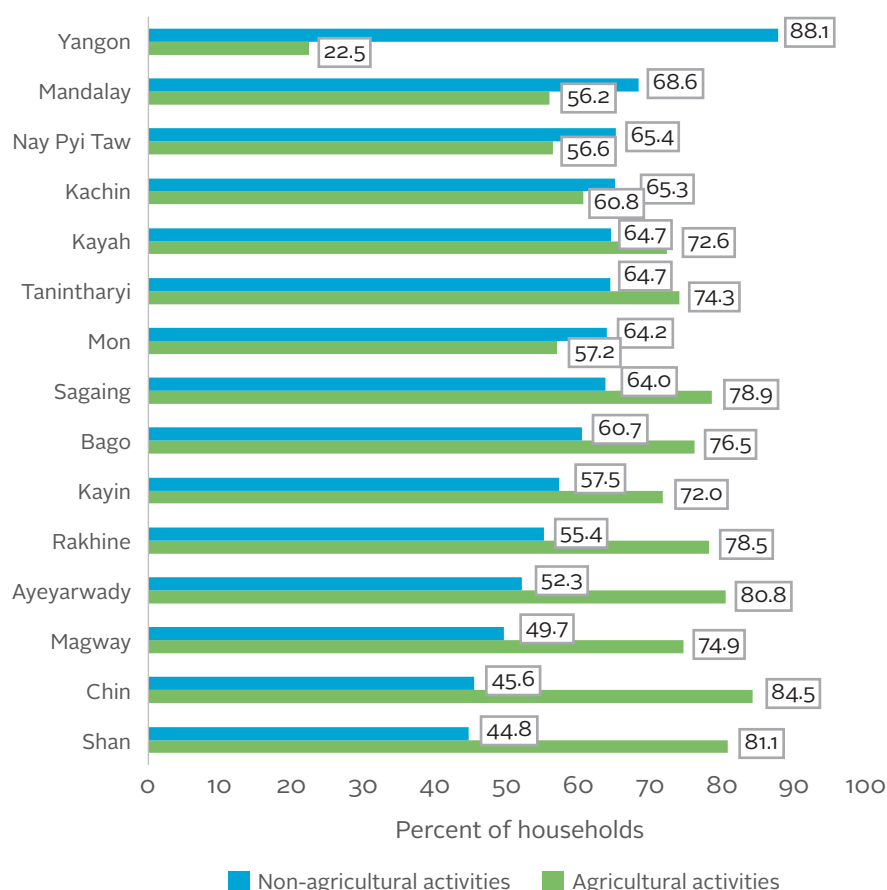
	Union	Urban	Rural	Non-poor	Poor
Farming and allied	57.9	16.8	74.5	54.7	70.5
Crop production	40.6	8.4	53.7	38.9	47.5
Livestock rearing	45.0	11.6	58.5	42.0	56.8
Fishing and aquaculture	8.9	1.5	11.9	7.8	13.1
Non-farm business	37.2	54.9	30.0	40.5	24.0
Agricultural labour	26.2	5.0	34.8	21.0	46.8
Non-agricultural labour	40.0	61.9	31.1	40.8	36.8
Remittances	19.5	18.5	19.9	20.2	16.7
Other	33.8	34.2	33.7	34.6	30.8
Rent	2.8	1.1	3.5	3.0	2.3
Public/social transfers	15.0	15.4	14.8	15.3	13.8
Miscellaneous	21.2	22.5	20.7	21.9	18.6
Agricultural activities	65.2	19.6	83.7	60.6	83.6
Non-agricultural activities	62.5	89.3	51.7	65.9	49.2

Notes: Agricultural activities include farming activities and agricultural labour. Non-agricultural activities include non-farm business and non-agricultural labour.

States/Regions with high engagement in non-agriculture tend to have low engagement in agricultural activities, and vice versa. Among states/regions, Yangon Region has by far the highest household participation in non-agricultural activities, namely non-farm business and non-agricultural labour (Figure 9-2).⁵⁸ At the other end of the spectrum, Chin State and Shan State have the lowest shares of households engaged in non-agricultural activities, particularly non-farm business. Instead, more than 80 percent of households in these states are involved in agricultural activities, putting them at the top of states/regions in terms of household participation in agriculture.

Figure 9-2

Percentage of households engaged in agricultural and non-agricultural activities, by state/region



Notes: Agricultural activities include farming activities and agricultural labour. Non-agricultural activities include non-farm business and non-agricultural labour.

Source: 2017 MLCS

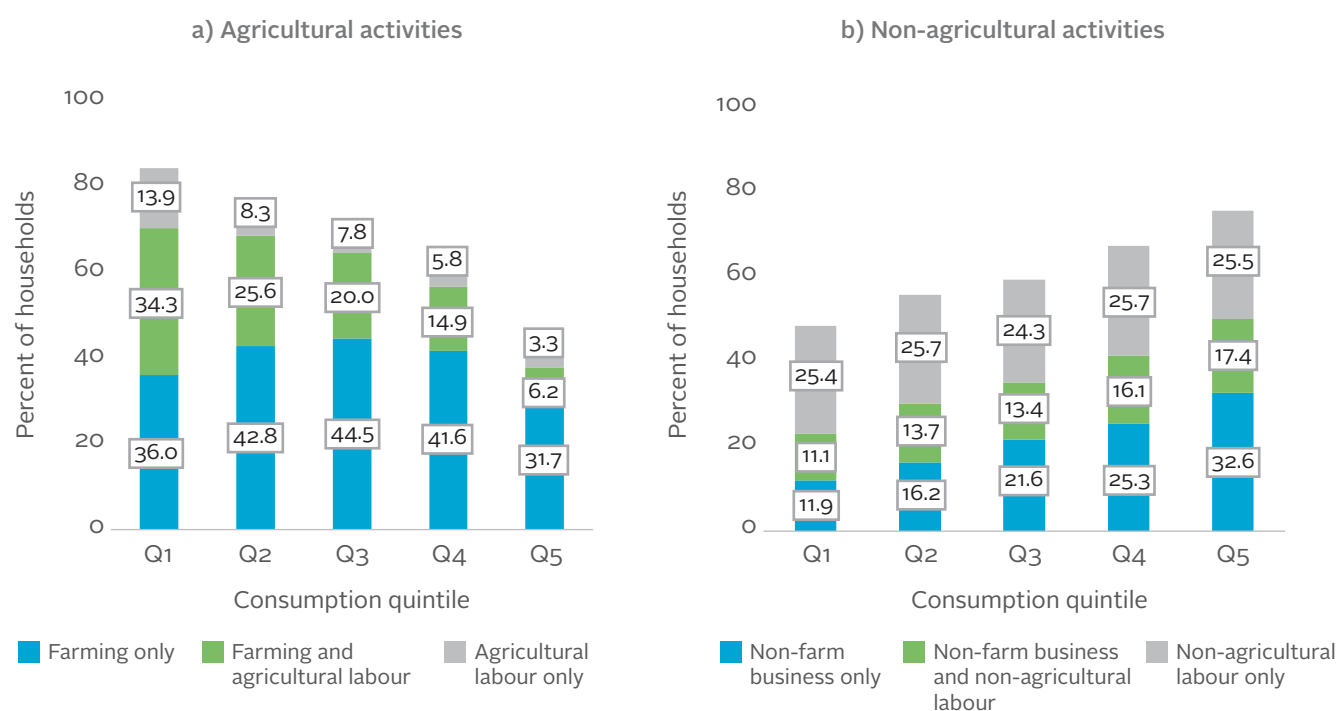
Poor households are significantly more likely to participate in agricultural activities, particularly agricultural labour, while non-poor households are more likely to engage in non-agricultural activities, especially non-farm business. Almost 84 percent of poor households partake in agriculture, compared to 60.6 percent of non-poor households (Table 9-1). Overall, household welfare is negatively correlated with participation in agriculture, while it is positively correlated with participation in non-agriculture (Figure 9-3). Participating in agricultural labour is associated with lower welfare: the share of households engaged in agricultural labour – either exclusively or together with farming – is higher among lower consumption quintiles. Agricultural labour is highly

⁵⁸ See Annex I Table I-1 for further disaggregation.

seasonal and can be susceptible to adverse weather events. Moreover, it remains largely informal in Myanmar, with very few workers having written contracts or receiving benefits such as paid leave. On the other hand, non-agricultural activities, particularly non-farm business, are associated with higher welfare. Non-poor households are 68.8 percent more likely than poor households to operate a non-farm business and 33.9 percent more likely to be involved in any non-agricultural activity.

Figure 9-3

Household engagement in agricultural and non-agricultural activities, by consumption quintile (in percent)



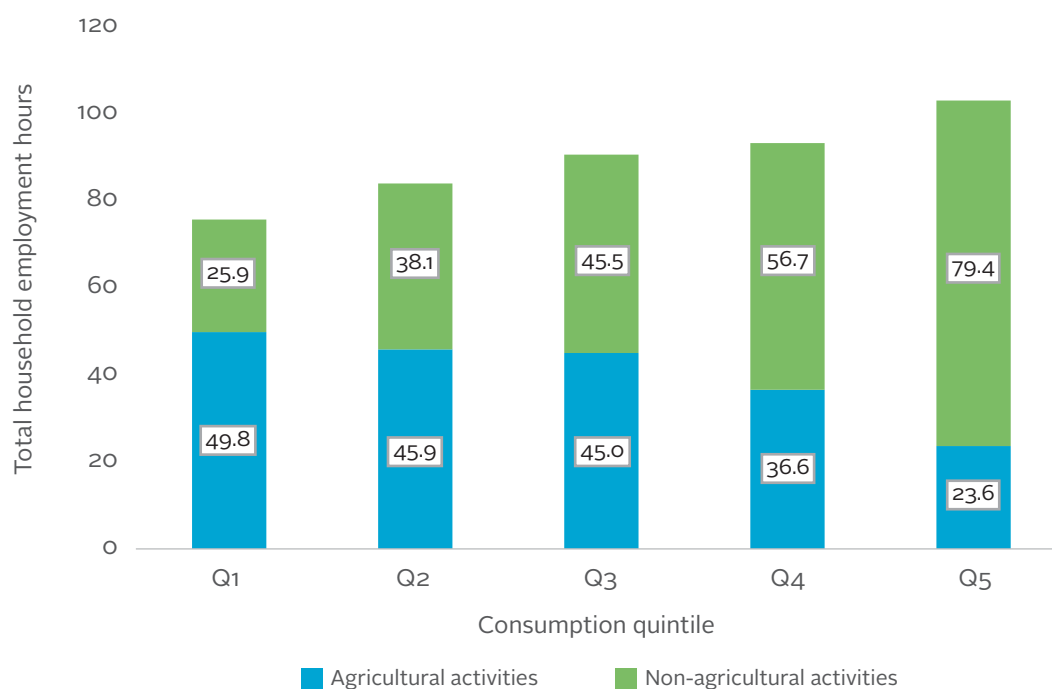
Notes: Agricultural activities include farming activities and agricultural labour. Non-agricultural activities include non-farm business and non-agricultural labour. Q1 to Q5 represents per adult equivalent consumption quintiles with Q1=poorest quintile and Q5=wealthiest quintile.

Source: 2017 MLCS

The intensity of household participation in non-agricultural income-generating activities also increases with welfare, while the intensity of participation in agricultural activities declines with welfare. Although households may participate in the same activity, the intensity of their participation may differ depending on the number of household members involved and hours spent on the activity. For example, two households may both be engaged in non-agricultural labour, but one household may have just one member doing non-agricultural work and only for a few months of the year, while the other may have multiple members working year-round in non-agricultural jobs. The second household will thus have more intense participation in non-agricultural labour relative to the first. Despite having larger household sizes, poorer households spend less total time working, reflecting the highly seasonal nature of many of their labour market activities (Figure 9-4). Most of their time spent working is in agricultural activities, unlike wealthier households which spend both more hours and a higher share of their total working hours in non-agricultural activities.

Figure 9-4

Total weekly household employment hours spent on agricultural and non-agricultural activities, by consumption quintile



Notes: Agricultural activities include farming activities and agricultural labour. Non-agricultural activities include non-farm business and non-agricultural labour. Q1 to Q5 represents per adult equivalent consumption quintiles with Q1=poorest quintile and Q5=wealthiest quintile.

Source: 2017 MLCS

Households exhibit different levels of income diversification, but exclusive participation in farming is the most common activity. Considering diversification across the four main income-generating activities (i.e., farming, non-farm business, agricultural wage labour, and non-agricultural wage labour), exclusive engagement in farming is the most prevalent, with one in five households depending primarily on farming for their livelihood (Table 9-2). Exclusive participation in farming is the top activity among both poor and non-poor households. Exclusive engagement in non-agricultural labour and participation in farming jointly with agricultural labour are the second and third most prevalent activity combinations. The former is primarily driven by a large share of non-poor households engaging solely in non-agricultural labour, while the latter is driven by poor households.

Households in the wealthiest quintile are the least likely to diversify. On average, households in Myanmar engage in two (out of a total of six) income-generating activities throughout the year. About 27.4 percent of households participate in just one activity, and the wealthiest quintile are 23.0 percent more likely than the other quintiles to engage in one activity. Two out of three households in the top quintile with just one income source either operate a non-farm business or work in non-agricultural labour, suggesting that the wealthiest households are more likely to specialize in non-agriculture instead of diversifying across activities and sectors.

Table 9-2

Income diversification: percentage of households participating in combinations of main income-generating activities

Combination rank	Percent of households	Farming	Agricultural labour	Non-agricultural labour	Non-farm business	Average per capita income
1	19.5	X				35,143
2	11.7			X		88,955
3	10.9	X	X			34,142
4	10.2				X	133,271
5	9.3			X	X	111,548
6	8.4	X			X	76,614
7	7.4	X		X		51,233
8	4.2	X	X	X		43,924
9	3.7	X		X	X	80,744
10	3.6					63,564
11	3.4		X			44,470
12	2.8	X	X		X	50,328
13	2.1		X	X		55,037
14	1.2		X		X	58,783
15	1.0	X	X	X	X	61,822
16	0.7		X	X	X	65,741

Notes: Agricultural activities include farming activities and agricultural labour. Non-agricultural activities include non-farm business and non-agricultural labour. "X" marks indicate participation in the activity. Average per capita income is reported in spatially adjusted 2017 quarter 1 kyat.

Source: 2017 MLCS

Total household income in 2017

In 2017, per capita monthly income is nearly 68,000 kyat with significant differences in income between urban and rural areas, states/regions, and the poor and non-poor. Income is another measure of welfare and even if it is not used to measure poverty in Myanmar, measuring income provides important information for policies to improve livelihoods (see Box 9-1). Both household and per capita income levels are two times higher in urban areas than they are in rural areas (Table 9-3). Yangon Region has the highest average per capita income at almost 95,000 kyat per month, which is three times higher than that of Chin State and twice as high as income in Rakhine State (Figure 9-6a). Per capita income is about 2.4 times higher among the non-poor than the poor: on average, poor households earn about 33,000 kyat per person per month, while non-poor households earn about 79,000 kyat per person per month. Income levels are comparable to consumption levels, with consumption generally being slightly higher than income, especially in rural areas.⁵⁹ State/Region rankings in income closely follow rankings based on consumption, and the state/region-level correlation between income and consumption is high ($\rho=0.87$).

59 Income is typically a more sensitive topic than consumption, which may be easier to verify (Deaton, 1997). Thus, income is often more susceptible to under-reporting than is consumption.

Box 9-1 Income and consumption as measures of welfare

Income and consumption both measure household welfare in monetary terms. However, income is typically characterised by higher short-run volatility compared to consumption. Unfavourable weather conditions may adversely impact a farmer's harvest in a given year or a sudden illness could limit one's ability to work. Such circumstances may negatively affect individual as well as household income in the short term.

Studies find that households tend to smooth their consumption over their lifetime, so consumption patterns are determined not by current income but by the income they expect to earn over their lifetime (Paxson, 1992). Thus, household rankings based on consumption are usually more consistent than those based on income (Chaudhuri and Ravallion, 1994; Deaton, 1997). Consumption also reflects a household's ability to access credit markets or use savings, particularly at times when income may be low. For these reasons, consumption may provide a more accurate picture of long-term household welfare than income does.

In many developed countries, welfare and poverty are often assessed based on income, which is easily measured where formal employment is high. However, in most developing countries, informal employment is widespread and income sources are often varied and highly susceptible to seasonal variation. These conditions make it difficult to accurately measure income, and thus consumption is often considered a more reliable measure of household welfare. Despite this, understanding how households obtain their income is important to inform policies that can improve livelihoods.

Table 9-3

Average consumption and income, by residential area and poverty status (2017 quarter 1 kyat)

	Union	Urban	Rural	Non-poor	Poor
Household annual (millions)					
Income	3.47	5.36	2.71	3.82	2.10
Consumption	3.95	5.21	3.45	4.37	2.29
Per capita monthly					
Income	67,798	105,619	52,698	79,153	33,365
Consumption	77,157	102,707	66,957	90,606	36,378
Per capita daily					
Income	2,229	3,472	1,733	2,602	1,097
Consumption	2,537	3,377	2,201	2,979	1,196

Notes: Values are reported in spatially adjusted 2017 quarter 1 kyat.

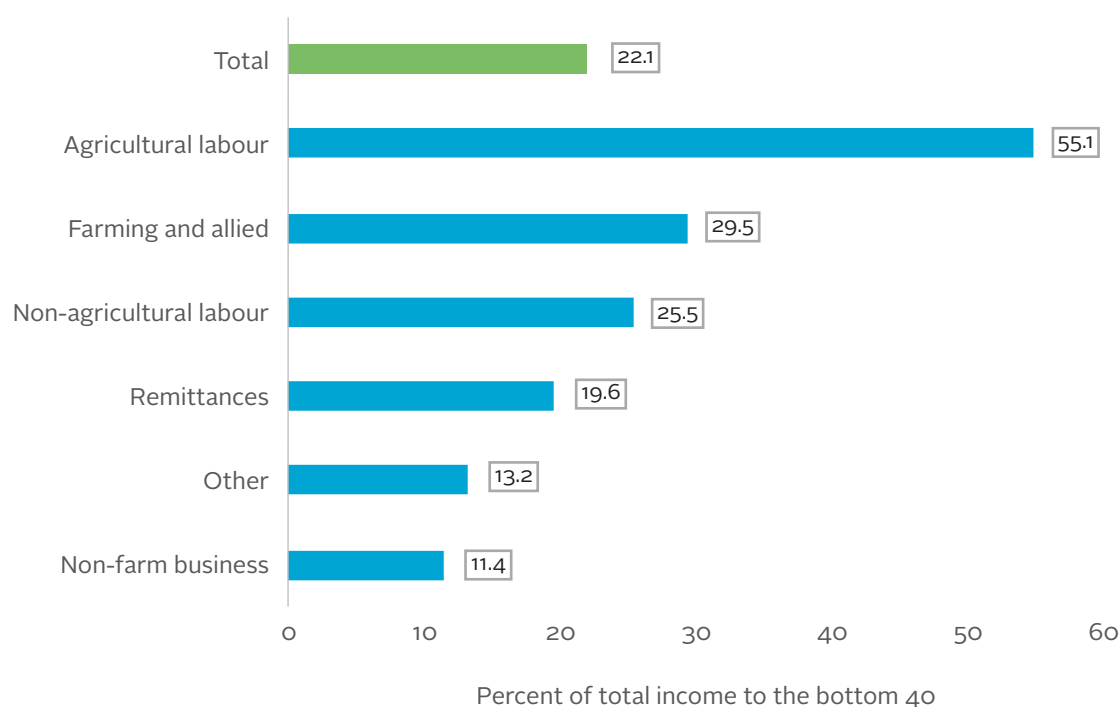
Source: 2017 MLCS

Less than a quarter of total income in Myanmar can be attributed to the poorest 40 percent of the population, demonstrating that income is unequally distributed across the welfare distribution and inequality is a significant issue. Perfect income equality would imply that the bottom 40 percent of the consumption distribution holds exactly 40 percent of total income in Myanmar. Anything less than 40 percent would indicate that income is unequally distributed across the population with a greater share of income going to the wealthy. The bottom 40 holds only 22.1 percent of total income in Myanmar (Figure 9-5). For all income sources except agricultural labour, the share of total income attributed to the bottom 40 falls below 40 percent. This may be expected

for categories such as non-farm business, in which the bottom 40 are significantly less likely to participate. However, the share of income generated from farming activities, in which the bottom 40 are more likely to participate, also falls short at 29.5 percent. Agricultural wage labour is the only category for which the share of total income attributed to the bottom 40 is higher than 40 percent since poor households are more likely to participate in agricultural wage labour.

Figure 9-5

Percentage of total income attributed to the bottom 40 percent of the consumption distribution



Note: Each bar reflects the share of total income from that category in Myanmar attributed to the bottom 40 percent of the population in the consumption distribution.

Source: 2017 MLCS

Despite high participation in agricultural activities, particularly in rural areas, income from non-agricultural activities makes up the largest portion of household income in both urban and rural areas. On average, about 36.1 percent of household income is in the form of profits from non-farm business, while another 27.7 percent comes from wages earned from non-agricultural labour (Table 9-4). In total, almost two-thirds of income is derived from these non-agricultural activities. This share is significantly higher in urban areas (84.1 percent) than in rural areas (47.6 percent), which may be expected given how many urban households engage in non-agricultural activities. In rural areas, eight out of ten households are involved in farming and/or agricultural labour, but the share of income derived from these agricultural activities is just 37.0 percent.

Table 9-4

Average household income shares, by residential area and poverty status (in percent)

	Union	Urban	Rural	Non-poor	Poor
Total income	100.0	100.0	100.0	100.0	100.0
Farming and allied	14.1	1.7	23.9	13.4	19.1
Crop production	12.5	1.6	21.3	12.1	16.0
Livestock income	0.4	0.0	0.6	0.3	0.8
Aquaculture income	1.2	0.2	2.0	1.0	2.4
Non-farm business	36.1	47.6	27.0	39.0	15.5
Agricultural wages	7.8	1.1	13.1	5.4	24.4
Non-agricultural wages	27.7	36.5	20.6	27.2	30.6
Remittances	8.5	6.3	10.2	8.6	7.1
Other	5.9	6.7	5.3	6.3	3.2
Rent	0.3	0.1	0.5	0.3	0.3
Public/Social transfers	1.5	2.1	1.0	1.5	1.2
Miscellaneous	4.1	4.5	3.9	4.5	1.8

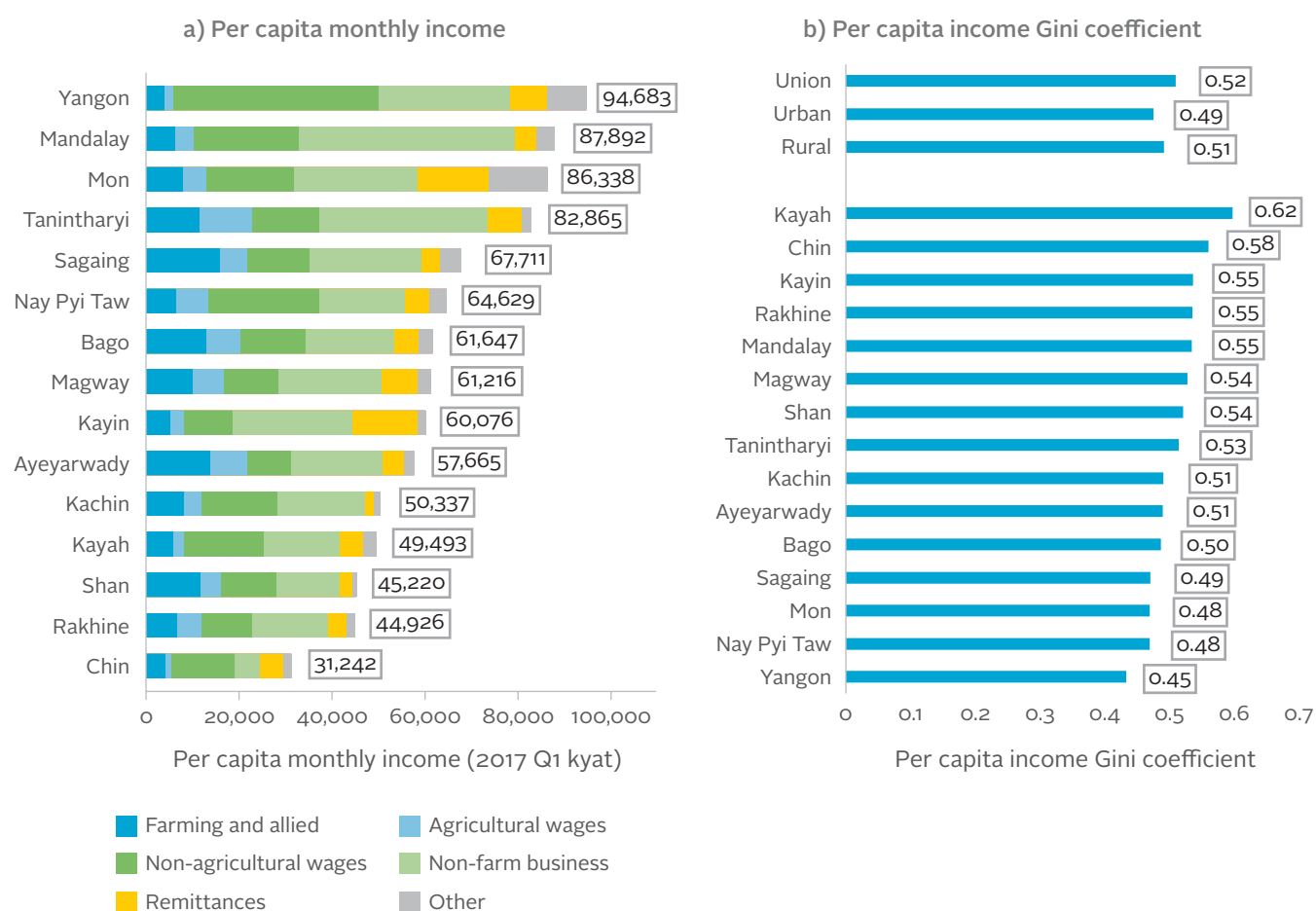
Source: 2017 MLCS

Income variation across states/regions can mainly be attributed to differences in engagement and returns from non-farm business and non-agricultural labour. Yangon Region has the highest share of households engaged in non-farm business and non-agricultural wages (Table I-1 in Annex I), and these two sources together make up more than 75 percent of average per capita income in the region. In contrast, participation in non-farm business and non-agricultural labour and income from these activities are relatively low in states/regions at the lower end of the income distribution. In general, non-farm business profits alone explain more than 72 percent of the variation in income across states/regions, while non-farm business profits and non-agricultural wages together explain more than 85 percent. Despite having the highest average income, Yangon Region has the lowest income inequality among states/regions, with a Gini coefficient of 0.447⁶⁰ (Figure 9-6b). Overall, state/region income is negatively correlated with income inequality ($\rho=-0.57$).

60 The Gini coefficient is measured using per capita income while the Gini coefficient presented in the Poverty Report is measured using consumption (CSO, UNDP and WB, 2019)

Figure 9-6

Per capita income and income inequality, by state/region



Notes: Values are reported in spatially adjusted 2017 quarter 1 kyat. In 2017, 2.6 percent of households had income below zero. For inequality calculations, income below zero was recoded to zero.

Source: 2017 MLCS

Poverty is associated with greater dependence on wages earned from agricultural labour and less dependence on profits generated from non-farm business. For those in the bottom quintile, 26.5 percent of income is derived from agricultural wage labour (Figure 9-7). This share decreases significantly as consumption increases, indicating that poor households are more likely to be engaged in agricultural wage labour. In the wealthiest quintile, agricultural wages account for 1.8 percent of household income. On the other hand, the share of income from non-farm business increases significantly with consumption to represent almost half (48.7 percent) of income in the top quintile – 3.4 times the amount it makes up in the bottom quintile. Regardless of welfare category, non-agricultural wages comprise at least a quarter of household income, despite variation in the type of non-agricultural work done across quintiles.

Figure 9-7

Average household income shares, by consumption quintile



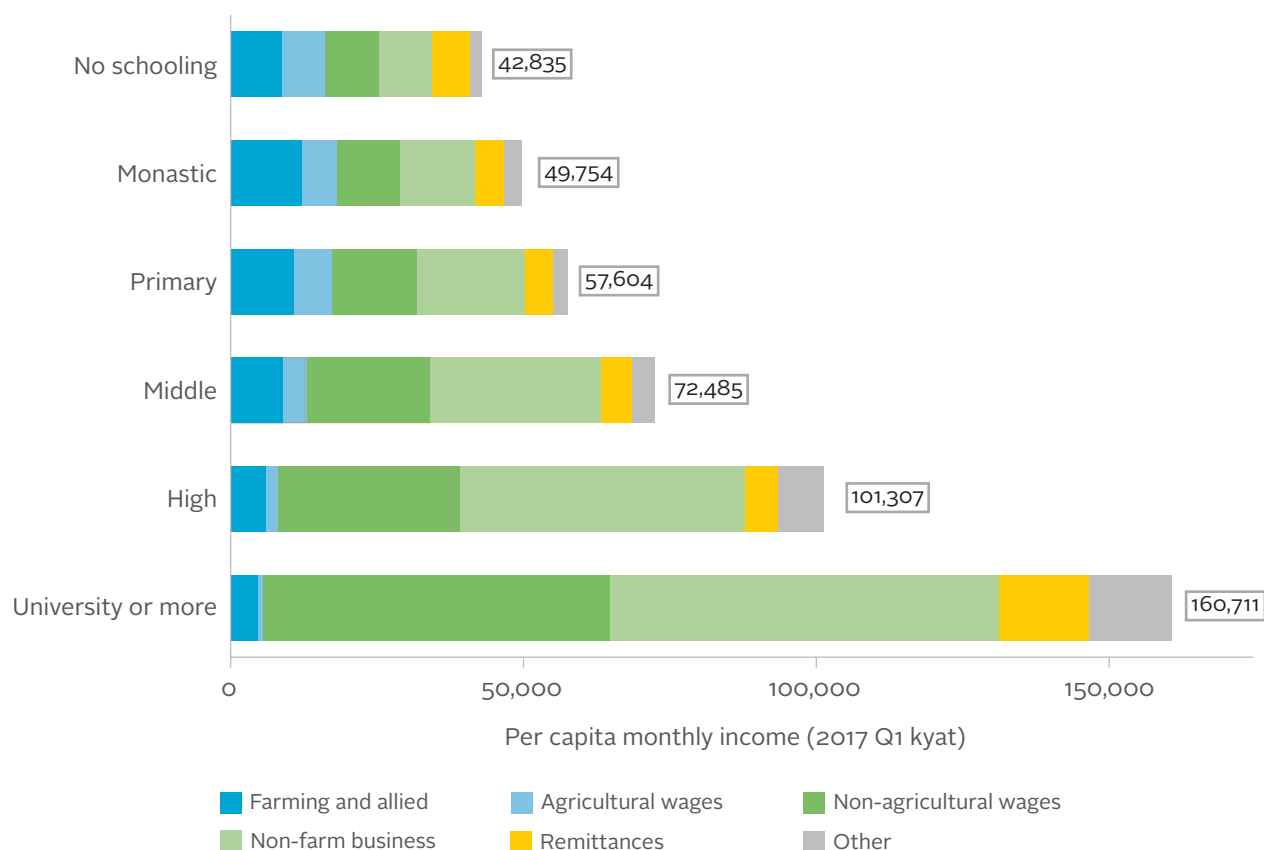
Note: Q1 to Q5 represents per adult equivalent consumption quintiles with Q1=poorest quintile and Q5=wealthiest quintile.

Source: 2017 MLCS

Education is important productive capital for increasing income. Households may improve their income-generating capabilities with productive assets such as education or land ownership. In general, income is positively correlated with the head of household's educational attainment. Members of households whose head has at least some higher education have, on average, 160,711 kyat per capita in monthly income – almost four times more than members of households whose head has no education (Figure 9-8). The share of income earned from non-agricultural activities such as non-agricultural labour or non-farm business is also positively correlated with education: On average, households with a head who has some education beyond high school obtain 78 percent of their total income from non-agricultural sources, compared to 43 percent among households with an uneducated head. On the other hand, the share of income attributed to agricultural activities is less than 4 percent among households with a head who has some higher education, while it is 37 percent in households whose head has no education.

Figure 9-8

Per capita monthly income, by household head's education (in 2017 quarter 1 kyat)



Notes: Values are reported in spatially adjusted 2017 quarter 1 kyat.

Source: 2017 MLCS

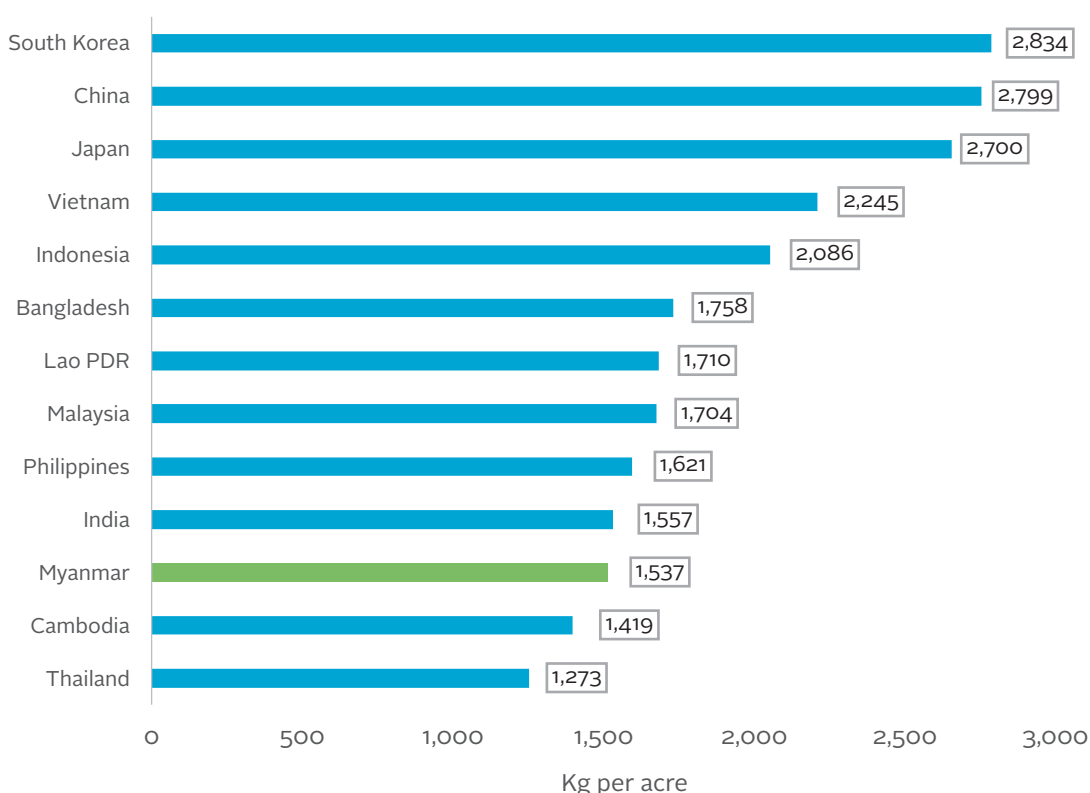
Income-generating activities and their contribution to total income

Farming and allied activities

Despite strong participation in farming and allied activities, income from these activities is low relative to other sources. Although 57.9 percent of households partake in farming activities, farming income comprises only 14.1 percent of total per capita income in Myanmar. Farming, particularly crop production, is highly seasonal and susceptible to adverse weather events. Farmers may thus find it difficult to cultivate year-round: In 2017, one-third of farmers cultivate in just one season, mainly the wet season. Compared to households that cultivate in two seasons or year-round, households that cultivate in one season are 53.6 percent more likely to be engaged in agricultural labour and equally likely to work in non-agriculture. This suggests that during off-seasons, farming households resort to agricultural labour, which is associated with low wages. Crop diversification is also low: Rice remains the crop of choice among most farmers, with 62.7 percent of farmers cultivating rice.

Figure 9-9

Rice yields per acre of land, by country in 2017 (kg per acre)



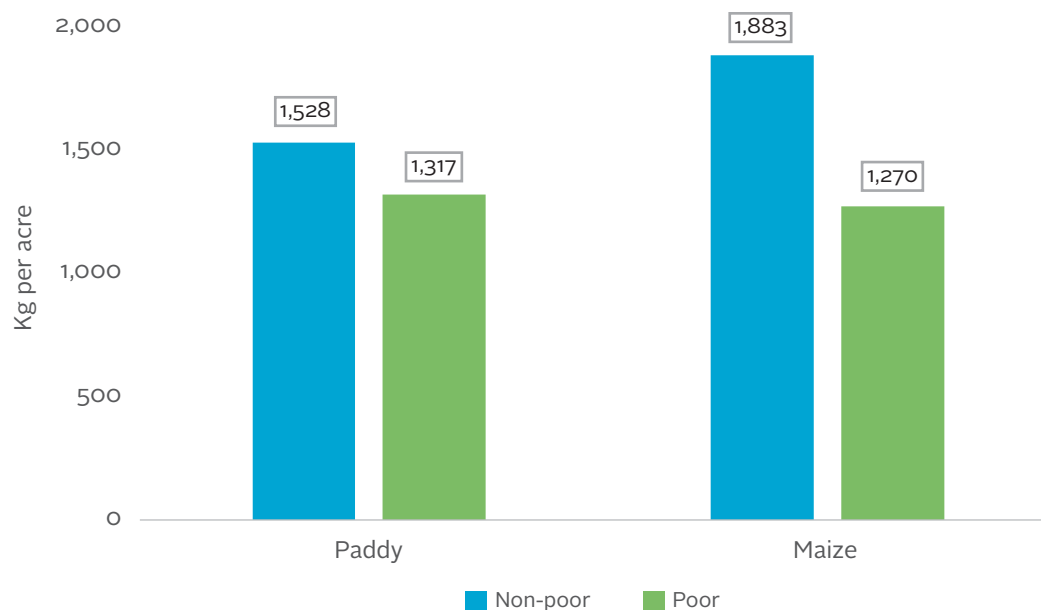
Source: FAOSTAT

Agricultural productivity in Myanmar is low compared to other countries in the EAP region and is lower among poor farmers compared to non-poor farmers in 2017. Although rice is the most commonly produced crop in Myanmar, rice yields per acre of land are significantly lower than they are in other countries in the region (Figure 9-9). In 2017, farmers who are classified as poor have 14 percent lower rice yields per acre than non-poor farmers, and about 48 percent lower maize yields per acre of land (Figure 9-10). Poor farmers are also 7.5 percent less likely to own land compared to non-poor farmers, and among poor farmers who do own land, their average land size is 34.2 percent smaller than that of non-poor farmers (Table 9-5).

Lower agricultural productivity is linked to limited access to markets and productive assets such as agricultural machinery and fertiliser. Controlling for geographic differences and other household characteristics, use of a tractor or power tiller is by far the most significant determinant of rice productivity: On average, farmers who utilize these machineries produce 300.7 kilograms more rice per acre of land than those who do not (Table I-3 in Annex I). Having a market less than 3 miles away and use of inorganic fertiliser are also positive correlates of higher rice yields. Poor farmers are less likely to use machinery and fertiliser, and have limited access to markets compared to non-poor farmers. These differences, together with land area and geographic differences, explain nearly half of the lower average productivity among poor farmers.

Figure 9-10

Paddy and maize yields per acre of land, by poverty status (kg/acre)



Source: 2017 MLCS

Table 9-5

Access to productive assets and agricultural inputs/technology among farmers

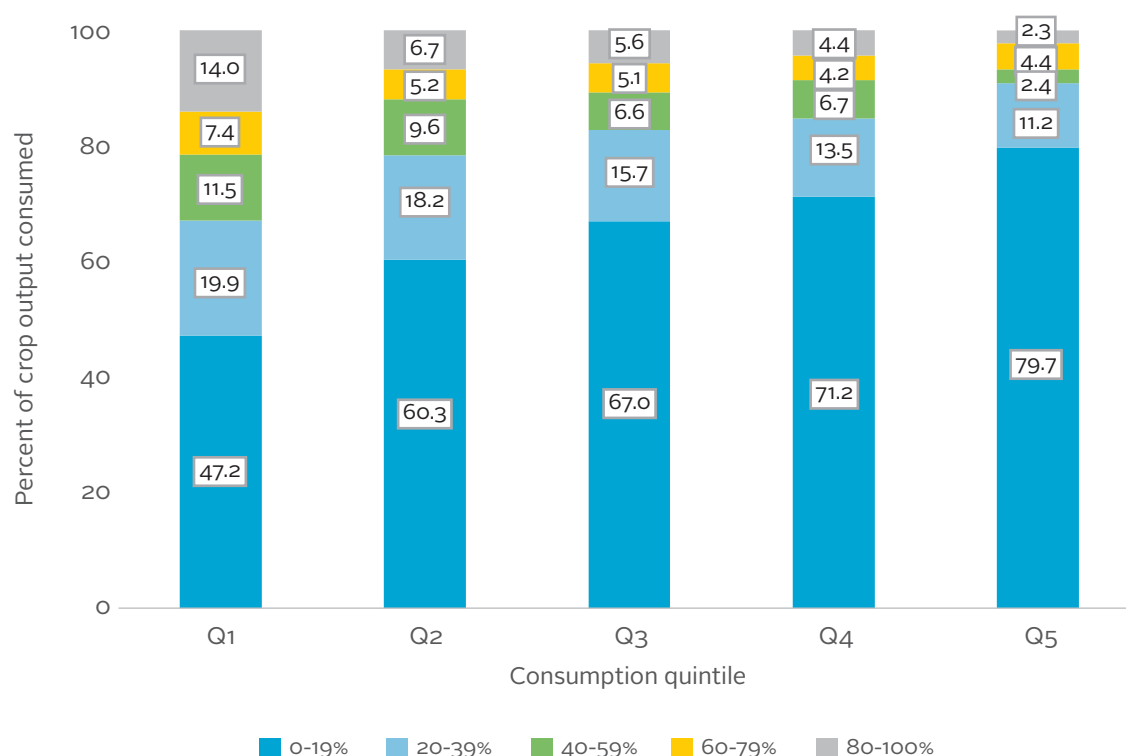
	Union	Non-poor	Poor
Owens land	86.0	87.5	81.0
Average land area (acres)	6.7	7.3	4.8
Has irrigated plot	32.4	34.6	24.9
Dry season	50.2	51.7	43.8
Wet season	29.2	31.3	22.1
Cool season	35.6	36.9	30.3
Uses fertilizer	79.8	83.3	68.7
Organic fertilizer	37.0	38.8	31.5
Inorganic fertilizer	72.5	76.6	59.5
Uses pesticides	57.6	61.8	43.9
Uses agricultural machinery	31.1	35.1	17.8
Market is less than 3 miles away	39.7	40.6	36.7

Source: 2017 MLCS

Poorer farming households are less likely to sell and thus earn income from their harvest. On average, poor cultivating households consume about 30.3 percent of their crop harvest, compared to 18.2 percent among non-poor cultivating households. In general, the share of crop harvest consumed decreases with welfare level (Figure 9-11): More than half of farming households in the bottom quintile consume at least 20 percent of their harvest, while just two in ten farming households in the top quintile consume at least 20 percent of their crop output. On the other hand, non-poor farmers sell 20.3 percent more of their harvest compared to poor farmers, and the share of harvest sold increases with welfare levels.

Figure 9-11

Percentage of crop output consumed by farming households, by consumption quintile



Note: Share of crop output consumed is calculated by aggregating the total value of the crop harvested and taking the value consumed out of the total. Q1 to Q5 represents per adult equivalent consumption quintiles with Q1=poorest quintile and Q5=wealthiest quintile.

Source: 2017 MLCS

Salaried and wage labour

Relative to household participation rates in wage labour, the share of income derived from wages, particularly agricultural wages, is low. Nearly six in ten households have at least one member engaged in wage labour, yet the share of household income attributed to wages is just 35.5 percent. As was shown in Chapter 7, most wage-earners work in skilled agricultural jobs, craft and related trades, or elementary occupations such as cleaners, casual labourers, or street vendors. Almost 80 percent of employed individuals work in these occupations, and in general, they tend to have relatively low wages. Thus, high employment in low-paying jobs may limit the share of income that is derived from wage labour.

Non-farm business

Profits from non-farm businesses occupy the largest share of household income, both in urban and rural areas. Non-farm business profits account for more than one-third of household income in Myanmar and almost half of income in urban areas. Ownership of one or more non-farm businesses is a significant determinant of income. Controlling for geographic differences, operation of a non-farm business is associated with an additional 32,800 kyat in per capita monthly income (Table I-2 in Annex I).

Table 9-6

Characteristics of non-farm businesses, by residential area and poverty status (in percent)

	Union	Urban	Rural	Non-poor	Poor
Industry					
Retail and wholesale trade	45.3	44.9	45.5	45.6	42.9
Transportation, food services, information	19.2	22.2	16.8	19.5	16.7
Manufacturing	15.6	10.7	19.4	14.4	23.9
Construction	2.8	2.9	2.6	2.7	3.0
Education, health, social work	2.4	3.0	1.9	2.5	1.5
Mining	1.3	0.4	1.9	1.1	2.1
Financial and professional services	1.1	1.9	0.5	1.2	0.3
Other	12.5	13.9	11.4	12.9	9.6
Legally registered	14.1	23.1	7.2	15.4	5.0
Has paid employees	14.8	18.8	11.7	16.0	6.1
Average months in operation in last year	9.9	10.6	9.3	9.9	9.4

Source: 2017 MLCS

Many non-farm businesses in Myanmar remain small and informal. Non-farm businesses may range from a single-person enterprise to a large company with hired employees. As of 2017, only 14.1 percent of non-farm businesses are legally registered, and 14.8 percent have either full-time or part-time paid employees (Table 9-6). The average business is in operation for about 10 months out of the year, with operation being about a month longer in urban areas than in rural areas. Nearly half of non-farm businesses in 2017 are involved in retail or wholesale trade. Another 19.2 percent are involved in transportation, food, or information services. Profits are highest among businesses that provided financial or other professional services followed by businesses involved in construction work (Table 9-7). Despite high profits, these industries account for less than five percent of businesses.

Table 9-7

Characteristics of non-farm businesses, by industry

	Legally registered (%)	Has hired employees (%)	Average months in operation in last year	Median annual profits ('000 kyat)
Mining	10.3	24.8	7.2	960
Manufacturing	10.6	19.1	9.8	900
Construction	14.5	68.4	8.9	2,790
Wholesale and retail trade	12.6	12.1	10.1	1,200
Transportation, food services, information	21.7	11.2	9.9	1,431
Financial and professional services	21.3	5.3	11.2	2,982
Education, health, social work	16.7	10.7	10.3	1,368
Other	11.5	13.4	9.5	1,080

Note: Profits are calculated as returns net of all costs and are reported in 2017 quarter 1 kyat.

Source: 2017 MLCS

Remittances

Remittances account for less than a tenth of household income in Myanmar. One in five households receive remittances, with the majority receiving remittances from elsewhere in Myanmar. Urban and rural households are equally likely to receive remittances, although they comprise a 60.1 percent larger share of rural incomes than urban incomes. Households headed by a female are 64.2 percent more likely to receive remittances than those headed by a male, and remittances make up a larger share of income among female-headed households. Compared to the poor, the non-poor are more likely to receive remittances, particularly international remittances, indicating that remittances could be one way to improve household welfare.

Table 9-8

Sending location of remittances among households receiving remittances, by state/region (in percent)

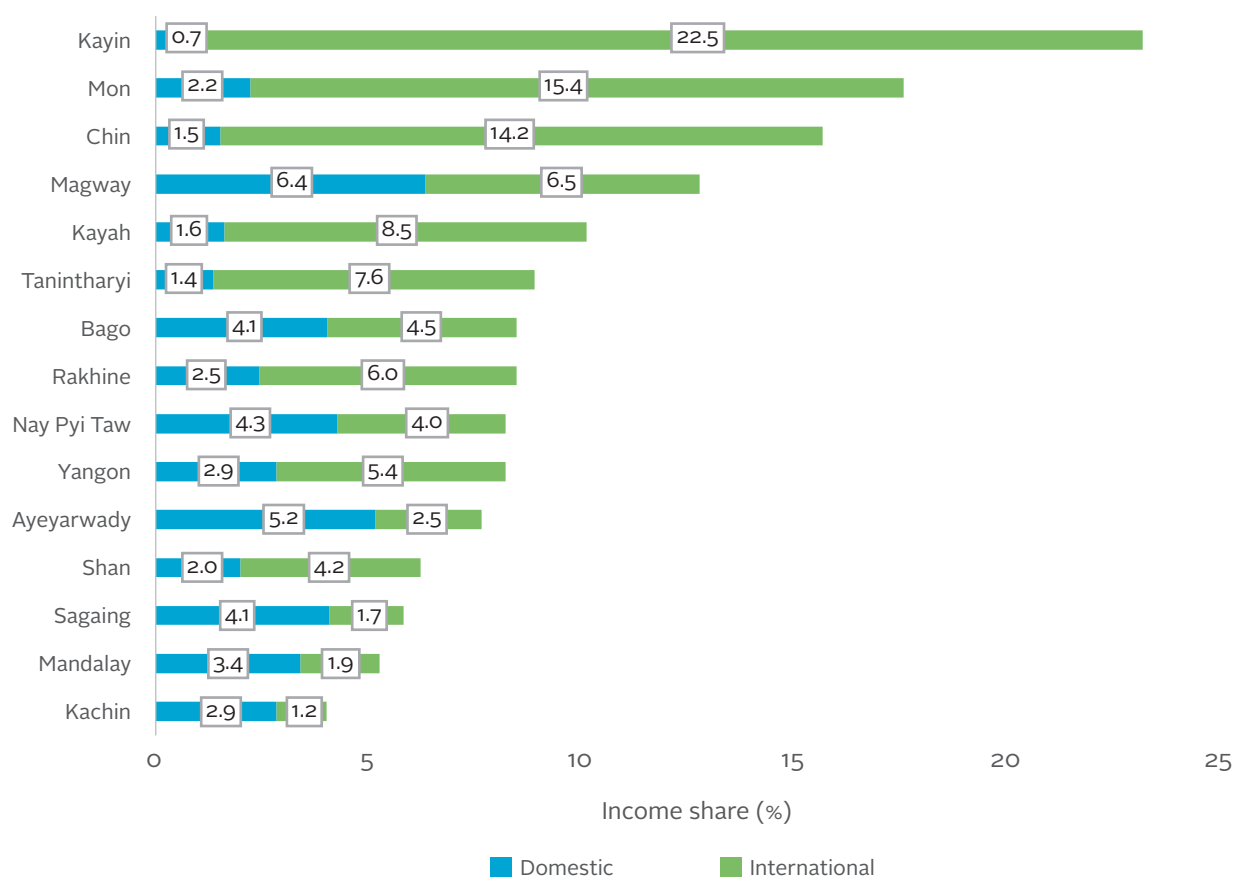
	Yangon	Other Myanmar	Thailand/Malaysia	Other Asia	USA	Other
Kachin	9.9	75.9	6.0	12.3	1.2	0.0
Kayah	4.9	44.6	30.5	8.7	10.5	4.0
Kayin	1.8	4.9	93.7	1.6	0.0	0.2
Chin	3.4	16.9	32.2	9.7	40.9	14.7
Sagaing	14.5	70.4	8.8	6.5	4.0	0.4
Tanintharyi	4.1	23.8	77.9	1.9	0.0	0.0
Bago	26.0	45.4	36.1	1.6	0.0	0.4
Magway	28.1	56.0	16.9	5.9	0.3	0.7
Mandalay	23.8	66.2	13.4	3.2	0.0	0.4
Mon	6.2	18.7	78.2	3.8	0.0	0.8
Rakhine	28.1	23.6	50.2	6.3	0.9	0.0
Yangon	48.0	28.6	11.3	11.9	1.5	4.8
Shan	7.5	37.9	47.3	10.8	0.4	0.0
Ayeyarwady	47.4	39.1	15.2	3.4	0.0	0.0
Nay Pyi Taw	21.4	55.4	25.8	3.2	0.0	0.0

Source: 2017 MLCS

Thailand and Malaysia are the most common origins of international remittances, and households in states/regions located near these countries are more likely to receive remittances. States/Regions such as Mon State, Kayin State, and Tanintharyi Region, which are located close to neighbouring countries such as Thailand and Malaysia, have significantly larger shares of households receiving remittances from abroad (Table 9-8).⁶¹ Other states/regions further from Thailand are more likely to receive domestic remittances. For states/regions close to Thailand, remittances make up a significant portion of household income. For example, in Kayin State, remittances comprise 23.3 percent of average income, while in Mon State remittances account for 17.6 percent of income (Figure 9-12).

Figure 9-12

Average household income share from remittances, by state/region (in percent)



Source: 2017 MLCS

61 Chin State also has a relatively large proportion of households with international remitters, but the majority of these remittances come from the United States.

Other income

Other income accounts for less than six percent of average per capita income in Myanmar. This category includes rents received for land, public transfers, development and social aid, as well as other miscellaneous sources such as private assistance from friends or returns from financial investments. Even though it makes up a relatively small portion of income, about one in three households receive income from one or more of these sources.

Main takeaways and implications

This chapter shows that more than half of households in Myanmar are engaged in farming and allied activities, yet productivity and ownership of/access to productive assets such as agricultural machinery and fertiliser remain low. In addition, poverty and lower welfare are associated with relatively high engagement in agriculture, particularly agricultural labour, which is characterised by high seasonality and vulnerability. Ownership of non-farm business and higher education are the two most significant correlates of higher income.

These findings have two main implications:

- i. Improving access to fertiliser and agricultural machinery such as tractors and power tillers can help boost crop yields and income. In a similar way, greater access to markets can allow farmers to sell their crop to generate income.
- ii. Diversification of income sources, particularly to include more non-agricultural activities and to move away from casual or seasonal activities, can protect households against income volatility and help secure stable employment in higher-earning activities. Improving education can be one tool that provides households the productive capital to increase their income.





10.

CONCLUSION

This Socio-Economic Report provides a composite analysis of living conditions in Myanmar using the 2017 Myanmar Living Conditions Survey (MLCS). The CSO in the MOPFI, with technical and financial support from the UNDP and the World Bank, carried out the MLCS, a comprehensive survey of living conditions in Myanmar in 2017. The survey is representative of Myanmar, its states/regions, and urban and rural areas of the country. The 2017 MLCS is a rich questionnaire documenting people's productive activities, how much income they earn, and how they use this to meet food, housing, health, education, and their other needs. The MLCS was designed to achieve the following objectives: (1) to produce an assessment of poverty and living conditions; (2) to provide core data inputs – weights and private consumption expenditures – for the CPI baskets and the system of national accounts; and (3) to monitor data needs and selected SDG targets.

The conclusion summarises the evidence presented on the **three defining questions of this report, which aim to:** i) describe poverty in Myanmar; ii) assess the capital base of households; and iii) explain what households do for a living.

Monetary poverty in Myanmar halved between 2005 and 2017, but one in four people in Myanmar still lives in poverty in 2017. In terms of extreme poverty, which is measured using the international poverty line at USD 1.90 in 2011 PPP, Myanmar performs well although when considering higher international benchmarks, Myanmar fares comparatively poorly, which reflects the large share of the population who live on the precipice of poverty. Poor households tend to have more members, particularly children below the age of 15, which raises concerns about the intergenerational transmission of poverty.

Poverty is a multifaceted phenomenon that has non-monetary dimensions in addition to monetary ones. SDG1 calls for ending poverty in all its forms. Poverty alleviation thus requires a comprehensive understanding of poverty and a multidimensional approach that encompasses nonmonetary aspects, namely access to basic infrastructure and services such as health, education, water and sanitation, electricity, and roads.

Poor households in Myanmar have relatively limited access to the services required to build up human capital. Educational enrolment after primary education is generally low, but remains unequal across consumption quintiles and residential areas, as children in poorer households or in rural areas are less likely to go to middle or high school. Moreover, the rate of school dropout and child labour is higher for children in the bottom quintiles and in rural areas. Despite the significant value of a high school or university education, attainment beyond the middle school level remains low and expensive to achieve. Access to health is similarly unequal with the poor being less likely to use healthcare services when ill or injured. When the poor encounter an illness or injury, the costs involved in trying to remedy the problem can become a major burden to their household budget, which is otherwise largely devoted to food. To cope with these high medical expenses, poorer households often borrow, which can potentially throw them into a debt trap.

Poor households in Myanmar are significantly less likely to have access to key services that would improve their living conditions. Like access to education and health services, improved access to water and access to improved sanitation remain unequal across the welfare distribution. The poor are less likely to have improved access to water and more likely to practice open defecation, which increases the risk of dying of enteric diseases for under-five children. In addition, although the poor use clean energy sources for lighting (37.7 percent are using solar panel for lighting), they rely heavily on firewood (83 percent of households in the bottom consumption quintile) and charcoal (5 percent of households in the bottom consumption quintile) for cooking increasing their risk of contracting respiratory diseases.

In 2017, usage of formal financial services is low, particularly in rural areas and among the poor. Access to formal financial institutions such as banks and microfinance organisations is significantly higher in urban areas than in rural areas. Although village funds, cooperatives, and other local credit unions have filled in some of the gaps in rural areas, usage of other informal sources of credit such as moneylenders is still high in both urban and rural areas. Moreover, only 17% of households in Myanmar have a bank account, with poorer households significantly less likely to own an account. A lack of savings puts the poor and the vulnerable at greater risk of a debt trap, as they are more likely to borrow rather than use savings in order to cope with a negative shock.

The poor work mainly in agricultural activities, particularly agricultural labour, which are associated with low earnings. Agriculture is characterised by high seasonality and vulnerability, which contribute to high rates of labour underutilisation among individuals engaged in this sector. Sectoral diversification is more common for wealthier households, and participation in non-agricultural activities tends to grow with welfare. In addition, gender roles are clearly visible in the labour force: most women are tasked with overseeing household chores and children, and are largely excluded from participating in the labour force. When they are employed, women are more likely than men to be working in unremunerated jobs, have significantly lower wages than men, and have higher rates of labour underutilisation. Evidence suggests that only university education closes the participation and wage gap between men and women.

Spatial disparities in labour market opportunities and wages influence the decision to migrate, especially among the poor. Permanent migration flows are influenced by spatial inequalities in employment opportunities and wages, with the largest numbers moving to Yangon Region. Temporary migration is also largely motivated by economic reasons, with more than half of temporary migrants in 2017 relocating for employment. When poorer people migrate temporarily, they are typically looking for work within Myanmar, while wealthier individuals who become temporary migrants do so to either pursue their studies or seek work abroad.

These findings have five main implications:

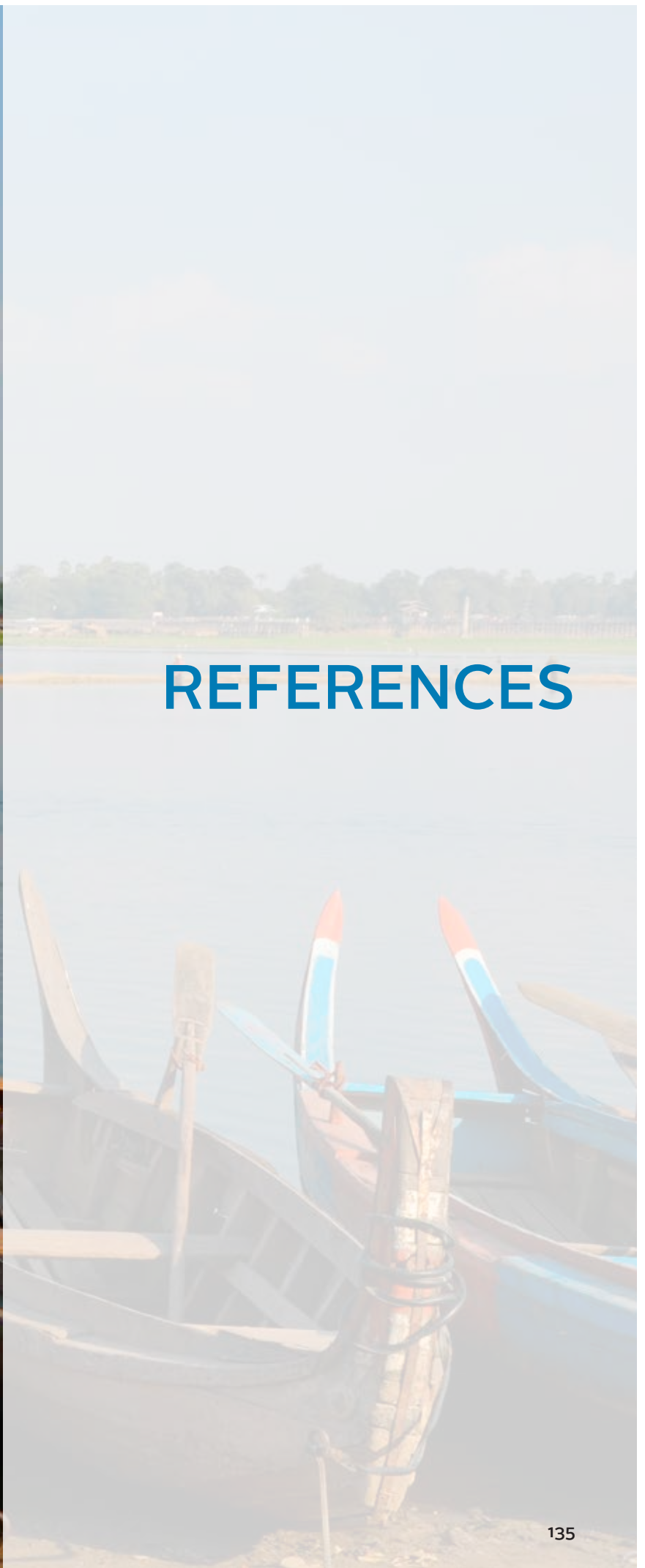
- 1. Reducing barriers to education is important for poverty reduction and improving welfare.** Education gives individuals, especially women, significantly greater opportunities to secure higher-paying, permanent, and formal employment. In addition, education offers the poor the ability to diversify their activities away from low-skill labour, especially in agriculture, to higher-skill, higher-wage jobs in the non-agricultural sector. Higher educational attainment can also help increase financial literacy and the use of formal financial services and products. Accessibility of schools, particularly those that offer high-school grades, and educational costs are substantial barriers for many children to continue their education. Parental preferences or perceptions about education may also influence a child's enrolment in school. Therefore, targeted interventions in education, particularly related to the accessibility and affordability of schools are necessary for increasing enrolment, especially in rural and remote areas of Myanmar.
- 2. Improving the accessibility and affordability of comprehensive healthcare services is vital for sustainable development.** Health plays a central role in achieving the SDGs and is both a precondition and an outcome of economic development. Much of the rural population and the poor have limited access to hospitals, which offer a wider range of medical services compared to health centres or posts. The poor are also more likely to incur a financial burden from usage of healthcare facilities. It is therefore critical to improve the accessibility, affordability, and quality of comprehensive healthcare services in rural and remote areas, where many of the poor reside.

3. **Diversification away from agriculture to more productive activities in the non-agricultural sector can help improve household welfare.** Labour market activities in non-agriculture, particularly services, are associated with significantly higher returns than agricultural activities. Ownership of a non-farm enterprise is also associated with substantially higher household income and welfare. Households engaged exclusively in agricultural activities have the lowest average per capita income compared to households whose members work in non-agriculture exclusively or non-agriculture together with agriculture. Thus, encouraging the development of more diversified income sources with a greater reliance on non-agricultural activities could help households secure greater income throughout the year.
4. **Given high engagement in agriculture, investments in agriculture are necessary to increase productivity, especially for poor farmers.** Agricultural productivity in Myanmar is low compared to other countries in the EAP region. Yet agricultural activities dominate the labour market, and most of the poor are primarily engaged in these activities. Low productivity can be largely attributed to a lack of technology such as machinery, fertiliser, and irrigation, as well as limited access to markets and vulnerability to climatic shocks. Thus, interventions that improve these channels can help bolster agricultural productivity and improve the welfare of agricultural households.
5. **Targeted interventions for states/regions that are lagging behind in terms of access to key services and facilities can foster more balanced economic development.** Beyond urban-rural differences in access to schools, hospitals, formal financial institutions, and other basic services and facilities, significant disparities exist across states/regions, even after controlling for the share of the population residing in urban or rural areas. Some areas are deprived in multiple dimensions, which is manifested through severe poverty. Targeted interventions in such areas can help promote equitable growth in Myanmar.





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ANNEXES

Annex A – Summary of SDG Indicators covered by the 2017 MLCS reports

SDG Indicator	Description	Chapter
1.1.1	Proportion of population below international poverty line disaggregated by sex, age group, employment status, and geographical location (U/R)	Chapter 2 but no disaggregation.
1.2.1	Proportion of population living below national poverty line, disaggregated by sex and age group	Chapter 2 and Poverty Report
4.3.1	Participation rate of youth and adults in formal and non-formal education and training in the last 12 months, by sex	Chapter 3
4.5.1	Parity indices (female/male, rural/urban, bottom/top wealth quintile, and others)	Chapter 3
4.6.1	Percentage of the population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex	Key Indicators Report
5.b.1	Proportion of Individuals who use a mobile phone, by sex	Key Indicators Report
6.1.1	Percentage of population using safely managed drinking water services	Chapter 5 and Key Indicators Report but no data on water quality
6.2.1	Proportion of population using safely managed sanitation services	Chapter 5 and Key Indicators Report but no data on quality
7.1.1	Proportion of population with electricity access (%)	Chapter 5 and Key Indicators Report
8.3.1	Proportion of informal employment in non-agricultural employment by sex	Chapter 7 although no definition of informality
8.5.2	Unemployment rate by sex, age-group, and disability	Chapter 7 but no disability
8.6.1	Proportion of youth (15-24) not in education, employment, or training (NEET)	Chapter 7
8.7.1	Proportion and number of children aged 5-17 years engaged in child labour, per sex and age group	Chapter 7
9.2.2	Manufacturing employment, as percent of total employment	Chapter 8

Annex B for chapter 2

Table B-1

Child poverty profile, by residential area, state/region and gender (in percent)

	Share of the total population aged 0-17	Poverty rate (ages 0-17)
Union	100.0	31.2
Residence area		
Urban	24.8	15.4
Rural	75.2	36.4
State/Region		
Kachin State	3.8	41.7
Kayah State	0.7	38.2
Kayin State	3.7	31.4
Chin State	1.4	63.4
Sagaing Region	9.8	37.4
Tanintharyi Region	3.4	15.6
Bago Region	10.3	21.2
Magway Region	7.0	41.8
Mandalay Region	10.2	16.5
Mon State	3.9	23.8
Rakhine State	6.3	49.1
Yangon Region	12.6	20.1
Shan State	12.2	34.5
Ayeyarwady Region	12.4	39.6
Nay Pyi Taw Council	2.3	28.8
Gender		
Boys	50.2	31.1
Girls	49.8	31.3

Note: Outreach activities for the 2017 MLCS took place over the 12 months of data collection, but it was not possible to conduct interviews in two townships of Northern Rakhine State (Buthidaung and Maungdaw) and the Wa Self-Administered Division. The survey only includes conventional households.

Source: 2017 MLCS

Table B-2

Correlates of welfare (poverty dummy and log consumption)

	Poor (0/1)	Log of per adult equivalent consumption
Urban	-0.067*** [0.016]	0.126*** [0.020]
Household composition		
Number of children aged 0-5	0.089*** [0.007]	-0.113*** [0.009]
Number of children aged 6-14	0.060*** [0.005]	-0.094*** [0.005]
Number of adults aged 15-59	0.022*** [0.004]	-0.038*** [0.004]
Number of adults aged 60 plus	0.021** [0.010]	-0.061*** [0.010]
Household head characteristics		
Age	0 [0.001]	0.002*** [0.001]
Female	-0.003 [0.021]	-0.006 [0.021]
Married	-0.019 [0.020]	0.018 [0.021]
Buddhist	-0.018 [0.020]	0.017 [0.027]
Disabled	0.080*** [0.023]	-0.117*** [0.021]
Has ID card	-0.119** [0.020]	0.153*** [0.022]
Household head's educational attainment (ref. No schooling)		
Monastic	-0.028 [0.020]	0.013 [0.023]
Primary school	-0.057*** [0.017]	0.069*** [0.019]
Middle school	-0.103*** [0.020]	0.145*** [0.023]
High school	-0.162*** [0.023]	0.258*** [0.024]
University or more	-0.322*** [0.037]	0.563*** [0.035]
Household sectoral participation (ref. Agriculture only)		
Agriculture and non-agriculture	-0.042*** [0.012]	0.091*** [0.013]
Non-agriculture only	-0.070*** [0.015]	0.131*** [0.018]
No working members	-0.056** [0.026]	0.167*** [0.028]

	Poor (0/1)	Log of per adult equivalent consumption
Accessibility		
Community has a market	-0.035**	0.042**
	[0.014]	[0.019]
Community has a main road	-0.025*	0.026
	[0.013]	[0.016]
State/Region (ref. Yangon)		
Kachin	0.101***	-0.187***
	[0.034]	[0.036]
Kayah	0.013	-0.025
	[0.034]	[0.042]
Kayin	-0.093***	0.083***
	[0.026]	[0.030]
Chin	0.209***	-0.311***
	[0.036]	[0.042]
Sagaing	0.029	-0.079**
	[0.030]	[0.034]
Tanintharyi	-0.150***	0.263***
	[0.024]	[0.034]
Bago	-0.091***	0.115***
	[0.024]	[0.031]
Magway	0.089***	-0.100***
	[0.029]	[0.033]
Mandalay	-0.088***	0.080**
	[0.025]	[0.031]
Mon	-0.057**	0.032
	[0.027]	[0.034]
Rakhine	0.098***	-0.142***
	[0.028]	[0.028]
Shan	-0.024	0.032
	[0.028]	[0.036]
Ayeyarwady	0.060**	-0.081***
	[0.025]	[0.030]
Nay Pyi Taw	-0.002	0.001
	[0.025]	[0.030]
R-squared		0.330
Observations	13730	13730

Note: Column 1 reports marginal effects from a probit regression. Column 2 reports coefficients from an OLS regression. Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1

Using international poverty lines

The international poverty line is set by the World Bank for the purpose of global poverty monitoring and measuring progress on global goals set by the World Bank, the United Nations and other development partners.

Measuring poverty requires to first establish cost-of-living comparability across countries using an adjustment factor, the Purchasing Power Parity (PPP) factor, in order to render all incomes comparable – i.e. expressed in the same unit. The second component is a threshold, an international poverty line, that can be then converted into comparable terms across countries. The third element is a welfare aggregate (income or consumption) adjusted for household size.

To assure cost-of-living comparability across countries, the International Comparison Program (ICP), an independent statistical program housed within the World Bank's Development Data Group, establishes PPPs, which are free from exchange rate distortions but are instead based on the comparison of volumes of final goods and services between economies. The PPP of currency of an economy corresponds to the number of currency units required to purchase a basket of goods and services that can be purchased with one unit of the currency of a reference or base country (World Bank, 2007).

PPPs are used to compare household consumption and income with a common global poverty line expressed in US dollars, since nominal exchange rates do not accurately capture differences in costs of living across countries.

Myanmar joined the ICP for the first time in the 2011 round. Myanmar's ICP data was collected by conducting nationwide price surveys in urban as well as rural areas. From the 2011 ICP data, Myanmar's consumption purchasing power parity exchange rate (PPP) is estimated to be 320.6 kyat per US dollar in 2011.

As of 2015, the international poverty line (IPL) in PPP terms has been set to USD 1.90 in 2011 PPP to account for the new data emerging from the 2011 PPP round, which captured updated data on global relative prices. The USD 1.90 in 2011 PPP line was derived by: (i) inflating the 2005 values of the 15 country lines to 2011 using domestic Consumer Price Indexes (CPIs), and (ii) converting the resulting values to US dollars (in 2011 prices) using the 2011 PPPs for these 15 countries.

During this round, two IPLs were added: a lower middle-income class poverty line at USD 3.20 in 2011 PPP and an upper middle-income class poverty line at USD 5.50 in 2011 PPP to account for the differences in the set of goods and services that countries need to reduce poverty and to allow for cross-country comparisons both within and across developing regions.⁶²

International poverty measurement uses income or expenditure per capita as the welfare aggregate in a given country.

⁶² <https://blogs.worldbank.org/developmenttalk/richer-array-international-poverty-lines>

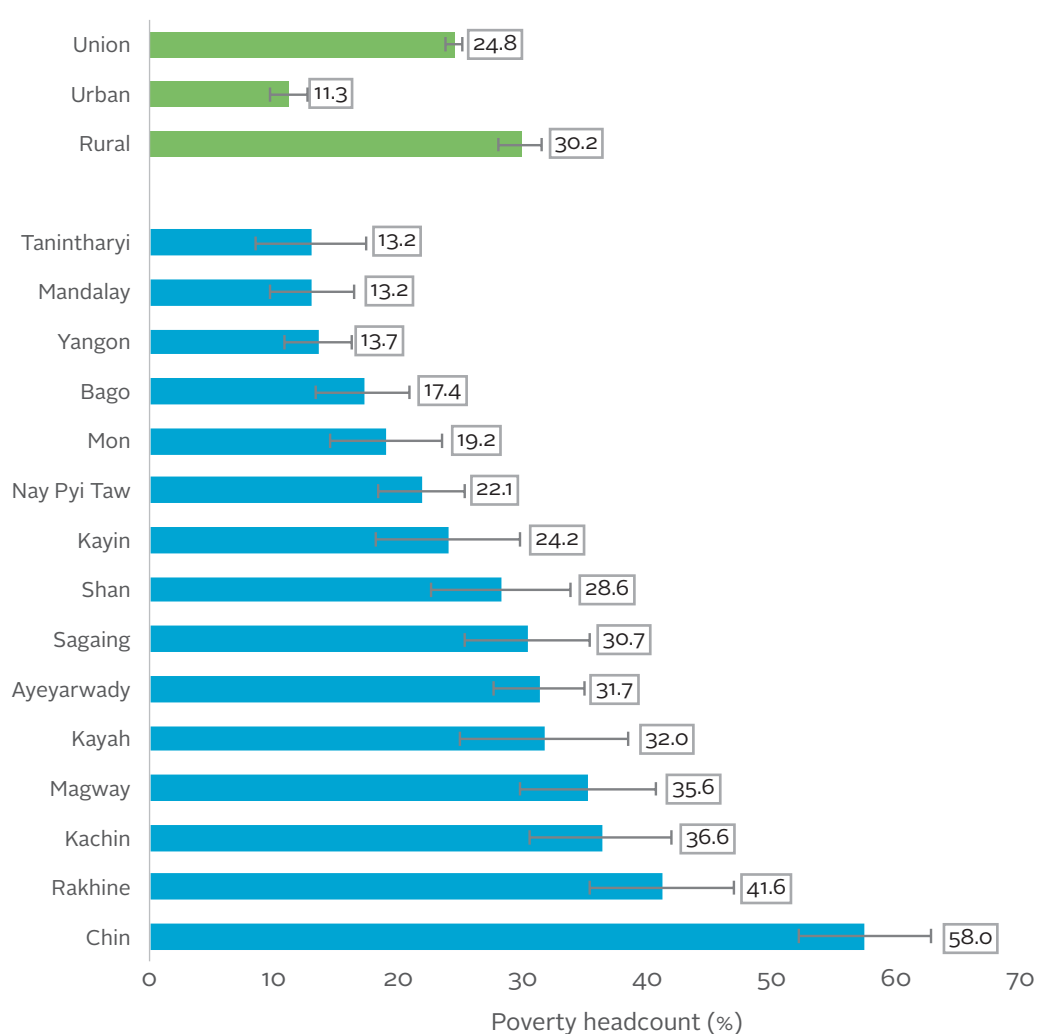
Traditionally to estimate poverty with an IPL, the following steps apply: 1) deflate the welfare aggregate to 2011, using the national CPI; 2) convert the 2011-deflated aggregate to US Dollars using the PPP conversion-factor; and 3) compare the resulting distribution with a reference poverty line, set at USD 1.90 a day. Formally, a household is defined as poor if:

$$Income_y^{2011PPP} (\$) = Income_y * \left(\frac{CPI_{2011}}{CPI_y} \right) * \left(\frac{1}{PPP_{2011}} \right) < \$1.90$$

with $Income_y$ be the welfare aggregate (per capita income or expenditure) in a given country in year y , expressed in local currency unit (LCU).

Figure B-1

Poverty headcount, by residential area and state/region (in percent)



Note: Outreach activities for the 2017 MLCS took place over the 12 months of data collection, but it was not possible to conduct interviews in two townships of Northern Rakhine State (Buthidaung and Maungdaw) and the Wa Self-Administered Division. The survey only includes conventional households. The error bars denote the 95 percent confidence intervals.

Source: 2017 MLCS

Annex C for chapter 3

Table C-1

Correlates of primary, middle and high school enrolment, probit model, marginal effects

	Total net primary enrolment	Total net middle enrolment	Total net high enrolment
Female	0.011	0.047***	0.088***
	[0.007]	[0.014]	[0.021]
Urban	-0.017	0.002	0.001
	[0.012]	[0.021]	[0.029]
Number of younger siblings aged 0-15	-0.009*	-0.040***	-0.022**
	[0.005]	[0.007]	[0.009]
Number of older siblings aged 0-15	-0.012***	-0.046***	-0.223***
	[0.004]	[0.011]	[0.062]
Primary school exists in community	0.033*		
	[0.019]		
Middle school is in close proximity		0.104***	
		[0.026]	
High school is in close proximity			0.089***
			[0.028]
School age (ref. Age 5)			
Age 6	0.081***		
	[0.015]		
Age 7	0.102***		
	[0.014]		
Age 8	0.097***		
	[0.015]		
Age 9	0.102***		
	[0.015]		
School age (ref. Age 10)			
Age 11		0.194***	
		[0.021]	
Age 12		0.214***	
		[0.021]	
Age 13		0.197***	
		[0.021]	
School age (ref. Age 14)			
Age 15			0.056**
			[0.022]

	Total net primary enrolment	Total net middle enrolment	Total net high enrolment
Mother's educational attainment (ref. No education)			
Monastic	-0.033 [0.041]	0.158*** [0.045]	0.011 [0.084]
Below primary	0.032*** [0.012]	0.140*** [0.029]	0.167*** [0.039]
Primary	0.021 [0.014]	0.197*** [0.031]	0.245*** [0.044]
Middle	0.047*** [0.015]	0.304*** [0.034]	0.391*** [0.057]
High	0.058*** [0.019]	0.305*** [0.048]	0.483*** [0.100]
Tertiary	0.021 [0.025]	0.296*** [0.041]	0.487*** [0.069]
Mother does not live in household	-0.001 [0.013]	0.107*** [0.032]	0.167*** [0.046]
Father's educational attainment (ref. No education)			
Monastic	0.082*** [0.025]	0.090** [0.042]	0.086 [0.058]
Below primary	0.092*** [0.024]	0.084** [0.038]	0.061 [0.054]
Primary	0.085*** [0.025]	0.125*** [0.040]	0.142*** [0.052]
Middle	0.098*** [0.026]	0.206*** [0.042]	0.265*** [0.064]
High	0.104*** [0.028]	0.115* [0.070]	0.346** [0.137]
Tertiary	0.091*** [0.031]	0.182*** [0.056]	0.269*** [0.089]
Father does not live in household	0.063*** [0.018]	0.080** [0.036]	0.078 [0.053]
Consumption quintile (ref. Quintile 1)			
Quintile 2	0.025* [0.013]	0.062*** [0.023]	0.143*** [0.034]
Quintile 3	0.031** [0.012]	0.120*** [0.023]	0.185*** [0.038]
Quintile 4	0.049*** [0.013]	0.155*** [0.024]	0.235*** [0.037]
Quintile 5	0.041*** [0.015]	0.153*** [0.028]	0.321*** [0.042]
State/Region fixed effects	Yes	Yes	Yes
Observations	5,740	5,065	2,303

Note: Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1

State/Region fixed effects are included in the regression but not reported here.

Table C-2

Correlates of per student educational expenditures, OLS model

	Log educational expenditures (per student)			
	Model 1	Model 2	Model 3	Model 4
Consumption quintile (ref. Quintile 1)				
Quintile 2	0.482***	0.394***	0.369***	0.347***
	[0.038]	[0.035]	[0.034]	[0.033]
Quintile 3	0.779***	0.617***	0.574***	0.557***
	[0.039]	[0.036]	[0.035]	[0.034]
Quintile 4	1.061***	0.841***	0.767***	0.758***
	[0.042]	[0.038]	[0.037]	[0.036]
Quintile 5	1.633***	1.271***	1.130***	1.108***
	[0.046]	[0.042]	[0.040]	[0.038]
Enrolled school level (ref. Primary)				
Middle		0.516***	0.504***	0.254***
		[0.023]	[0.022]	[0.029]
High		1.468***	1.449***	1.018***
		[0.033]	[0.032]	[0.050]
Individual characteristics				
Enrolled in private school		0.996***	0.925***	0.902***
		[0.068]	[0.066]	[0.064]
Urban			0.326***	0.241***
			[0.029]	[0.029]
School age				0.052***
				[0.005]
Female				0.023
				[0.016]
Number of siblings aged 0-14				-0.033***
				[0.010]
State/Region fixed effects	No	No	No	Yes
R-squared	0.245	0.509	0.528	0.567
Observations	12,844	12,844	12,844	12,844

Note: Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1

State/Region fixed effects are included in but not reported for model 4.

Annex D for chapter 4

Table D-1

Correlates of healthcare utilisation, probit model, marginal effects

	Any type of healthcare facilities	Public healthcare facilities	Private healthcare facilities
Urban	-0.011	-0.089***	0.068***
	[0.021]	[0.021]	[0.020]
Absent from normal activities in the last 30 days	0.019***	0.007***	0.009***
	[0.001]	[0.001]	[0.001]
Household head characteristics			
Female	0.058***	0.011*	0.033***
	[0.008]	[0.007]	[0.008]
Household composition			
Number of members 15 to 24 years old	-0.032*	-0.033**	-0.000
	[0.017]	[0.015]	[0.016]
Number of members 25 to 39 years old	-0.085***	-0.020*	-0.072***
	[0.015]	[0.012]	[0.013]
Number of members 40 to 59 years old	-0.078***	-0.036***	-0.048***
	[0.014]	[0.012]	[0.012]
Number of members over 60 years old	-0.044***	-0.027**	-0.045***
	[0.016]	[0.013]	[0.015]
Household sector (ref. Agriculture only)			
Agriculture and non-agriculture	0.054***	0.011	0.054***
	[0.016]	[0.013]	[0.015]
Non-agriculture only	0.059***	-0.025	0.088***
	[0.019]	[0.017]	[0.020]
No working members	0.001	0.004	0.011
	[0.032]	[0.027]	[0.027]
Consumption quintile (ref. Quintile 1)			
Quintile 2	0.071***	0.013	0.052***
	[0.020]	[0.015]	[0.018]
Quintile 3	0.110***	0.049***	0.053***
	[0.019]	[0.016]	[0.018]
Quintile 4	0.136***	0.026	0.105***
	[0.020]	[0.017]	[0.020]
Quintile 5	0.162***	0.007	0.152***
	[0.021]	[0.018]	[0.020]
Lives in close proximity to:			
Government hospital	0.045**	0.031	0.016
	[0.021]	[0.023]	[0.018]
Government health centre	0.026	0.084***	-0.037**
	[0.017]	[0.017]	[0.017]
Government health post	0.053***	0.099***	-0.029*
	[0.017]	[0.016]	[0.016]

	Any type of healthcare facilities	Public healthcare facilities	Private healthcare facilities
Private hospital	0.001	-0.075***	0.036*
	[0.020]	[0.023]	[0.019]
Private clinic/doctor	0.017	-0.058**	0.093***
	[0.022]	[0.023]	[0.020]
State/Region (ref. Yangon)			
Kachin	-0.034	0.064*	-0.119***
	[0.032]	[0.037]	[0.034]
Kayah	-0.043	0.007	-0.091**
	[0.033]	[0.039]	[0.036]
Kayin	0.057*	-0.057	0.098***
	[0.033]	[0.036]	[0.035]
Chin	-0.257***	-0.035	-0.224***
	[0.037]	[0.035]	[0.030]
Sagaing	0.008	0.025	-0.073**
	[0.039]	[0.038]	[0.035]
Tanintharyi	-0.075**	0.004	-0.076**
	[0.033]	[0.039]	[0.031]
Bago	-0.113***	-0.074**	-0.121***
	[0.031]	[0.033]	[0.027]
Magway	0.002	-0.116***	0.105***
	[0.030]	[0.034]	[0.032]
Mandalay	-0.011	-0.120***	0.090**
	[0.035]	[0.033]	[0.037]
Mon	0.136***	-0.033	0.126***
	[0.036]	[0.036]	[0.038]
Rakhine	-0.132***	-0.112***	-0.018
	[0.029]	[0.032]	[0.029]
Shan	-0.125***	0.006	-0.153***
	[0.037]	[0.039]	[0.030]
Ayeyarwady	-0.114***	-0.120***	-0.023
	[0.031]	[0.032]	[0.031]
Nay Pyi Taw	0.088***	-0.011	0.097***
	[0.030]	[0.037]	[0.035]
Observations	17,672	17,672	17,672

Note: Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table D-2

Correlates of health expenditures as a share of total household consumption, probit model, marginal effects

	Health expenditures as a share of total household consumption equal:			
	10%	15%	20%	25%
Urban	-0.003	0.015	0.010	0.011
	[0.014]	[0.011]	[0.009]	[0.008]
Household head characteristics				
Female	0.007	0.008	-0.002	-0.002
	[0.010]	[0.009]	[0.007]	[0.006]
Completed middle school or higher	-0.009	0.001	-0.001	-0.002
	[0.012]	[0.010]	[0.008]	[0.007]
Household composition				
Number of members aged 0-4	0.055***	0.028***	0.016***	0.008
	[0.009]	[0.007]	[0.006]	[0.005]
Number of members aged 5-14	-0.021***	-0.016***	-0.014***	-0.009***
	[0.004]	[0.003]	[0.003]	[0.003]
Number of members aged 15-59	0.006*	0.002	0.003	0.000
	[0.003]	[0.003]	[0.002]	[0.002]
Number of members aged 60+	0.053***	0.037***	0.025***	0.019***
	[0.006]	[0.005]	[0.004]	[0.003]
Household sector (ref. Agriculture only)				
Agriculture and non-agriculture	0.013	0.002	-0.007	-0.003
	[0.012]	[0.009]	[0.008]	[0.007]
Non-agriculture only	0.017	0.006	0.004	0.001
	[0.013]	[0.011]	[0.009]	[0.008]
No working members	0.162***	0.095***	0.095***	0.072***
	[0.027]	[0.022]	[0.021]	[0.018]
Consumption quintile (ref. Quintile 1)				
Quintile 2	-0.031**	-0.035***	-0.027**	-0.022**
	[0.016]	[0.013]	[0.011]	[0.010]
Quintile 3	-0.035**	-0.040***	-0.035***	-0.027***
	[0.015]	[0.013]	[0.011]	[0.010]
Quintile 4	-0.020	-0.026**	-0.024**	-0.023**
	[0.015]	[0.012]	[0.011]	[0.010]
Quintile 5	-0.030*	-0.036***	-0.032***	-0.026**
	[0.016]	[0.014]	[0.012]	[0.010]
Lives in close proximity to:				
Government hospital	0.024**	0.009	0.008	0.005
	[0.012]	[0.009]	[0.008]	[0.007]
Government health centre	0.005	0.008	0.013*	0.011*
	[0.011]	[0.008]	[0.007]	[0.006]

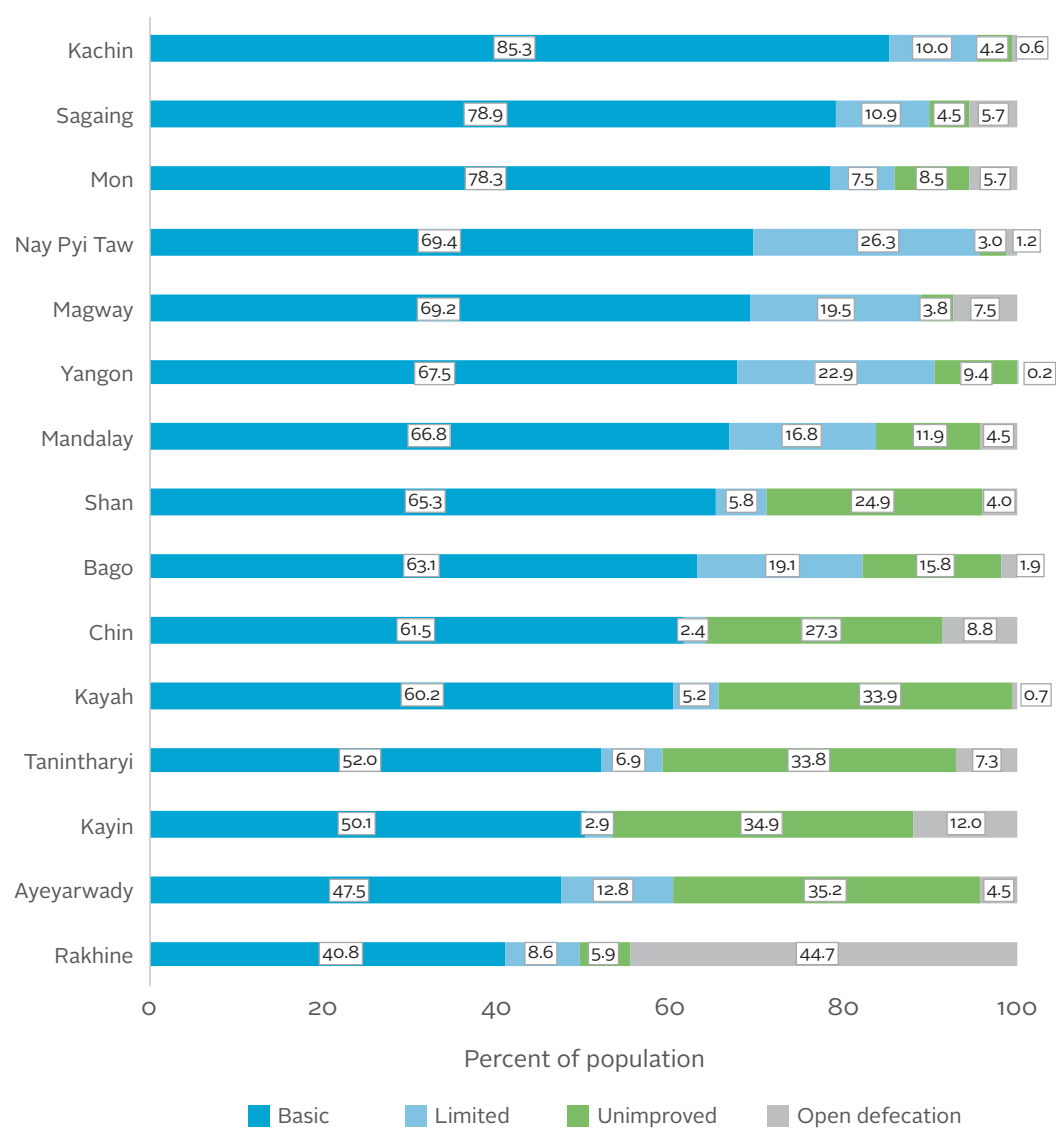
	Health expenditures as a share of total household consumption equal:			
	10%	15%	20%	25%
Government health post	0.004	0.002	-0.007	-0.004
	[0.011]	[0.008]	[0.007]	[0.006]
Private hospital	-0.025*	-0.026***	-0.023***	-0.018**
	[0.013]	[0.009]	[0.008]	[0.008]
Private clinic/doctor	-0.045***	-0.030***	-0.020**	-0.015**
	[0.013]	[0.010]	[0.008]	[0.007]
State/Region (ref. Yangon)				
Kachin	-0.112***	-0.075***	-0.046***	-0.032***
	[0.019]	[0.015]	[0.014]	[0.012]
Kayah	-0.155***	-0.095***	-0.067***	-0.046***
	[0.016]	[0.014]	[0.011]	[0.010]
Kayin	-0.024	-0.009	-0.010	-0.005
	[0.022]	[0.018]	[0.014]	[0.013]
Chin	-0.029	-0.010	-0.001	0.002
	[0.021]	[0.018]	[0.015]	[0.014]
Sagaing	-0.013	-0.012	0.001	0.002
	[0.021]	[0.017]	[0.014]	[0.012]
Tanintharyi	-0.008	-0.001	-0.008	-0.012
	[0.021]	[0.017]	[0.014]	[0.012]
Bago	0.029	0.010	0.014	0.016
	[0.021]	[0.017]	[0.014]	[0.013]
Magway	-0.044**	-0.041**	-0.031**	-0.025**
	[0.019]	[0.016]	[0.014]	[0.012]
Mandalay	-0.040**	-0.044***	-0.033***	-0.020*
	[0.020]	[0.014]	[0.012]	[0.011]
Mon	0.018	0.024	0.028*	0.029*
	[0.023]	[0.018]	[0.017]	[0.015]
Rakhine	0.043*	0.037*	0.026*	0.020
	[0.024]	[0.019]	[0.014]	[0.013]
Shan	-0.103***	-0.072***	-0.044***	-0.029***
	[0.018]	[0.014]	[0.012]	[0.011]
Ayeyarwady	-0.029	-0.020	-0.024*	-0.017
	[0.019]	[0.016]	[0.013]	[0.012]
Nay Pyi Taw	-0.016	-0.018	-0.013	-0.017
	[0.022]	[0.018]	[0.016]	[0.012]
Mean of outcome	0.198	0.123	0.083	0.061
Observations	13,730	13,730	13,730	13,730

Note: Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1

Annex E for chapter 5

Figure E-1

Percentage of the population with access to type of toilet, by state/region



Source: 2017 MLCS

Annex F for chapter 6

Table F-1

Correlates of coping mechanisms adopted by households affected by one or more shocks, probit model, marginal effects

	Borrowed	Used savings	Did nothing
Consumption quintile (ref. Quintile 1)			
Quintile 2	-0.006	0.042*	-0.012
	[0.029]	[0.022]	[0.021]
Quintile 3	-0.014	0.032	0.02
	[0.030]	[0.021]	[0.023]
Quintile 4	-0.046*	0.065***	0.028
	[0.027]	[0.021]	[0.023]
Quintile 5	-0.087***	0.084***	0.049**
	[0.029]	[0.022]	[0.023]
Shock type (ref. Climate)			
Agricultural	0.148***	-0.047***	-0.086***
	[0.022]	[0.017]	[0.020]
High food price	-0.155***	-0.177***	0.069***
	[0.020]	[0.017]	[0.023]
Income	0.238***	-0.029	-0.235***
	[0.030]	[0.024]	[0.019]
Health	0.309***	-0.100***	-0.252***
	[0.025]	[0.019]	[0.017]
Other	-0.145***	-0.048	0.223***
	[0.030]	[0.036]	[0.043]
Quintile 1 mean of outcome	0.456	0.156	0.201
Observations	7,634	7,634	7,634

Notes: Sample is restricted to households that were negatively affected by a shock in the 12 months preceding the survey. The unit of observation is the shock.

Source: 2017 MLCS

Annex G for chapter 7

Table G-1

Correlates of labour force participation, probit model, marginal effects

	Union	Female	Male
Individual characteristics			
Female	-0.226*** [0.005]		
Urban	-0.030*** [0.007]	-0.041*** [0.010]	-0.017** [0.008]
Married	-0.029*** [0.006]	-0.112*** [0.008]	0.078*** [0.008]
Has an identification card	-0.006 [0.010]	-0.008 [0.014]	-0.022** [0.011]
Disabled	-0.252*** [0.016]	-0.227*** [0.026]	-0.234*** [0.017]
Age group (ref. Age 70 plus)			
Age 15 to 17	0.131*** [0.019]	0.242*** [0.029]	0.089*** [0.021]
Age 18 to 22	0.389*** [0.017]	0.504*** [0.026]	0.302*** [0.017]
Age 23 to 59	0.493*** [0.014]	0.600*** [0.021]	0.381*** [0.014]
Age 60 to 69	0.222*** [0.016]	0.261*** [0.024]	0.165*** [0.015]
Education (ref. No schooling)			
Monastic education	0.024 [0.015]	-0.001 [0.023]	0.046** [0.018]
Primary school	0.072*** [0.011]	0.060*** [0.014]	0.096*** [0.016]
Middle school	0.098*** [0.013]	0.091*** [0.016]	0.107*** [0.017]
High school	-0.019 [0.013]	-0.025 [0.017]	0.001 [0.017]
University or more	0.166*** [0.015]	0.205*** [0.019]	0.102*** [0.020]
Household composition			
Child aged 0-5 in household	-0.045*** [0.006]	-0.090*** [0.008]	0.007 [0.008]
Child aged 6-14 in household	-0.006 [0.006]	-0.006 [0.008]	-0.007 [0.007]
Number of adults aged 15-59 in household	-0.013*** [0.002]	-0.020*** [0.003]	-0.007** [0.003]
Retired elderly in household	-0.095*** [0.007]	-0.068*** [0.009]	-0.110*** [0.007]

	Union	Female	Male
Survey quarter (ref. Quarter 1)			
Quarter 2	-0.012	-0.008	-0.018*
	[0.011]	[0.015]	[0.010]
Quarter 3	-0.014	-0.006	-0.024**
	[0.011]	[0.014]	[0.011]
Quarter 4	-0.016*	-0.002	-0.031***
	[0.010]	[0.013]	[0.010]
State/Region (ref. Yangon)			
Kachin	-0.100***	-0.080***	-0.117***
	[0.017]	[0.019]	[0.023]
Kayah	0.042***	0.079***	0.011
	[0.016]	[0.023]	[0.015]
Kayin	-0.102***	-0.078***	-0.129***
	[0.016]	[0.021]	[0.018]
Chin	-0.040*	0.018	-0.108***
	[0.024]	[0.028]	[0.024]
Sagaing	0.059***	0.120***	-0.006
	[0.014]	[0.020]	[0.014]
Tanintharyi	0.046***	0.053**	0.039***
	[0.014]	[0.021]	[0.013]
Bago	-0.007	0.016	-0.036*
	[0.018]	[0.022]	[0.021]
Magway	0.048***	0.094***	-0.007
	[0.015]	[0.020]	[0.015]
Mandalay	0.068***	0.103***	0.035***
	[0.012]	[0.018]	[0.012]
Mon	-0.067***	-0.075***	-0.062***
	[0.015]	[0.022]	[0.017]
Rakhine	-0.033*	-0.046*	-0.019
	[0.017]	[0.025]	[0.017]
Shan	0.098***	0.160***	0.033**
	[0.016]	[0.022]	[0.017]
Ayeyarwady	-0.009	-0.022	0.011
	[0.015]	[0.022]	[0.015]
Nay Pyi Taw	0.030**	0.038**	0.021*
	[0.013]	[0.019]	[0.013]
Consumption quintile (ref. Quintile 1)			
Quintile 2	-0.010	-0.006	-0.011
	[0.011]	[0.014]	[0.013]
Quintile 3	-0.005	-0.015	0.012
	[0.011]	[0.015]	[0.013]
Quintile 4	-0.027**	-0.046***	-0.002
	[0.011]	[0.015]	[0.013]
Quintile 5	-0.054***	-0.071***	-0.025*
	[0.012]	[0.015]	[0.014]
Mean of outcome	0.648	0.543	0.771
Observations	43,244	23,354	19,890

Note: Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table G-2

Heckman selection model of log hourly nominal wages

	Union	Female	Male
Individual characteristics			
Female	-0.352***		
	[0.019]		
Urban	0.106***	0.061**	0.143***
	[0.023]	[0.027]	[0.027]
Has an identification card	0.070***	0.039	0.083**
	[0.025]	[0.031]	[0.033]
Disabled	-0.171***	-0.319***	-0.063
	[0.053]	[0.099]	[0.054]
Age	0.035***	0.024***	0.040***
	[0.004]	[0.005]	[0.005]
Age squared	-0.000***	-0.000***	-0.001***
	[0.000]	[0.000]	[0.000]
Educational attainment (ref. No schooling)			
Monastic education	0.059	-0.101	0.125**
	[0.045]	[0.085]	[0.056]
Primary school	0.095***	0.051	0.145***
	[0.030]	[0.037]	[0.046]
Middle school	0.158***	0.087*	0.212***
	[0.034]	[0.046]	[0.050]
High school	0.219***	0.178***	0.263***
	[0.035]	[0.047]	[0.050]
University or more	0.788***	0.938***	0.559***
	[0.040]	[0.049]	[0.060]
Household sectoral participation			
Household engaged in farming	-0.099***	-0.090**	-0.080**
	[0.030]	[0.044]	[0.037]
Household operates a non-farm business	-0.067***	-0.087**	-0.046*
	[0.022]	[0.034]	[0.027]
State/Region (ref. Yangon)			
Kachin	0.014	-0.088*	0.068
	[0.037]	[0.051]	[0.047]
Kayah	0.099***	0.030	0.145***
	[0.034]	[0.046]	[0.043]
Kayin	-0.138**	-0.119	-0.147**
	[0.055]	[0.073]	[0.065]
Chin	0.045	0.031	0.070
	[0.040]	[0.053]	[0.051]

	Union	Female	Male
Sagaing	-0.188***	-0.256***	-0.135***
	[0.032]	[0.042]	[0.040]
Tanintharyi	0.118***	-0.038	0.200***
	[0.032]	[0.049]	[0.039]
Bago	-0.227***	-0.291***	-0.183***
	[0.033]	[0.040]	[0.042]
Magway	-0.313***	-0.320***	-0.311***
	[0.042]	[0.054]	[0.049]
Mandalay	-0.188***	-0.244***	-0.154***
	[0.046]	[0.048]	[0.059]
Mon	-0.116***	-0.238***	-0.051
	[0.034]	[0.049]	[0.043]
Rakhine	-0.190***	-0.200***	-0.175***
	[0.040]	[0.050]	[0.054]
Shan	-0.046	-0.081	-0.038
	[0.050]	[0.057]	[0.060]
Ayeyarwady	-0.299***	-0.366***	-0.253***
	[0.031]	[0.043]	[0.039]
Nay Pyi Taw	-0.200***	-0.214***	-0.197***
	[0.038]	[0.050]	[0.043]
Observations	42,746	23,142	19,604

Note: Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table G-3

Heckman selection model, selection equation

	Earns wages (marginal effects)		
	Union	Female	Male
Individual characteristics			
Female	-0.124***		
	[0.005]		
Urban	-0.022***	-0.032***	-0.008
	[0.008]	[0.009]	[0.011]
Married	-0.035***	-0.070***	0.020**
	[0.006]	[0.007]	[0.010]
Has an identification card	0.007	-0.005	0.013
	[0.009]	[0.011]	[0.013]
Disabled	-0.114***	-0.074***	-0.157***
	[0.018]	[0.023]	[0.025]
Age	0.016***	0.013***	0.018***
	[0.001]	[0.001]	[0.002]
Age squared	-0.000***	-0.000***	-0.000***
	[0.000]	[0.000]	[0.000]
Educational attainment (ref. No schooling)			
Monastic education	0.031**	0.011	0.044**
	[0.014]	[0.021]	[0.022]
Primary school	0.034***	0.013	0.059***
	[0.011]	[0.011]	[0.018]
Middle school	0.018	-0.008	0.042**
	[0.012]	[0.014]	[0.019]
High school	-0.028**	-0.050***	-0.010
	[0.013]	[0.014]	[0.020]
University or more	0.170***	0.194***	0.088***
	[0.014]	[0.015]	[0.023]
Household composition			
Child aged 0-5 in household	-0.037***	-0.056***	-0.015*
	[0.006]	[0.008]	[0.008]
Child aged 6-14 in household	-0.021***	-0.021***	-0.019**
	[0.006]	[0.006]	[0.008]
Number of adults aged 15-59 in household	-0.004	-0.007***	0.000
	[0.002]	[0.003]	[0.003]
Retired elderly in household	-0.044***	-0.035***	-0.049***
	[0.007]	[0.008]	[0.011]
Household income sources			
Household engaged in farming	-0.299***	-0.220***	-0.385***
	[0.007]	[0.008]	[0.009]
Household operates a non-farm business	-0.176***	-0.152***	-0.209***
	[0.007]	[0.008]	[0.010]

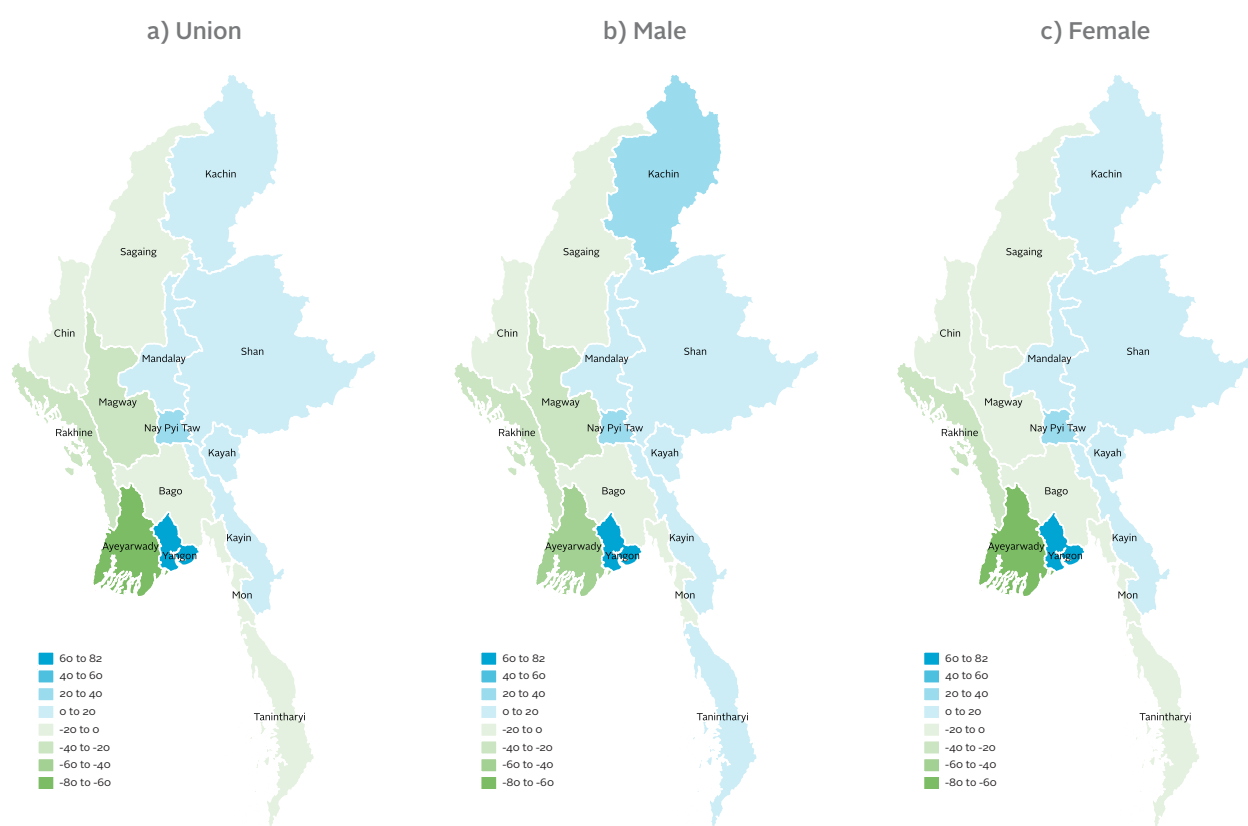
	Earns wages (marginal effects)		
	Union	Female	Male
State/Region (ref. Yangon)			
Kachin	-0.073*** [0.013]	-0.084*** [0.016]	-0.059*** [0.019]
Kayah	-0.012 [0.014]	-0.024 [0.015]	0.004 [0.020]
Kayin	-0.096*** [0.016]	-0.102*** [0.018]	-0.087*** [0.024]
Chin	-0.102*** [0.015]	-0.112*** [0.018]	-0.093*** [0.021]
Sagaing	-0.030* [0.015]	-0.033** [0.015]	-0.023 [0.023]
Tanintharyi	0.019 [0.016]	-0.002 [0.018]	0.042* [0.023]
Bago	0.020 [0.013]	0.027* [0.015]	0.006 [0.018]
Magway	-0.011 [0.015]	-0.003 [0.015]	-0.025 [0.021]
Mandalay	0.010 [0.014]	0.018 [0.014]	-0.000 [0.020]
Mon	-0.040*** [0.014]	-0.082*** [0.016]	0.004 [0.021]
Rakhine	-0.091*** [0.016]	-0.094*** [0.020]	-0.088*** [0.021]
Shan	-0.062*** [0.015]	-0.057*** [0.016]	-0.064*** [0.020]
Ayeyarwady	-0.043*** [0.013]	-0.039*** [0.015]	-0.049*** [0.018]
Nay Pyi Taw	-0.017 [0.013]	-0.037*** [0.014]	0.009 [0.019]
Consumption quintile (ref. Quintile 1)			
Quintile 2	-0.048*** [0.012]	-0.046*** [0.013]	-0.049*** [0.016]
Quintile 3	-0.063*** [0.011]	-0.056*** [0.013]	-0.068*** [0.015]
Quintile 4	-0.099*** [0.011]	-0.086*** [0.013]	-0.111*** [0.014]
Quintile 5	-0.143*** [0.012]	-0.131*** [0.013]	-0.148*** [0.016]
Survey quarter (ref. Quarter 1)			
Quarter 2	-0.001 [0.009]	-0.004 [0.011]	0.000 [0.013]
Quarter 3	0.004 [0.009]	0.002 [0.010]	0.006 [0.013]
Quarter 4	-0.019** [0.009]	-0.016 [0.011]	-0.022* [0.013]
Observations	42,746	23,142	19,604

Note: Standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1

Annex H for chapter 8

Map H-1

Net recent migration rate (per 1,000 people)



Notes: Outreach activities for the 2017 MLCS took place over the 12 months of data collection, but it was not possible to conduct interviews in two townships of Northern Rakhine State and the Wa Self-Administered Division.

Source: 2017 MLCS

Table H-1

Correlates of being temporary economic migrant, probit model, marginal effects

	Temporary economic migrant		
Works in non-agriculture	0.055***	0.061***	0.070***
	[0.006]	[0.007]	[0.007]
Has more than one job	0.125***	0.112***	0.113***
	[0.006]	[0.006]	[0.006]
Urban		-0.026***	-0.019**
		[0.007]	[0.008]
Female		-0.073***	-0.074***
		[0.005]	[0.004]
Married		-0.025***	-0.024***
		[0.005]	[0.005]
Age group (ref. Age 15-20)			
Age 21-39		-0.016**	-0.013
		[0.008]	[0.008]

	Temporary economic migrant		
Age 40-59		-0.057***	-0.053***
		[0.008]	[0.008]
Age 60+		-0.086***	-0.082***
		[0.010]	[0.010]
Other household member works in agriculture			0.023***
			[0.006]
Consumption quintile (ref. Quintile 1)			
Quintile 2			-0.015*
			[0.008]
Quintile 3			-0.020**
			[0.008]
Quintile 4			-0.019**
			[0.008]
Quintile 5			-0.007
			[0.009]
State/Region (ref. Yangon)			
Kachin	0.092***	0.079***	0.075***
	[0.018]	[0.018]	[0.018]
Kayah	0.023*	0.010	0.007
	[0.012]	[0.012]	[0.012]
Kayin	-0.025**	-0.028***	-0.030***
	[0.010]	[0.011]	[0.011]
Chin	0.000	-0.005	-0.012
	[0.012]	[0.012]	[0.012]
Sagaing	0.009	0.004	0.000
	[0.011]	[0.011]	[0.011]
Tanintharyi	0.058***	0.050***	0.046***
	[0.014]	[0.014]	[0.014]
Bago	0.107***	0.101***	0.099***
	[0.016]	[0.016]	[0.016]
Magway	0.026**	0.025*	0.020
	[0.012]	[0.013]	[0.013]
Mandalay	-0.016	-0.019*	-0.021*
	[0.010]	[0.011]	[0.011]
Mon	0.002	0.003	0.002
	[0.012]	[0.013]	[0.013]
Rakhine	0.063***	0.056***	0.053***
	[0.017]	[0.017]	[0.017]
Shan	-0.007	-0.013	-0.018*
	[0.010]	[0.011]	[0.011]
Ayeyarwady	0.038***	0.030***	0.027**
	[0.011]	[0.011]	[0.011]
Nay Pyi Taw	0.013	0.006	0.003
	[0.012]	[0.012]	[0.012]
Observations	28,405	28,405	28,405

Notes: The sample is restricted to employed members of the labour force. Standard errors in brackets. * p < 0.05, ** p < 0.01, *** p < 0.001

Source: 2017 MLCS

Annex I for chapter 9

Table I-1

Percentage of households engaged in each income strategy, by state/region

	Kachin	Kayah	Kayin	Chin	Sagaing	Tanintharyi	Bago	Magway	Mandalay	Mon	Rakhine	Yangon	Shan	Ayeyar-wady	Nay Pyi Taw
Farming and allied	55.5	68.6	69.5	83.2	72.2	63.6	69.4	61.0	48.6	46.1	70.4	18.5	76.7	72.0	42.2
Crop production	38.9	57.2	43.8	65.9	58.5	43.3	41.6	47.2	36.4	31.6	43.1	8.0	69.0	43.0	25.9
Livestock rearing	45.6	51.8	56.4	71.9	60.8	37.9	61.2	52.3	38.7	21.0	51.7	14.6	46.3	59.6	33.2
Fishing	3.5	3.7	25.8	14.7	2.2	13.1	15.8	0.7	2.1	8.4	18.7	4.7	8.5	18.9	2.9
Non-farm business	35.8	26.0	40.1	13.6	40.9	43.2	37.6	27.5	39.7	41.2	36.1	50.7	25.1	33.0	29.7
Agricultural labour	19.6	18.3	17.2	8.6	31.7	35.3	31.1	33.7	22.2	21.6	30.3	9.1	27.0	39.0	28.2
Non-agricultural labour	43.6	49.8	29.0	37.7	37.2	39.9	35.2	30.0	46.5	39.0	30.3	66.6	26.9	29.1	47.3
Remittances	14.5	22.8	40.2	28.8	19.0	25.9	19.2	18.8	16.8	40.8	22.9	16.2	14.4	18.7	19.9
Other	15.9	29.8	23.4	33.7	49.3	26.8	51.7	40.4	30.4	31.4	40.0	32.8	8.3	31.0	56.8
Rent	4.4	2.1	4.6	0.8	4.4	4.1	2.2	5.4	3.3	3.4	7.5	0.4	0.8	2.1	1.1
Public/social transfers	5.1	21.9	4.2	28.5	12.7	11.7	32.7	10.3	9.8	7.9	29.7	13.3	3.8	14.3	50.4
Miscellaneous	7.3	8.6	16.1	7.6	42.3	14.5	27.6	31.4	20.4	23.0	9.1	23.0	3.9	20.2	11.7
Agricultural activities	60.8	72.6	72.0	84.5	78.9	74.3	76.5	74.9	56.2	57.2	78.5	22.5	81.1	80.8	56.6
Non-agricultural activities	65.3	64.7	57.5	45.6	64.0	64.7	60.7	49.7	68.6	64.2	55.4	88.1	44.8	52.3	65.4

Table I-2

Income differentials by income sources

	Per capita monthly income	
	Model 1	Model 2
Farming and allied	-35,087*** [2,873]	-22,656*** [2,495]
Non-farm business	36,056*** [2,467]	32,799*** [2,480]
Agricultural labour	-18,813*** [1,576]	-14,578*** [1,529]
Non-agricultural labour	5,051** [2,298]	1,218 [2,329]
Remittances	13,434*** [2,935]	13,495*** [3,049]
Other	5,957*** [2,046]	5,302** [2,187]
Urban		25,822*** [3,621]
Mean of outcome	68,691	68,691
State/Region fixed effects	No	Yes
R-squared	0.09	0.104
Observations	13,730	13,730

Notes: Income is reported in 2017 quarter 1 kyat. Standard errors in brackets. State/Region fixed effects are included in model 2 but not reported.

* p < 0.05, ** p < 0.01, *** p < 0.001

Source: 2017 MLCS

Table I-3

Correlates of rice yields per acre of land, OLS model

	Rice yield (kg per acre)		
Poor	-211.1***	-110.1**	-117.7**
	[55.0]	[52.3]	[49.0]
Uses tractor or power tiller		242.7***	300.7***
		[60.4]	[60.2]
Has irrigated plot		95.4*	99.0*
		[56.4]	[55.8]
Uses inorganic fertilizer		166.2***	167.4***
		[61.5]	[60.0]
Uses organic fertilizer		101.5*	42.8
		[53.9]	[49.5]
Uses pesticides		39.5	61.9
		[57.7]	[57.0]
Market is less than 3 miles away		208.3***	216.3***
		[65.0]	[67.7]
Cultivated land area (acres)		-18.8***	-20.5***
		[3.0]	[3.0]
Cultivated land area squared		0.0***	0.1***
		[0.0]	[0.0]
Household head's education (ref. No schooling)			
Monastic		148.4*	20.2
		[84.6]	[87.0]
Primary		248.8***	51.8
		[64.4]	[72.8]
Middle		375.5***	154.9
		[80.7]	[94.7]
High or more		319.5***	142.1
		[87.1]	[92.0]
Mean of outcome	1,477.7	1,477.7	1,477.7
State/Region fixed effects	No	No	Yes
R-squared	0.009	0.078	0.140
Observations	2,977	2,977	2,977

Notes: Standard errors in brackets. State/Region fixed effects are included in column 3 but not reported. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2017 MLCS

Table I-4

Income diversification: household participation in different activity combinations and income shares derived from each activity (in percent)

Rank	Percent of households	Income shares of income activity combinations (%)				
		Farming	Agricultural labour	Non-agricultural labour	Non-farm business	Remittances and Other
1	19.5	73.9				26.1
2	11.7			84.3		15.7
3	10.9	24.7	59.7			15.6
4	10.2				90.0	10.0
5	9.3			41.5	49.4	9.1
6	8.4	22.0			66.5	11.5
7	7.4	24.8		63.8		11.4
8	4.2	8.8	33.7	48.6		8.8
9	3.7	14.3		33.2	44.7	7.8
10	3.6					100.0
11	3.4		74.6			25.4
12	2.8	16.7	28.2		44.8	10.4
13	2.1		36.3	53.8		10.0
14	1.2		40.0		51.5	8.5
15	1.0	7.7	24.4	32.0	27.5	8.5
16	0.7		19.2	38.4	35.5	6.9

Source: 2017 MLCS

INQUIRIES

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