Chapter 17

WOMEN AND YOUTH IN AGRICULTURE

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Gendered social and cultural norms often strongly emphasize women's roles as caregivers. Such norms may, in turn, contribute to gender patterns in economic activity, including agricultural activity. Meanwhile, youth are at a critical stage in their lives as they transition from being "dependent" household members to a more independent stage of life, with increasing caregiving and income-generating responsibilities (Arslan et al. 2021). There may, therefore, be generational differences between youth and non-youth in terms of their contributions to economic activities—including the extent to which they are involved in one sector or another.

Knowing and understanding the gendered and generational contributions and roles of women, men, and youth in rural livelihoods and the inequalities therein are critical to designing policies and interventions (Abay et al. 2021; Christiaensen 2017; Cole et al. 2021). Without such evidence, policies and projects risk being designed on the basis of false assumptions, at best lowering efficiency and, at worst, leading to harmful outcomes. So far, only a handful of studies have described gender roles in Myanmar agriculture, and these rely on case study evidence and qualitative data. Little quantitative evidence is available about women's and youth's roles in agriculture in Myanmar and, more broadly, in the rural economy.

This chapter provides quantitative descriptive information on women's and youth's involvement in agriculture in rural Myanmar. We follow recent literature on youth's livelihoods and classify youth as those ages 15 to 24 years (Arslan et al. 2021). The chapter starts with a brief literature review, followed by a descriptive analysis based on a nationally representative survey. First, we focus on employment patterns in rural areas, in agriculture in particular. Second, we look at women's and youth's access to farmland, a key prerequisite for most household agricultural activities in a country where rental markets are thin. Third, we analyze access to credit, which is strongly associated with the ability to invest in farm and nonfarm enterprises. We follow with

reflections on the impact of Myanmar's current crises on women's and youth's roles in agriculture and end with concluding remarks.

Gender and youth in rural Myanmar

Whether and to what extent gender inequalities and discrimination exist in Myanmar is an area of considerable debate—and confusion (Winterberger 2017). Historically, women in Myanmar are portrayed as having high status (Ikeya 2005). They are also considered to be freer and more independent than women in neighboring countries, such as China or India (Thawnghmung 2019). Yet attitudes about gender roles in Myanmar tend to be conservative (Htun and Jensenius 2020), and manifestations of gender inequality are apparent in several domains—such as women's political representation, positions in religious institutions, and attitudes about domestic violence (GEN 2015; Than 2014; Thawnghmung 2019). The extent of gender inequalities and discrimination thus depends heavily on the specific domain or topic, the unit of analysis, and the reference point (Winterberger 2017).

Contrasting pictures also emerge about Myanmar youth. On the one hand, some portray Myanmar's youth as being limited in access to economic opportunities and largely absent in political representation. Respect toward elders and "generational" systems of social norms may constrain young people's decision-making at home and about their livelihoods (Park 2021). However, others have also described youth as a powerful segment of the population. Myanmar's youth are recognized as drivers of past political change and a promising group advocating for future political change (Ra et al. 2021; SFCG 2018). Moreover, youth, particularly those migrating for work, can be drivers of economic prosperity for their households and communities (Belton and Filipski 2019; Filipski et al. 2021; Ra and Ju 2021).

Women outnumber men in Myanmar, with relatively similar gender ratios in rural areas (94 men to 100 women) and in urban centers (92 men to 100 women) (MoLIP 2017b). Rural-to-urban migration in Myanmar does not exhibit stark gender differences: exactly half of all rural-to-urban migrants in 2014 were women.[1] International migration is higher among men than women, but women still made up 38 percent of international migrants in 2014. Migration is more common among younger people. Nearly half

1 The census survey report defines recent migrants as those who have migrated in the past five years (MoLIP 2017a).

(47.5 percent) of all recent international migrants left Myanmar between the ages of 15 and 24 years old (MoLIP 2016).

Gender roles at home

Traditionally, household headship is assigned to men. In most communities, however, when a male household head passes away and is survived by a female spouse, she is considered the new head of household even if there are adult sons (Lambrecht et al. 2024). Men are expected to be the main income earners for their households, whereas women are expected to prioritize domestic and care-related activities (Faxon 2017; Lambrecht et al. 2024). Nevertheless, household members in Myanmar commonly pool their income (Akter et al. 2017; Lambrecht et al. 2024). Women play a prominent role in household finances and generally lead the day-to-day management of the household budget (Carnegie et al. 2020).

In the central part of the Dry Zone, Carnegie and colleagues (2020) find that women spend, on average, 4 to 5 hours per day on household and care work, while the average time men spend on such work is 0.5 to 1.0 hours per day. Carrying the responsibility for and taking on the largest share of household work leads to restrictions in women's time and mobility; married women with children often engage in small home-based economic activities that can be combined with their household and care responsibilities, such as selling food or offering services such as weaving, tailoring, or hairdressing (Thawnghmung 2019).

Education is often considered a powerful and empowering asset (Tembon and Fort 2008). In rural areas, among those at least 25 years old, more men than women have completed any education beyond the primary level (33.5 percent of men and 22.3 percent of women). However, more women than men have attained higher education (MoLIP 2017b). The gender gap in literacy rates is smaller: 90.7 percent of rural adult men are literate, compared with only 83.8 percent of rural adult women. Furthermore, we find much smaller gender gaps in younger age groups. Only a small gender gap is observed in youth literacy (94.5 percent for men and 93.5 percent for women). In rural areas, school attendance rates of rural children and young adults ages 5 to 24 years show a gender gap of 1.5 percent (MoLIP 2017a).

Property is considered jointly owned by both spouses or by all adult household members. Key assets such as agricultural land are thus perceived to be jointly owned (Lambrecht et al. 2024). Officially, land documents can have two names, but few people are aware of this (Boutry et al. 2017). Typically, only the name of the household head is written on the document, resulting in

a gender gap in documented land rights (Lambrecht et al. 2024). Regardless of formal asset ownership status, spouses decide jointly on the purchase and sale of land, housing, or major assets (Akter et al. 2017).

Rural finance is an important tool for poverty reduction (Aung et al. 2019). Myanmar Agricultural Development Bank (MADB) is the main formal provider of credit in rural areas to farmers, mainly in support of paddy production (Okamoto, Lwin, and Fujita 2021). Having formal farmland ownership is a prerequisite to accessing MADB loans (Boutry et al. 2017). As land titles are often in the name of men, there is a risk that this requirement will reduce women's ability to borrow from MADB (Lambrecht et al. 2024).

A range of other formal lending options are available in rural Myanmar, including village revolving funds and credit cooperatives. Informal credit sources remain important and include loans from relatives, friends, gold shops, employers, traders, moneylenders, and village common funds (Okamoto, Lwin, and Fujita 2021). Saving, taking loans for basic consumption, and participating in microcredit groups are all often considered women's domains, but decisions to engage in savings or loans are generally made jointly (Carnegie et al. 2020).

Gender roles and youth agriculture

Both men and women work in the agriculture sector in Myanmar, yet men are considered "farmers" and women more often "helpers" or "laborers" (Carnegie et al. 2020; Faxon 2017). Generally, men are involved in specific tasks such as seedbed and land preparation, fertilizer spraying, and pesticide application. They are also more likely to perform tasks that require the use of machinery. Men and women share tasks such as weeding, manual harvesting, and postharvest activities. Women perform more manual tasks, such as spreading manure or hand weeding. Women often form small groups for transplanting rice, while men are often involved in uprooting and distributing seedlings. Women are also often charged with preparing lunch or snacks for hired laborers (Akter et al. 2017; Carnegie et al. 2020). These gender patterns are found across the diverse agroecological and ethnic settings in Myanmar (Faxon 2017).

A lower valuation of women's work is evident from a gender wage gap in agriculture. Women earn less than men, sometimes even for the same task (Faxon 2017; Thawnghmung 2019). Overall, men are more likely to be the main decision-makers in agriculture (Carnegie et al. 2020; Ragasa et al. 2020). Therefore, it is primarily men who engage with extension agents or participate in farmer groups and agricultural training (Akter et al. 2017; Carnegie et

al. 2020; Ragasa et al. 2020). However, women's opinions are taken into consideration, and agricultural decisions are still often made jointly (Akter et al. 2017).

Little is documented about the roles of youth in agriculture in Myanmar. The general narrative is that youth no longer like working in the fields. Parents, too, may prefer their children to work in nonfarm activities rather than in the field. Young people often seek nonagricultural employment opportunities, and a significant share of youth migrate out of rural areas to urban centers or abroad for work (Aung 2019; Belton and Filipski 2019; Boutry et al. 2017; MoLIP 2016; World Bank, EMRF, and ARA 2018).

Myanmar households experience significant life-cycle effects in relation to access to land and, therefore, occupational choice. Younger households are often "temporarily" landless—that is, until they inherit or can purchase land and other necessary agricultural assets. Meanwhile, temporary arrangements for accessing farmland, such as renting or sharecropping, may provide an alternative to wage employment during such a transition period for young adults (Boutry et al. 2017).

Data and methodology

We rely primarily on the 2015 Myanmar Poverty and Living Conditions Survey (MPLCS) for our quantitative analysis,[2] which focuses on rural household members. Individual-level information is limited to adults ages 15 to 59 years. Following other recent work on youth and employment, for example, Arslan et al. (2021), we define youth as individuals between 15 and 24 years of age.

We focus on employment, agricultural labor, land rights, and loans. For each household member, the MPLCS employment module asks about work in the past seven days as well as any other employment in the past 12 months. We consider four main employment categories: household agricultural activities, nonagricultural enterprises, and agricultural and nonagricultural wage employment.[3] We categorize anyone who worked on household agricultural

2 In our analysis, the Coastal agroecological zone (AEZ) contains Tanintharyi, Mon, and Rakhine; the Dry AEZ—Sagaing, Magway, Mandalay, and Naypyidaw; the Delta AEZ—Bago, Yangon, and Ayeyarwady; and the Hills and Mountains AEZ—Kachin, Kayin, Kayah, Chin, and Shan.

3 The International Labour Organization (ILO) differentiates between work for pay or profit ("employment") and own-use production work, apprenticeships, or volunteer work (not considered employment). We adhere to the definition of employment as work for pay or profit. However, we capture a 12-month period rather than a seven-day recall, and, because of the survey structure, we are unable to adjust for own consumption of agricultural goods.

activities in the previous seven days or 12 months as employed. If the agricultural activities in a household are exclusively for home consumption purposes, this definition results in a small overestimation of agricultural self-employment in our analysis.[4] The variable "not in employment, education, or training" (NEET) focuses on those who have not been employed and were not in education or training in the past 12 months.

The quantitative analysis is mainly descriptive. The descriptive statistics are calculated using sampling weights to correct for biases related to the sampling strategy. We also employ exploratory regression analyses. These analyses are not intended to draw causal inferences but to obtain a more robust understanding of trends depending on the interplay of key life-cycle characteristics—gender, age, and parenthood—while controlling for education levels and geographic zones. We do not include land ownership as a variable in our employment regressions (Heckert et al. 2021), as the direct linkages with employment will disturb any clear patterns associated with the other life-cycle characteristics of interest. We use regular ordinary least squares regressions on employment. We tested significant differences of coefficients in men's and women's regressions following Clogg, Petkova, and Haritou (1995).

Results

Employment

RURAL EMPLOYMENT

Table 17.1 demonstrates the important contribution of agriculture to rural livelihoods in Myanmar. Forty-three percent of adults had worked in household agricultural activities in the previous year, whereas 22 percent had worked as agricultural wage workers. Moreover, a substantial proportion of nonagricultural enterprises and nonagricultural wage work is associated with the agrifood sector. An estimated 34 to 40 percent of enterprises fall within the agrifood sector, such as agricultural machinery dealers and operators and food processing, transport, and trading activities. Twenty-one percent of adults are not employed, among whom most are in the NEET category (18 percent of all adults) (Table 17.1).

4 Agriculture includes farming, raising livestock, fishing, and forestry activities. Household agricultural activities include production both for household use and for sale. Among those who had performed any household agricultural activities in the previous seven days, 10 percent indicated that this was only for household consumption. There was no significant difference in this indicator between men and women.

TABLE 17.1 Rural adults (ages 15–59 years) participating in different types of employment, among all adults and among employed adults only

	All adults (%)				Employed adults (%)			
Employment past year	All	Men	Women	Test	All	Men	Women	Test
Household agriculture	43.3	53.7	34.5	**	55.1	58.4	51.2	**
Nonagricultural enterprise	18.7	18.6	18.9		23.8	20.2	28.1	**
Wage	35.2	44.2	27.6	**	44.7	48.0	40.9	**
Agricultural wage	22.1	25.7	19.1	**	28.2	27.9	28.5	
Nonagricultural wage	15.2	22.2	9.3	**	19.4	24.1	13.9	**
No employment	21.4	8.0	32.7	**	NA	NA	NA	
NEET	17.5	4.8	28.2	**	NA	NA	NA	
Education or training	3.9	3.2	4.5	*	NA	NA	NA	
Observations	6,162	2,821	3,341		4,698	2,558	2,140	

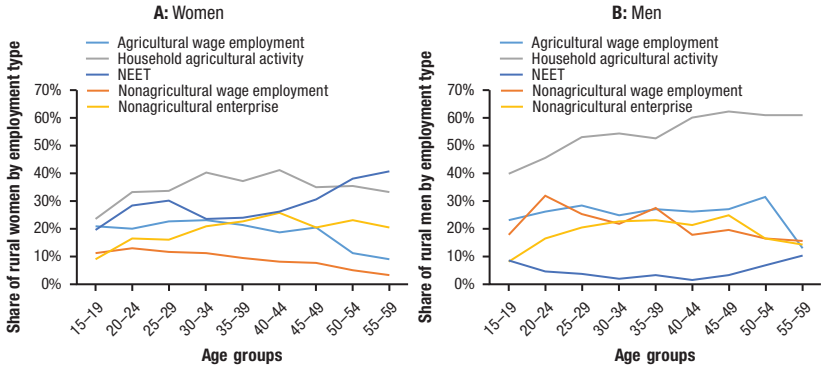
Source: Authors' calculations using MPLCS 2015.

Note: NEET = not in employment, education, or training. NA = not applicable. Individuals may engage in more than one type of employment. Individuals engaging in multiple activities are counted in each applicable category. Asterisks indicate statistically significant differences between men and women at * $p < .05$; ** $p < .01$.

Many women work in household agricultural activities or in agricultural wage employment—but to a lesser extent than men (Table 17.1 and Figure 17.1). About half of men (54 percent) and a third of women (35 percent) are engaged in household agricultural activities, and 26 percent of men and 19 percent of women in agricultural wage employment. The observed gender gap in agricultural employment is much smaller when considering the subgroup of employed adults: 58 percent of employed men and 51 percent of employed women are engaged in household agricultural activities. There is no longer a significant difference between the share of men and women employed in agricultural wage labor (each 28 percent).

Women are as likely as men to work in nonagricultural enterprises (Table 17.1). When considering only those who are employed, we find that employed women more often work in a nonagricultural enterprise than do employed men (28 vs. 20 percent) but are less likely to be in nonagricultural wage employment (14 vs. 24 percent). Women's participation in self-employment in nonagricultural enterprises likely relates to their greater work flexibility and the opportunities to combine this work with household and care activities. More women are classified as NEET (28 percent) when compared with men (5 percent), which is strongly related to women's responsibilities for household chores and care activities. Indeed, among those classified as NEET, 76 percent of women reported family responsibilities or household chores as a

FIGURE 17.1 Employment in the past 12 months, male and female rural adults, by age



Source: Authors' analysis using MPLCS 2015.
Note: NEET = not in employment, education, or training. Individuals may engage in multiple activities.

reason for not working in the previous seven days, but only 9 percent of men did so (not shown here).

Similar gender patterns emerge among youth, with young men more likely to work on household agricultural activities compared with young women, and young women, in particular, less likely to be employed than young men (Table 17.2). Youth more often work in wage labor than non-youth (38 vs. 35 percent) but are less likely to work in household agricultural and non-agricultural enterprise activities (Figure 17.1). Young people may lack the resources required for self-employment, including land for agricultural activities. As expected, many young people are engaged in education or training; therefore, a smaller share of youth than non-youth are employed. Yet, when we exclude people in education or training, a lower share of youth than non-youth are not employed (NEET) (16 vs. 18 percent). This is mainly because of high shares of NEET among those over 50 years old.

The regression results in Table 17.3 shed more light on how the gender gap changes at critical points in men's and women's lives by controlling for headship, marital status, parenthood, education, age, and geographic zone. After controlling for these characteristics, we continue to see that women are less often employed in household agriculture and more often are in the NEET category than men, based on significant differences in the constant term for those models. However, we do not observe such gender differences for the other employment types.

Employment patterns may change after critical life-cycle events, such as marriage and raising young children, and patterns of change for men and

TABLE 17.2 Employment in rural areas, comparing youth and non-youth

Employment past year	Youth ages 15–24 (%)				Non-youth ages 25–59 (%)				Youth vs. non-youth		
	All	Men	Women	Test	All	Men	Women	Test	All	Men	Women
Household agriculture	34.8	42.8	28.0	***	46.5	57.8	36.9	***	***	***	***
Nonagricultural enterprise	12.2	12.0	12.4		21.2	21.0	21.3		***	***	***
Wage	37.8	46.2	30.7	***	34.2	43.5	26.4	***	**		**
Agricultural wage	22.3	24.5	20.4	*	22.1	26.1	18.7	***			
Nonagricultural wage	17.7	24.4	12.1	***	14.3	21.4	8.2	***	***		***
No employment	29.8	18.1	39.5	***	18.2	4.2	30.1	***	***	***	***
NEET	15.9	6.6	23.6	***	18.0	4.1	29.9	***	*	**	***
Education or training	13.9	11.5	15.9	**	0.2	0.1	0.2		***	***	***
Observations	1,707	778	929		4,455	2,043	2,412				

Source: Authors' calculations using MPLCS 2015.

Note: Individuals engaging in multiple activities are counted in each applicable category. Stars indicate significant differences by gender and by age categories at * $p < .10$; ** $p < .05$; *** $p < .01$.

women may differ (Table 17.3). Married men are more likely to be employed as agricultural wage workers and in household agriculture compared with unmarried men, even when controlling for age. Meanwhile, married women are less likely than unmarried women to be employed as agricultural wage workers. Whereas married men are less likely to be in the NEET category, married women are more likely to be in it. The different impact of marriage on NEET for men and women, while controlling for being parents of young children (see next paragraph), suggests that marriage is a constraint to employment or to employment-related education for women. Women in Myanmar face strong cultural expectations related to household and care activities, which limits employment opportunities, discourages continued engagement in employment after marriage, or discourages marriage as such.

Parenthood affects men and women in different ways. Mothers of young children are more likely NEET than women without children, but we do not observe such a difference between men with or without young children (Table 17.3). Rather, fathers with young children more often perform nonagricultural wage employment than other men. This again demonstrates the strong influence of norms related to women's greater responsibility for care activities in contrast with men's focus on income earning and employment. Parents of young children less often engage in household agricultural activity compared with other adults, regardless of gender. This pattern may be explained in part by parents of young children being at a relatively early

TABLE 17.3 Characteristics associated with different types of employment

	Agricultural wage			Nonagricultural wage			Household agriculture		
Characteristic	Men	Women	Test	Men	Women	Test	Men	Women	Test
Constant	0.349***	0.311***		0.105***	0.069***		0.391***	0.229***	***
Married	0.063**	−0.057***	***	0.003	−0.055***	**	0.091***	0.002	**
Parent of child under five	0.022	−0.034*	**	0.050**	−0.008	**	−0.049*	−0.067***	
Household head	0.088***	0.071***		0.021	0.005		−0.041	−0.059*	
Completed primary education	−0.169***	−0.124***	*	0.062***	0.114***	**	−0.060**	−0.105***	
20–24 years	0.019	0.003		0.114***	0.049**	*	0.068*	0.095***	
25–29 years	−0.027	0.030		0.065**	0.063***		0.138***	0.117***	
30–34 years	−0.062*	0.041	**	0.039	0.074***		0.120***	0.155***	
35–39 years	−0.108***	0.034	***	0.068*	0.059***		0.131***	0.143***	
40–44 years	−0.105***	0.006	**	−0.011	0.038*		0.175***	0.157***	
45–49 years	−0.128***	−0.006	**	0.011	0.026		0.228***	0.106***	**
50–54 years	−0.097**	−0.074**		−0.018	0.006		0.185***	0.097***	
55–59 years	−0.248***	−0.114***	***	−0.034	−0.006		0.193***	0.059	**
Hills and Mountains	−0.196***	−0.148***	*	0.047**	−0.012	**	0.146***	0.198***	
Dry Zone	−0.124***	−0.047***	***	0.146***	0.033**	***	−0.049*	0.079***	***
Coastal Zone	−0.102***	−0.146***	*	0.060***	−0.003	***	−0.157***	−0.124***	
Observations	2,821	3,341		2,821	3,341		2,821	3,341	

	Nonagricultural enterprise			NEET		
Characteristic	Men	Women	Test	Men	Women	Test
Constant	0.049**	0.059***		0.116***	0.224***	***
Married	0.014	−0.020		−0.077***	0.125***	***
Parent of child under five	0.000	−0.034*		0.003	0.109***	***
Household head	0.009	0.113***	***	−0.019	−0.058*	
Completed primary education	0.084***	0.098***		−0.041***	−0.109***	***
20–24 years	0.078***	0.096***		−0.041**	0.015	
25–29 years	0.115***	0.123***		−0.025	−0.030	
30–34 years	0.179***	0.189***		−0.032*	−0.120***	**
35–39 years	0.172***	0.197***		−0.017	−0.135***	***
40–44 years	0.138***	0.204***		−0.017	−0.072**	
45–49 years	0.144***	0.146***		−0.007	−0.015	
50–54 years	0.135***	0.145***		0.025	0.074**	
55–59 years	0.072*	0.121***		0.073***	0.122***	
Hills and Mountains	−0.025	−0.033*		−0.003	−0.038*	
Dry Zone	−0.018	0.029	*	0.013	−0.058***	***
Coastal Zone	0.040**	0.003		0.047***	0.195***	***
Observations	2,821	3,341		2,821	3,341	

Source: Authors' calculations using MPLCS 2015.

Note: NEET = not in employment, education, or training. "15–19 years" and Delta AEZ are base categories. Full results from these analyses, including standard errors of coefficients, are presented in Lambrecht, Mahrt, and Cho (2021). Asterisks indicate statistical significance of regression coefficients and statistically significant differences between men's and women's coefficients: * $p < .10$; ** $p < .05$; *** $p < .01$.

stage of household formation, and often not yet having their own farmland to cultivate.

When controlling for several key characteristics, with respect to most types of employment, household heads are not very different from individuals who are not household heads. However, household heads are more likely to perform agricultural wage work than are other household members. We found in our analysis that women, whether or not they are a household head, are more likely to run a nonfarm enterprise than men.

Both men and women work less often in agriculture, work more often in the nonagricultural sector, and are less often in the NEET category when they attained at least a primary level of education. However, the differences between those with and without primary education are significantly larger for women compared with men. The observed associations between age and employment in our regression analyses resemble the patterns described earlier, based on Figure 17.1 and Table 17.2. It is striking here that we find few gender differences—except in agricultural wage employment. Men are less often engaged in agricultural wage employment as they grow older, yet we do not observe such a pattern for women. We also notice regional differences in employment patterns, which vary for men and women. Compared with women in the Delta, women are more often NEET in the Coastal Zone but less often NEET in the Dry Zone.

AGRICULTURAL WAGE AND SELF-EMPLOYMENT

On average, female agricultural workers work fewer days than do male agricultural workers, although the difference is relatively small—roughly 10 percent (Table 17.4). The number of days that youth spend in agricultural wage employment does not differ considerably from that for non-youth. Strikingly, men who perform agricultural wage labor earn significantly higher wages than do women. Women's daily wages are, on average, only 71 percent of those of men. On a yearly basis, this wage gap is larger, with women earning on average 62 percent of men's yearly wage. Among youth, the gender gap is smaller and not significant, though still sizable (average of 3,076 kyat for men compared with 2,438 kyat for women).[5] Remarkably, young men's wages are significantly lower than those of older men, whereas the wages of young women are not significantly different than those for older women.

5 Any values cited in kyat refer to the 2015 kyat value. On April 30, 2015, the exchange rate for one US dollar was 1,093 kyat.

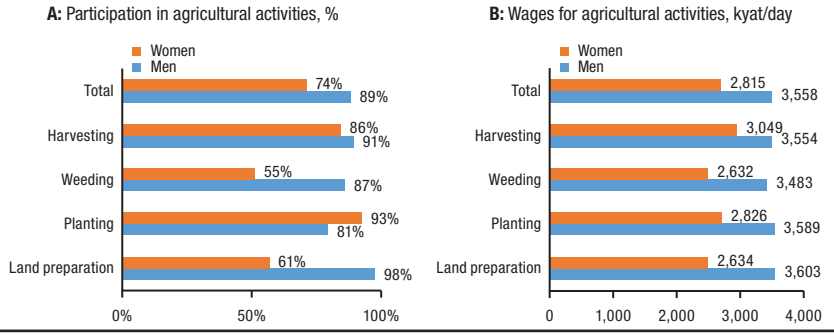
TABLE 17.4 Average days worked in the past 12 months, daily and annual wage reported by agricultural wage workers, by youth and non-youth and by gender

	Days worked in the past 12 months			Daily wage (kyat)			Annual wage ('000 kyat)		
Agricultural worker	Men	Women	Test	Men	Women	Test	Men	Women	Test
Agricultural workers	157 (n = 760)	141 (n = 623)	*	3,558 (n = 740)	2,517 (n = 621)	**	531 (n = 740)	327 (n = 621)	**
Youth (15–24 years) agricultural workers	160 (n = 202)	150 (n = 169)		**3,076** (n = 193)	2,438 (n = 168)	**	**470** (n = 193)	348 (n = 168)	**
Non-youth agricultural workers	156 (n = 558)	137 (n = 454)	*	**3,728** (n = 547)	2,550 (n = 453)	**	**553** (n = 547)	318 (n = 453)	**

Source: Authors' calculations using MPLCS 2015.

Note: Observations for each cell are presented in parentheses. T-test of statistically significant difference between men and women: * $p < .05$; ** $p < .01$. Youth and non-youth outcomes are in **bold** when statistically significantly different at $p < .10$.

FIGURE 17.2 Share of men and women participating in agricultural activities, community-level data



Source: Authors' analysis using MPLCS 2015.

Note: Men's and women's numbers are significantly different at $p < .01$, except for harvesting.

Figure 17.2 shows the share of communities where respondents reported that men or women performed specific farming tasks (Figure 17.2, panel A) and the wages they received (Figure 17.2, panel B). There are no tasks that are exclusively done by men or women in the country, but we do find some gender differences. Men more often perform land preparation and weeding, whereas women are more often reported to be planting. The finding related to weeding is somewhat unexpected, given that manual weeding is typically a woman's task. Nevertheless, this question likely also includes other methods of weed control that are more often implemented by men, such as the use of an inter-cultivator or another mechanical device for weeding, applying herbicide,

TABLE 17.5 Male and female labor contribution to household crop production in rural Myanmar

	Household labor days, average per year			Ratio of female labor days to total household labor days	Observations
	Men	Women	Test		
All crops (household level)	136	105	*	0.39	1,141

Source: Authors' calculations using MPLCS 2015.
Note: T-test of statistically significant difference between men and women: * $p < .01$.

or burning weeds. There is no significant difference in the share of communities with men and women harvesting.

The community data show a less dramatic, though still sizable, gender gap in agricultural wages, with little diversity depending on the farm activity (Table 17.4). In particular, the gender wage gap is largest during planting, where women earn, on average, 79 percent of men's daily wages. The wage gap is lowest for harvesting (87 percent).

When considering men's and women's contributions to household crop production, we find that female household members work fewer days on the farm than do male household members (Table 17.5). Their contributions are nevertheless sizeable. Among households that farm, women perform on average 39 percent of the days worked on the farm by household members. In total, male household members spend on average 136 days per year working on the farm, whereas female household members work on average 105 days per year on the farm.

Land rights

Access to agricultural land is a prerequisite for crop production. Women are less likely than men to have documented land rights and perceived rights to sell and to make parcel management decisions—though the discrepancies vary among those three components (Table 17.6; Figure 17.3). The largest male–female differences involve documented land ownership: 19 percent of adult men have land documents in their name, compared with only 7 percent of adult women. Not all parcels have documents, though, and a larger share of adult men (23 percent) and adult women (18 percent) have the right to sell a parcel. A much larger share, 34 percent of men and 19 percent of women, are considered parcel decision-makers. Conditional on having land rights, there are no significant differences in land sizes between men and women.

An equal share of adult men and women are considered joint documented landowners (5 percent) or to have joint rights to sell a plot (about 15 percent)

TABLE 17.6 Land rights of rural adults and older adults, by gender

	Adults ages 15–59 years			Adults in landholding households ages 15–59			Older adults ages >59 years		
Characteristic	Men	Women	Test	Men	Women	Test	Men	Women	Test
Documented landowner (%)	18.8	7.4	***	30.8	12.2	***	40.3	17.9	***
Joint (%)	5.0	4.6		8.2	7.6		9.9	6.4	*
Sole (%)	13.8	2.8	***	22.6	4.6	***	30.5	11.5	***
If so, land size (acres)	6.5	6.2		6.6	6.2		7.2	8.1	
Has right to sell (%)	22.8	17.9	***	37.3	29.3	***	47.1	31.1	***
Joint (%)	15.6	15.2		25.5	25.0		29.7	20.2	***
Sole (%)	7.2	2.6	***	11.8	4.3	***	17.4	11.0	**
If so, land size (acres)	6.4	6.1		6.4	6.1		7.6	7.4	
Parcel decision-maker (%)	33.7	19.0	***	55.3	31.1	***	53.3	23.2	***
Joint (%)	18.3	15.9	**	30.0	26.0	**	27.9	14.6	***
Sole (%)	15.4	3.1	***	25.3	5.0	***	25.4	8.6	***
If so, land size (acres)	6.2	5.8		6.2	5.8		6.6	7.6	
Observations		6,162			3,595			1,033	

Source: Authors' calculations using MPLCS 2015.

Note: T-test of statistically significant difference between men and women: * $p < .10$; ** $p < .05$; *** $p < .01$.

(Table 17.6). The low share of joint documented land rights is likely the consequence of the usual practice of only one name being written on land documents. Overall, men are significantly more likely to have sole land rights compared with women, as documented owners (14 vs. 3 percent), as those having rights to sell (7 vs. 3 percent), and as parcel decision-makers (15 vs. 3 percent). The extent to which one household member effectively exercises his or her land rights alone would merit further research, as social norms in many communities in Myanmar prescribe that these rights are shared with other household members through intra-household dialogue and agreement (Akter et al. 2017).

Age is an important consideration when studying land rights. Figure 17.3, Table 17.6, and Table 17.7 all show how the share of adult men and women who have the right to sell land increases with age. Male and female youth rarely are the documented landowners (1.3 and 0.6 percent, respectively), have rights to sell a parcel (2.5 and 1.0 percent), or are parcel decision-makers

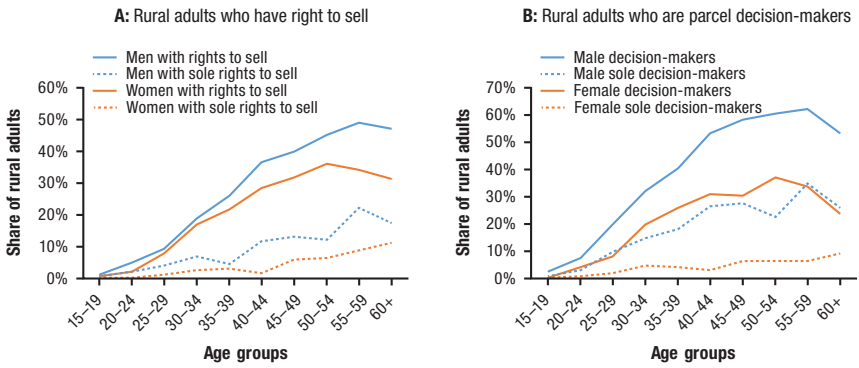
TABLE 17.7 Land rights of rural adults, comparing youth and non-youth

	Youth ages 15–24 years			Non-youth ages 25–59 years			Youth vs. non-youth		
Characteristic	Men	Women	Test	Men	Women	Test	Men	Women	Test
Documented landowner (%)	1.3	0.6		25.3	10.0	***	***	***	***
Joint (%)	0.7	0.6		6.6	6.2		***	***	***
Sole (%)	0.6	0.0		18.6	3.9	***	***	***	***
If so, land size (acres)	3.5	4.1		6.6	6.3		***	***	
Has right to sell (%)	2.5	1.0	**	30.2	24.2	***	***	***	***
Joint (%)	1.5	1.0		20.8	20.6		***	***	***
Sole (%)	1.0	0.0	**	9.5	3.6	***	***	***	***
If so, land size (acres)	3.3	3.3		6.5	6.1		***	***	***
Parcel decision-maker (%)	4.2	1.7	***	44.7	25.5	***	***	***	***
Joint (%)	2.9	1.5		24.0	21.3	*	***	***	***
Sole (%)	1.3	0.2	**	20.7	4.2	***	***	***	***
If so, land size (acres)	3.3	6.5		6.3	5.8			***	
Observations		1,707			4,455				

Source: Authors' calculations using MPLCS.

Note: T-test of statistically significant difference between men and women or youth and non-youth: * $p < .10$; ** $p < .05$; *** $p < .01$.

FIGURE 17.3 Male and female rural adults who have right to sell or are parcel decision-makers, by age



Source: Authors' analysis using MPLCS 2015.

(4.2 and 1.7 percent). These shares increase with age, though they reverse downward again for women over 54 years old and for men over 59 years old. Among those who are at least 60 years old, 40 percent of men and 18 percent of women are documented as landowners, and 47 and 31 percent, respectively, have the right to sell a plot. They also continue to actively engage in parcel decision-making, at 53 and 23 percent, respectively.

Table 17.8 shows the results of regression analyses on how key life-cycle events, including marriage and parenthood, are associated with land rights and parcel decision-making. Note that these analyses are restricted to non-youth, given that there are so few youth who have rights to sell land or who make parcel decisions—especially among women. Our dataset does not include any rural female youth who have sole rights to sell a parcel. Overall, women less often have sole rights to sell a parcel and are less often joint or sole parcel decision-makers compared with men, even after controlling for a set of potentially confounding factors such as household headship, marital status, parenthood, education, or age.

Household heads more often have land rights and more often make decisions related to land. However, among female household heads, we do not observe a positive association between headship and joint rights, but we do observe a stronger association between sole rights and decision-making. This is likely because female household heads are often widowed.[6] Marriage strengthens joint land rights and decision-making and does not have a significantly different effect on men and women. Fathers of young children less often have the right to sell land or make decisions, which again may relate to the early stage they are at in household formation. Rights and decision-making increase with age, and women, in particular, seem to catch up with men as they age and gain joint parcel decision-making power.

There are also significant differences across geographic zones. Delta is the base AEZ category in our analysis, to which we compare the other zones. Notable is the higher share of rural men and women with joint land rights in the Hills and Mountains, where landlessness is lower on average compared with other parts of the country and land rights are often regulated differently. In other words, adults more often have rights to sell land in the Hills and Mountains, and those land rights are mostly jointly held. Compared with the Delta, women in the Dry Zone more often report joint land rights, whereas men there less often report sole land rights. Whereas an adult in the Dry Zone

6 Sixty percent of women household heads ages 15 to 59 years are widowed, 10 percent are divorced or separated, and 12 percent are single.

TABLE 17.8 Multivariate probit analysis of joint and sole rights to sell land and parcel management decisions, for non-youth (25–59 years)

Characteristic	Joint right to sell			Sole right to sell			Joint parcel decisions			Sole parcel decisions		
	Men	Women	Test	Men	Women	Test	Men	Women	Test	Men	Women	Test
Constant	−2.856***	-2.977***		−2.619***	−3.539***	**	−2.355***	−2.970***	***	−2.262***	−3.381***	***
	0.223	*0.205*		*0.256*	*0.350*		*0.189*	*0.202*		*0.203*	*0.346*	
Married	0.586***	0.896***		−0.072	0.300		0.562***	0.779***		0.272	−0.054	
	0.186	*0.137*		*0.208*	*0.204*		*0.164*	*0.131*		*0.175*	*0.196*	
Parent of under five	−0.222*	−0.129		−0.021	−0.113		−0.205*	−0.177	*	0.059	−0.134	
	0.116	*0.119*		*0.139*	*0.239*		*0.112*	*0.117*		*0.116*	*0.233*	
Household head	0.732***	−0.049	***	1.160***	1.883***	**	0.705***	0.123	***	1.071***	2.146***	***
	0.146	*0.187*		*0.196*	*0.210*		*0.132*	*0.178*		*0.146*	*0.201*	
Completed primary	0.015	0.035		−0.404**	0.139		−0.319**	−0.260*		−0.178	−1.073**	*
	0.147	*0.152*		*0.206*	*0.267*		*0.144*	*0.156*		*0.149*	*0.476*	
30–34 years	0.416**	0.536***		0.231	0.404		0.324*	0.790***	*	0.159	0.696**	
	0.212	*0.191*		*0.244*	*0.345*		*0.180*	*0.188*		*0.193*	*0.343*	
35–39 years	0.770***	0.883***		0.036	0.482		0.563***	1.082***	**	0.298	0.543	
	0.200	*0.186*		*0.245*	*0.340*		*0.174*	*0.185*		*0.185*	*0.348*	
40–44 years	0.994***	1.229***		0.580**	0.116		0.644***	1.342***	***	0.629***	0.589*	
	0.205	*0.190*		*0.236*	*0.394*		*0.183*	*0.190*		*0.188*	*0.355*	
45–49 years	1.048***	1.195***		0.821***	0.848**		0.877***	1.159***		0.922***	0.869**	
	0.213	*0.195*		*0.239*	*0.341*		*0.192*	*0.195*		*0.197*	*0.343*	
50–54 years	1.194***	1.518***		0.698***	0.688**		0.923***	1.506***	**	0.640***	0.259	
	0.217	*0.198*		*0.250*	*0.350*		*0.196*	*0.198*		*0.207*	*0.369*	
55–59 years	1.134***	1.356***		1.144***	1.084***		0.863***	1.365***	*	1.074***	0.363	*
	0.229	*0.209*		*0.251*	*0.342*		*0.210*	*0.207*		*0.212*	*0.367*	
Hills and Mts.	0.363***	0.608***		−0.024	0.260		0.814***	0.913***		0.282**	0.676***	
	0.128	*0.120*		*0.151*	*0.211*		*0.128*	*0.119*		*0.133*	*0.215*	
Dry Zone	0.059	0.305**		−0.378**	0.142	**	0.255**	0.327***		−0.146	0.336	*
	0.128	*0.120*		*0.155*	*0.212*		*0.125*	*0.120*		*0.128*	*0.218*	
Coastal Zone	−0.434***	−0.308**		−0.543***	−0.241		−0.274**	−0.098		−0.697***	−0.212	*
	0.132	*0.125*		*0.151*	*0.218*		*0.126*	*0.122*		*0.131*	*0.237*	
Observations				2,043	2,412					2,043	2,412	

Source: Authors' calculations using MPLCS 2015.

Note: "25–29 years" and Delta AEZ are base categories. Asterisks indicate statistical significance of regression coefficients and statistically significant differences between men's and women's coefficients: * $p < .10$; ** $p < .05$; *** $p < .01$. Standard errors are in italics. Mts. = mountains.

is slightly less likely to have any land rights, those who do have land rights more often have joint rather than sole land rights. Adults in the Coastal Zone are least likely to have the right to sell land.

Loans

About 26 percent of adult men and 21 percent of adult women had received a loan in their name in the previous 12 months, but only 4 percent of rural youth had done so (Table 17.9). When considering all loans taken by rural adults, women receive almost half (52 percent) of all loans. This apparent discrepancy is explained by a higher share of women taking multiple loans than men and the fact that there are more adult women than adult men living in rural households.

Loans received by women and youth are significantly smaller in value compared with those received by men (Table 17.9). The average value of women's loans is significantly lower (218,317 kyat) than the value of men's loans (396,738 kyat). This gender difference is not offset by the fact that women take more loans than men; the total size of loans women take is significantly and substantially lower than those taken by men (respectively, 332,135 kyat and 552,781 kyat). Loans received by youth are smaller (166,432 kyat) compared with those of non-youth (310,641 kyat).

Agriculture is the main purpose of loans, and such loans are nearly twice as often taken by men than by women (46 vs. 24 percent). Women's loans are more often driven by food consumption needs (31 percent) or health expenditures (26 percent) than are loans taken by men (respectively, 22 and 19 percent). Youth take fewer loans for agricultural purposes (24 percent) than non-youth (35 percent). These lending patterns by gender and age group follow trends in employment and household roles.

MADB is the source of 32 percent of loans received by rural men, compared with only 9 percent for women. To a large extent, this pattern coincides with gender differences in documented land ownership. However, we find that, among reported recipients of MADB loans, 19 percent of men and 46 percent of women do not have land certificates in their name. It is likely that some branches have allowed these household members to receive loans on behalf of documented owners or have relied on other methods to identify formal landownership. Loans taken by women compared with men are more often provided by moneylenders (37 vs. 25 percent) or by group lending or microfinance institutions (13 vs. 8 percent). Finally, women's loans more often required collateral, which is likely related to their more frequent engagement with pawn shops and moneylenders. Most loans that require collateral are from moneylenders or pawn shops (76 percent), but a major portion also comes from friends or relatives (16 percent).

TABLE 17.9 Characteristics of loans received by rural adults, by gender and age group

Characteristic	Men	Women	Test	Non-Youth	Youth	Test
Per adult						
Did person receive a loan? (%)	25.6	21.1	***	30.4	3.8	***
Adults (number)	2,821	3,341		4,455	1,707	
If any loan						
Loans per adult receiving (average number)	1.4	1.5	**	1.5	1.3	
Total value of loans (kyat)	552,781	332,135	***	454,392	220,152	***
Adults receiving loans (number)	690	689		1,320	59	
Per loan received by rural adults						
Share of loans received (%)		51.5			4.1	
Loan value (kyat)	396,738	218,317	***	310,641	166,432	***
Loan purpose						
Agriculture (%)	46.1	24.2	***	35.3	23.6	*
Nonfarm enterprise (%)	3.8	7.4	***	5.5	9.0	
Health expenditure (%)	19.2	25.6	***	22.5	23.7	
Food expenditure (%)	21.8	31.0	***	26.5	28.1	
Loan source						
MADB (%)	31.5	8.5	***	20.1	9.7	**
Other bank (%)	4.5	3.7		4.3	0.6	***
Moneylender or pawn shop (%)	24.7	36.9	***	30.8	33.9	
Microfinance institution (%)	8.4	13.4	***	11.1	7.4	
Relatives, friends (%)	0.8	4.3	***	2.5	4.2	
Required collateral (%)	3.7	8.0	***	5.9	4.8	
Loans (number)	942	1,023		1,891	74	

Source: Authors' calculations using MPLCS 2015.

Note: MADB = Myanmar Agricultural Development Bank. Asterisks indicate statistically significant difference of means of men and women or youth and non-youth, based on t-test: * $p < .10$; ** $p < .05$; *** $p < .01$.

Gendered livelihoods during a triple crisis

The crises that hit Myanmar in recent years have affected the livelihoods of nearly everyone, regardless of gender or age (NRM 2022). Nevertheless, such shocks and crises, including the relevant ensuing policy responses, can influence existing gender and generational discrepancies (Ragasa and Lambrecht 2020). Even though information is limited, and recent data are scarce, it is important to reflect on such gender- and age-differential impacts of

Myanmar's current troubled setting and the extent to which they may be sustained in the future.

The global economic downturn during and after the COVID-19 pandemic, as well as economic sanctions imposed after the military takeover, have meant that many manufacturing businesses have been forced to reduce operations or close entirely. It is estimated that, at the start of the pandemic, a similar share of working men and women were employed in COVID-19-sensitive economic sectors (Diao et al. 2020). The crisis had significant impacts on Myanmar's garment industry, which employs mainly young women, and, thus, many young women were left jobless. Yet sectors that employ a larger share of men, such as construction and transport, also had strong declines in operations (Lambrecht et al. 2020).

Many civil servants, particularly those holding middle- and lower-level civil service positions prior to the coup, have ceased their work to express disagreement with the military takeover. Prior to the crises, these positions, including many salaried jobs in the education and health sectors, were filled more often by women than by men (NRM 2022). However, this situation also arose in the banking sector and on the railways, where positions are more often held by male workers (Al Jazeera 2021).

Individuals at the lower end of the income scale, including those who must travel to pursue livelihood opportunities as temporary migrants or traders, but also farmers with plots located farther away from their homestead, are less able to pursue their usual work in the current context of security and economic crisis (NRM 2022). Roughly one year after the military coup, about 1 percent of rural adults in the labor force were unable to go to work because of ongoing violence or related movement restrictions. This share was significantly higher among women (1.2 percent) than men (0.8 percent), based on the MHWS Round 1.

Conclusions

Our assessments show a nuanced picture of the role of women and youth in Myanmar's agriculture sector. Women and youth's labor contributions to agricultural work are large. Gender and age patterns in employment are apparent and follow somewhat stereotypical expectations—but also tend to be relatively modest.

A large proportion of rural women in Myanmar are employed in agriculture, either in household agricultural activities (35 percent) or as agricultural

wage workers (19 percent). Women in farm households account for 39 percent of household farm labor days on average, and 43 percent of agricultural wage workers are women. Youth, too, are prominent in agricultural employment: they account for 22 percent of adult agricultural wage workers and 27 percent of adult household agricultural workers.

Nevertheless, there are clear gender discrepancies in rural employment. In general, women are less often employed in agriculture than men, and youth and women earn significantly lower wages than non-youth adult men. A significant share of women drop out of agriculture when the load of childcare is highest; this is particularly the case among parents of young children. Mothers of children under five years old are much more often unemployed than are women without young children, whereas this is not the case for men. This pattern is mainly observed for agricultural and nonagricultural wage employment but not for work in household agricultural or nonagricultural enterprise activities. This is similar to patterns observed globally, where women prioritize unpaid care work at home, whereas men focus on generating a household income (Heckert et al. 2021).

Compared with the high share of rural adults engaged in agricultural employment, a relatively low share of rural adults are documented landowners and have the right to sell land or make parcel management decisions. Moreover, a clear gender gap appears when considering land rights and parcel decision-making. Almost three times as many adult men as adult women are documented landowners, though, to a large extent, this is a consequence of the common practice of putting only the household head's name on land documents. The gap is narrower when considering the right to sell a parcel, where this ratio of men compared with women drops to 1.27. Men are more often parcel decision-makers than women, at a ratio of 1.77.

Youth rarely have documented ownership rights or rights to sell land and are seldom parcel decision-makers. Unlike in many other cultures, in Myanmar, marriage is not an event that results in access to land for a substantial share of rural young people. Rather, the share of adults obtaining land rights increases gradually with age.

When considering agricultural activities, we do not find any major activities that are solely performed by men or women across Myanmar. However, some activities, such as land preparation, are more often done by men, while women more often plant crops. Regardless of the activity, women and youth are paid significantly less than men for their work.

Women are less often loan recipients than men, and youth rarely receive loans. Moreover, loans that women and youth receive are significantly smaller

in value. Motivations for taking loans are consistent with gender stereotypes—women's loans are more often focused on alleviating health or food expenditure shortfalls. Such loans often require collateral, with the associated risk of asset loss. In contrast, men's loans are more often aimed at investments in farm or nonfarm enterprise activities.

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