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Myanmar Migration in a Time of Transformation: 2011-2020

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ABSTRACT

Rural out-migration to both domestic and international destinations counts among the key phenomena that defined a decade of transformation in Myanmar from the 2011 economic reforms until the onset of the COVID-19 pandemic in 2020. We analyze data from four surveys conducted in different areas of rural Myanmar from 2015 to 2018, along with relevant literature, to highlight trends in migration and its contributions to economic growth and rural development. Studied areas include Mon State, as well as parts of the Ayeyarwady Delta, the Central Dry Zone, and Shan State. Our analysis allows us to draw several inferences:

- Flows of migrants out of the rural sector were substantial and accelerated over the period studied, with Yangon and Mandalay attracting the most domestic migrants and Thailand attracting the most international migrants;
- Migrants include both men and women in nearly equal proportions and from all socio-economic backgrounds;
- Remittances from migrants contribute significantly to the incomes of families left behind, supporting everyday consumption expenses, farming and business operations, and investments;
- Migration contributes to agricultural transformation by tightening rural labor supply and driving up rural wages, which incentivizes agricultural mechanization;
- Migration contributes to the diversification of rural incomes. Moreover, remittance-fueled demand stimulates growth in rural non-farm activities, such as in commerce and in a burgeoning home construction sector; and
- Though data is scarce, preliminary evidence suggests that COVID-19 and associated containment measures have caused a large contraction in migration flows, which has resulted in negative impacts on the livelihoods of households relying on them.

1. INTRODUCTION

The past decade has seen Myanmar transform at breakneck speed. Following economic and political reforms initiated in 2011, the country's population has been adapting rapidly to new opportunities, including through relocation and migration.[1] This paper aims to describe some of the patterns and dynamics related to these population flows, as well as their consequences for Myanmar's rural economy.

The existence of substantial flows of migration from and within Myanmar is not a novel phenomenon. However, the drivers and dynamics have evolved. In the past, much migration within and from Myanmar was driven by conflict. However, over the last decade–with some notable exceptions, such as the mass exodus of Rohingya from Rakhine State–most migration has been driven by economic factors.

Migrants seeking higher incomes or an escape from poverty head toward the country's growing cities or across the border to economically vibrant neighbors where wages are higher. Some of these flows have been substantial for many years: in Thailand, major industries have been relying on Myanmar workers for decades (Chantavanich and Vungsiriphisal 2012; Griffiths and Ito 2016). International agreements have made it easier for Myanmar migrants to enter and work in Thailand legally. Policy changes, booming trade, and improved road infrastructure all contribute to increasing migration flows.

Rapid flows of migrants out of Myanmar's villages do not equate to draining the rural sector of its resources. On the contrary, migrant earnings and remittances bolster rural incomes and offer significant opportunities for rural growth. These remittances help secure household consumption levels, finance house construction, contribute to the cost of agricultural operations, and fund business investments. Migration is an active part of the structural transformation processes building a dynamic and resilient rural economy in Myanmar.

At the same time, migration poses both challenges for the rural sector and risks to migrants themselves. Agriculture needs to adapt and raise labor productivity to remain profitable. Many young migrants decided to cut short their education, which may have long-term adverse consequences in terms of human capital development. Migrants may also face dangers, such as precarious work conditions, harassment, or exploitation. Recently, the COVID-19 crisis provided a stark reminder that remittance flows can be disrupted, leading to a severe income shortfall for households that rely on them.

This paper provides an empirically based discussion of the patterns, opportunities, and challenges presented by rural out-migration in Myanmar based on four household datasets. The four zones where data was collected are Mon State, the Ayeyarwady Delta Region, the Central Dry Zone, and Shan State (**Error! Reference source not found.**). Migration is an important aspect of the economies in these four areas, but each with specificities worth highlighting and contrasting. In the following sections, we first present the surveys used and the data analyzed (Section 2), followed by the overall trends and patterns of migration, as well as migrant characteristics in each region (Section 3). We then outline the economic incentives for migration and its role in household incomes (Section 4). Next, we assess the impact of migration on agriculture (Section 5) and the non-farm rural economy (Section 6). Finally, we discuss the likely impacts of COVID-19 on migration (Section 7), before concluding.

[1] Recent national political developments, which began 1 February 2021, have resulted in the political situation in Myanmar currently being in flux. At the time that this Working Paper was being prepared for publication, it was too early to tell how these political changes will affect patterns of relocation and migration in Myanmar.

2. SURVEYS AND DATA

The primary sources of data used in this work are four large household surveys conducted by Michigan State University, the Center for Economic and Social Development, and the International Food Policy Research Institute between 2015 and 2018. Each survey was designed to answer a unique set of research questions, but followed a similar structure in terms of content, design, and implementation. Details are summarized in Table 1. Survey locations are illustrated in Figure 1. Each survey included a household and a community questionnaire–see Belton et al. (2021) for full details.

Table 1: Summary of household survey details

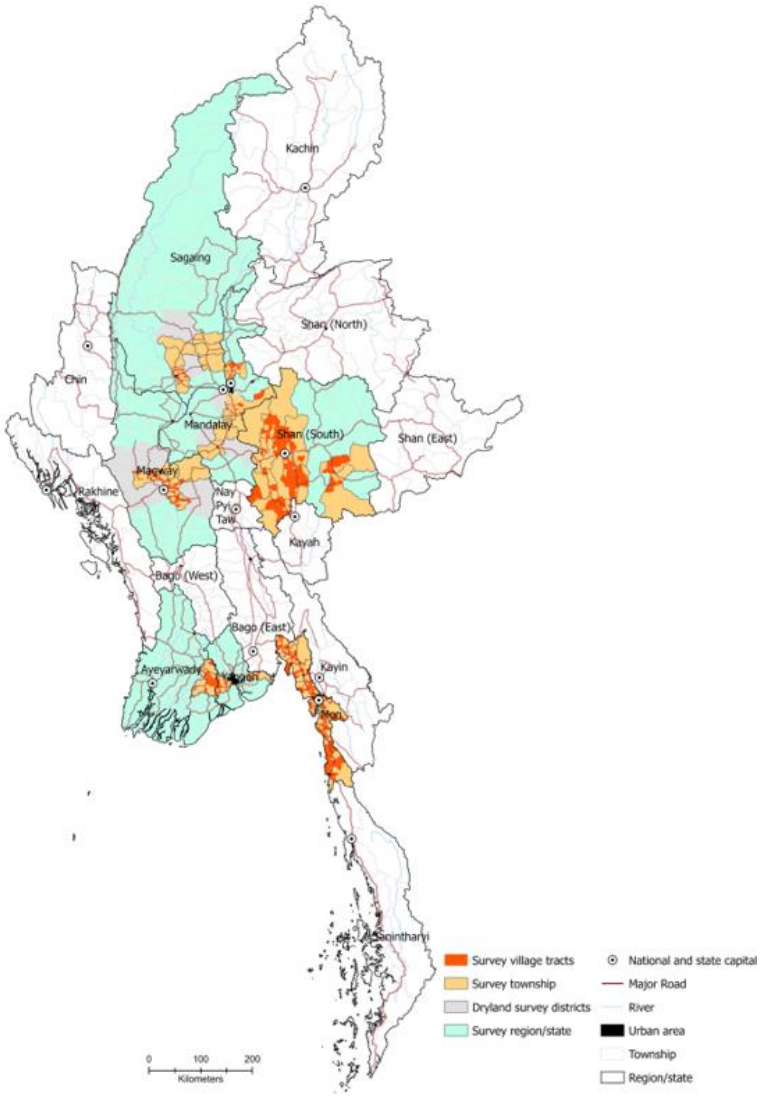
State/region	Mon	Ayeyarwady	Dry Zone	Shan
Survey year	2015	2016	2017	2018
Household sample size	1,632	1,102	1,578	1,562
Area & population represented	Rural population of all 10 townships of Mon State.	40 rural village tracts from four townships of Ayeyarwady and Yangon (25 with high concentrations of fishponds, 15 where paddy and pulses were the main crops).	Rural population of four townships from three regions (Magway, Mandalay, and Sagaing) covering major Dry Zone agroecologies.	99 rural village tracts producing maize or pigeon pea, in nine townships in southern Shan.
Size of population represented	273,002 households	37,390 households	160,512 households	201,285 households

Source: Belton et al. (2021)

The four household surveys were each designed to capture detailed information on rural livelihoods. All surveys included modules on household demographics (age, gender, level of education), assets (land and other productive assets), and income generating activities (agriculture, off-farm employment, natural resource extraction). Additional details on input use and output were collected regarding crops of interest, which varied from survey to survey (Table 1). Three of the surveys included modules on food and non-food consumption and expenditure. All surveys included a migration module which covered, at a minimum, the demographic characteristics, current location, and occupations of current migrants, as well as remittance flows. All surveys collected information on past migration and returned migrants, with the Mon State survey being the most detailed and the Ayeyarwady survey the least (Belton et al. 2021).

All samples were based on the sample frame of the 2014 National Census and were defined with support from staff of the Department of Planning. Enumeration areas were selected randomly by probability proportional to size. Specific sampling procedures varied with the purpose of each survey. The Mon State sample is representative of the entire rural population of the state, whereas the other surveys are representative at sub-state or sub-region levels. The Ayeyarwady survey was designed to compare areas with high and low concentrations of aquaculture, dictating the choice of village tracts surveyed, and is representative of parts of the Ayeyarwady Delta region. The Dry Zone survey is representative of four townships selected to include the main agroecologies and farming systems of central Myanmar. Lastly, the Shan survey is representative of the rural population of village tracts from nine townships in southern Shan where maize or pigeon pea was farmed and the security situation permitted access for survey implementation (Belton et al. 2021).

Figure 1: Map of household survey locations



Source: Belton et al. (2021)

3. MIGRATION PREVALENCE, GEOGRAPHY, DEMOGRAPHICS, AND DYNAMICS

Migration is an important part of the economy in each of the four areas we studied. However, our data reveals marked differences in migration prevalence and patterns between each. In this section, we highlight similarities and differences in the broad migration parameters of each region, including overall prevalence, destinations, and migrant characteristics.

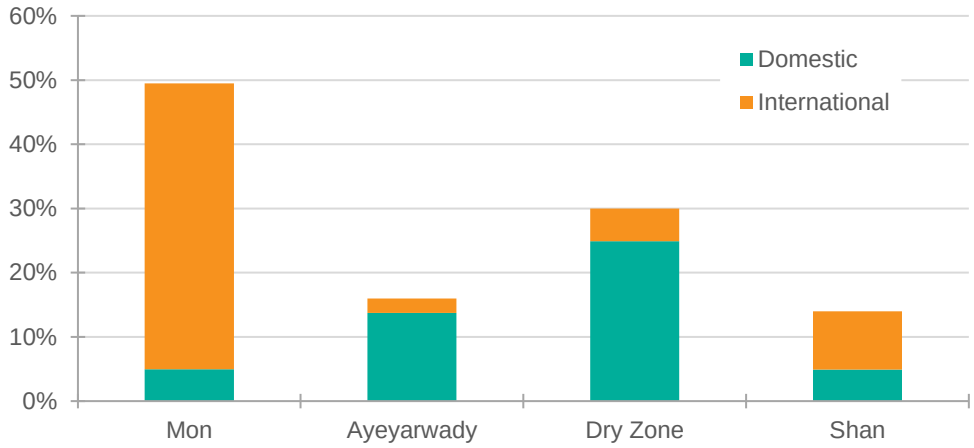
Statistics from the four study areas

The overall prevalence of migration in an area is highly context-dependent, as it reflects location, geographic features, transportation networks, and historical development of migration networks. Our four study areas reflect this diversity, as shown in Figure 2. We can contrast the four areas as follows[2]:

[2] These findings globally line up with those from the Myanmar Living Conditions Survey 2017, though their classification focuses on distinguishing “permanent/temporary” migration as rather than domestic and international (CSO et al., 2020).

- Mon State is by far the biggest sender of migrants. Forty-nine percent of households had a migrating member at the time of the survey. This migration is almost exclusively international.
- Dry Zone households also heavily engage in migration. Thirty percent have current migrants, though that migration is mostly domestic.
- The Ayeyarwady region almost exclusively sends migrants domestically. Nearly 16 percent of households had migrants at the time of survey.
- Shan State had the lowest migration rate (14 percent of households) and is the most balanced between international (9 percent) and domestic (5 percent) migration.

Figure 2: Percent of households with a current migrant, by state/region

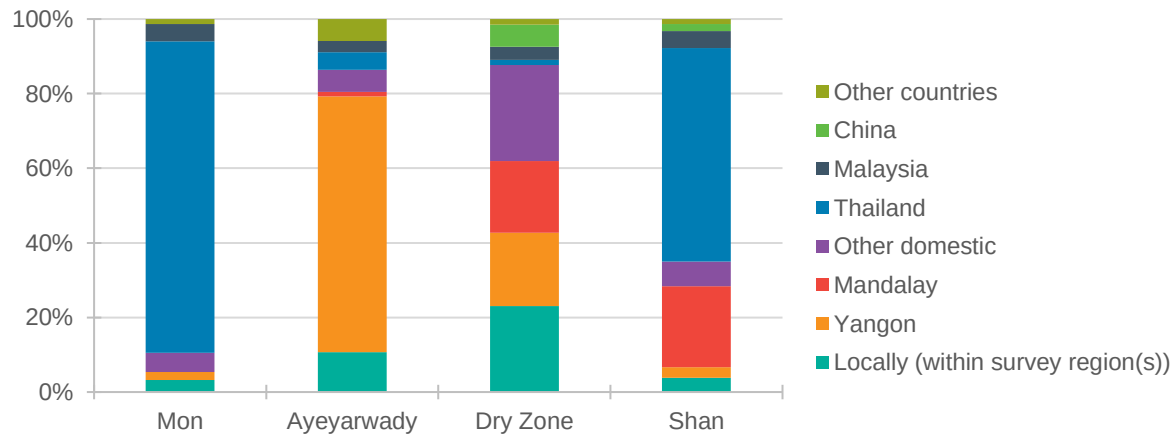


Sources: Filipski et al., (2017) and author calculations

Destinations and migration corridors

We further break down migration destinations by country or region (international or domestic) in Figure 3. Thailand is by far the most common international destination, and most migrants from Mon State and Shan State are in Thailand (83 percent and 67 percent, respectively). China is the most common international destination for Dry Zone migrants, though it represents only 6 percent overall, as most of them migrate domestically. Malaysia also attracts small shares of migrants from each of the four regions. These patterns are partly due to the geographic locations of our survey areas. However, the main finding is corroborated by analysis of the national census; 85 percent of all international remittances to Myanmar come from Thailand (CSO, UNDP, and WB 2020).

Figure 3: Migrant destinations, by state/region



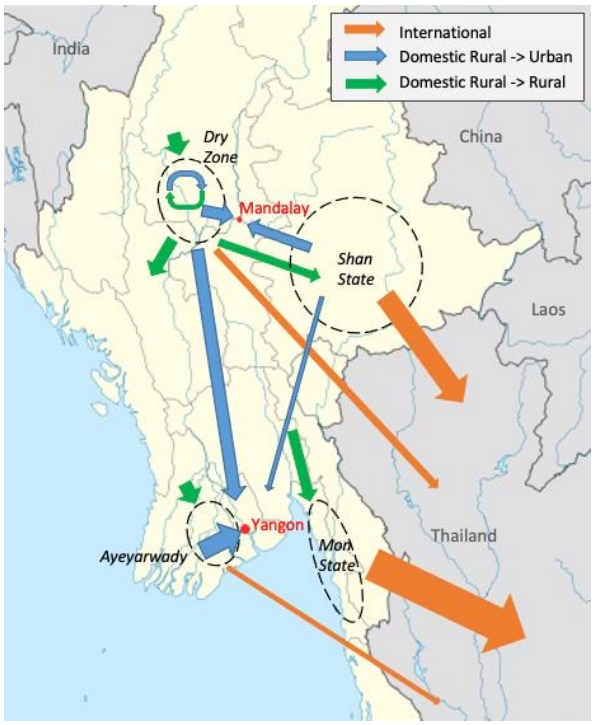
Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

Domestically, the most common destination for Ayeyarwady migrants is Yangon (69 percent). On the other hand, a large portion of Shan State migrants go to Mandalay (22 percent), while Mon State sends very few domestic migrants (<10 percent). The Dry Zone is the only area we surveyed where migration was not overwhelmingly dominated by just one or two destinations: Dry Zone migrants leave for Yangon, Mandalay, local destinations within their region, and other remote domestic destinations in roughly equal proportions, which reflects the geographic centrality of the Dry Zone.

While large cities are ultimately the primary attractors of domestic migrants, the role of rural-to-rural migration is significant. Many rural migrants from the Dry Zone travel to rural areas of Shan State for work. These rural-to-rural migration flows are sometimes the result of "secondary" migration pressures, whereby rural areas replace their outgoing migrant workers with incoming workers from other rural areas. For instance, during the rice harvest in Mon State, rural workers who leave for Thailand are often replaced by temporary migrants from Bago Region (Filipski et al. 2017).

Taken together, these migration flows define migration hubs and corridors, which we map in Figure 4. The dashed circular shapes delineate the general areas represented by our survey datasets. The arrows show the different types of migration flows we encountered in sizes that roughly capture their relative proportions. Migration generally flows southward through the country. International flows are clearly dominated by Thailand, while domestic migration is centered around the two urban hubs of Yangon and Mandalay. As workers from border regions flow into Thailand, workers from central regions flow into cities, and workers from remote areas flow inwards, migration corridors are formed throughout the country.

Figure 4: Approximate migration flows



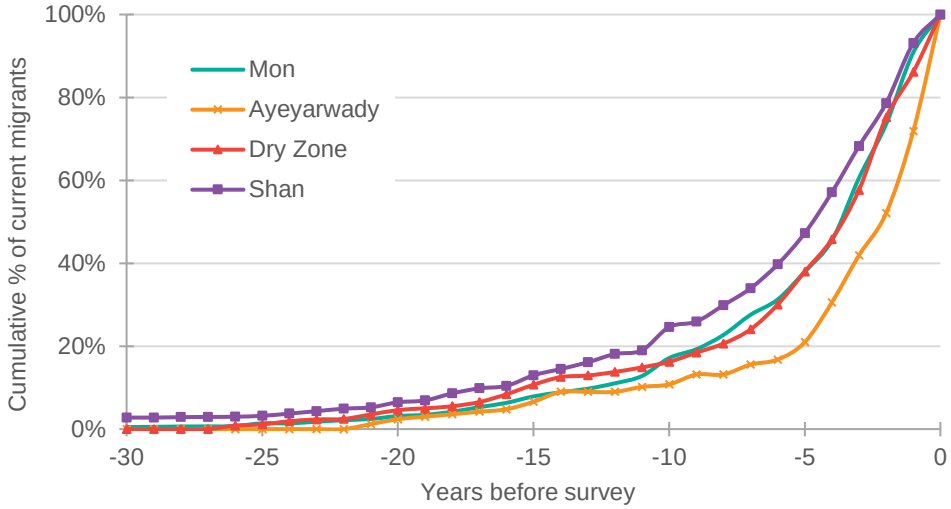
Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

Migration over time

While migration is not a new phenomenon in Myanmar, migration flows have accelerated dramatically over the past decade. Figure 5 shows the cumulative share of current migrants by year of first departure (which includes temporary migrants and repeat migrants), ending in 2017 for

comparability. In all four zones, more than half of all migrants had left after 2011 and the shape of the curves suggests a rapid acceleration with no sign of slowing down.[3]

Figure 5: Year of first migration, by state/region



Note: Endpoint (year of survey) is 2015 for Mon State, 2016 for Ayeyarwady, 2017 for Dry Zone, and 2018 for Shan State.
Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

Migrant characteristics

Migrants from rural Myanmar are mostly young, low-skilled, working-age adults. Table 2 shows the demographic characteristics of our four migrant samples.

Table 2: Migrant characteristics, by state/region

	Mon State	Ayeyarwady	Dry Zone	Shan State
Male (%)	54	55	62	52
Average age at time of departure (years)	24	20	21	-
Under 16 years (%)	8	12	2	3
Over 45 years (%)	10	-	12	3
Years of schooling	6	-	-	-
Never completed primary schooling (%)	27	-	49	38
From a landless household (%)	53	-	-	19

Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

The gender profile of migrants is split relatively evenly between women and men. The average age of migrants at the time of their first departure is under 25. It is lowest in Ayeyarwady, where the average migrant is 20 years old. Most migrants are of working age, with only a small fraction of migrants leaving before the age of 16. The highest share of migrants under 16 years of age is in Ayeyarwady (12 percent).

Migrants also tend to have low levels of education. In the Dry Zone, nearly half of all migrants never completed primary school. In Mon State, 27 percent never completed primary school. This is slightly higher than the national average for rural populations of 23 percent (CSO et al. 2020), suggesting that migrants tend to be less educated than their non-migrant peers.

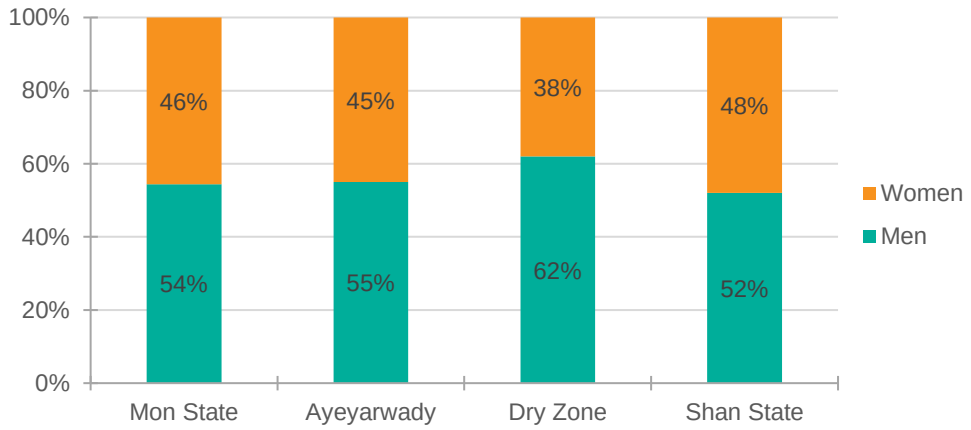
[3] Including former migrants does not change the conclusion that migration accelerated dramatically in the past decade in Mon State. While our data does not include historical migration records of former migrants for the other three regions, all evidence indicates that migration also accelerated recently in those areas.

Migrants come from all economic strata; 53 and 19 percent of migrants from Mon State and Shan State, respectively, came from a landless household, rates of landlessness similar to the general population in those states. Across all surveys, we found that the socio-economic profile of migrants is similar to that of the overall population.

Gender and migration

Men and women in Myanmar are nearly equally likely to migrate, with men migrants only slightly more numerous than women (Figure 6). The highest gender imbalance was in the Dry Zone.[4] This is largely driven by the higher propensity of Dry Zone men to engage in seasonal migration. Both genders are generally less likely to migrate if they are married or have dependents, without much difference by gender, i.e., married women or mothers are just as unlikely to migrate as married men or fathers. However, in Shan State we found evidence that the care of children left behind by migrant parents falls disproportionately on non-migrant women (Thu, Htun, and Belton 2020).

Figure 6. Gender of current migrants, by state/region



Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

We further found that most migration characteristics vary little by gender. Destinations are largely determined by origin (Mon migrants go to Thailand, Ayeyarwady migrants go to Yangon, etc.), with no sizeable gender differences. The same goes for length of stay, propensity to remit, or amounts remitted; men and women are equally likely to send money home and they send similar amounts. The uses of remittances sent by men and women also exhibited no material differences.

The most visible gender differences appeared in the types of jobs that migrants engaged in, though patterns appeared to be highly regionalized as migrants from different regions have access to different opportunities at their destination (Table 3). For instance, Ayeyarwady women were more likely than men to be working in factories in Yangon (51 versus 46 percent), while Shan women were less likely to do so than men (10 vs. 16 percent). In contrast, Shan women tend to migrate into jobs as domestic staff (35 percent), while their male counterparts do not, nor do any migrants from the Dry Zone, whether men or women. Consistently, migrant men are more likely to work in construction, though women also engage in construction work. Table 4 shows some of these patterns for the Dry Zone and Shan State surveys.

[4] See (CSO et al., 2020) for a nationwide study of migration patterns that shows more difference in propensity to migrate by gender.

Table 3: Differences in migrant occupations by gender, Dry Zone and Shan State

% of migrants engaged in:	Dry Zone		Shan State	
	Men	Women	Men	Women
Farm work	12	25	6	5
Factory work	19	23	16	10
Domestic staff	1	5	1	35
Services / Trade	17	12	17	18
Construction / Casual	35	20	27	14
Government job	2	9	18	12
Natural resources	9	0	4	0
Other	6	6	13	6
Total	100	100	100	100

Note: Mon State and Ayeyarwady Region surveys did not provide the same level of occupational detail.
Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

Migrant jobs

The migrants in our samples can mainly be characterized as low-skilled–their work experience prior to migrating is usually limited to farm work. Young migrants tend to leave immediately after school, and many have no work experience. In Shan State, 70 percent of migrants listed farming as their primary occupation prior to migrating, reflecting high levels of ownership of agricultural land there (Thu et al. 2020).

Most migrants go to urban destinations and take up a variety of non-farm jobs (Table 4). While these jobs typically require a semi-skilled labor force, migrants can learn on the job and acquire these skills over time. The two most common occupations across all four regions we surveyed are construction work and factory work. Construction activities were the largest employer of migrants from Mon State (24 percent), Dry Zone (29 percent) and Shan State (20 percent). Nearly half of Ayeyarwady migrants do factory work in the Yangon area (43 percent). About 15 percent of migrants also engage in services or trade, such as for instance food stands.

Table 4: Distribution of migrant jobs at destination, by state/region of origin

% of migrants engaged in:	Mon State	Ayeyarwady	Dry Zone	Shan State
Farm work	18	0	17	5
Factory work	21	44	20	13
Domestic staff	-	-	2	17
Services / Trade	15	-	15	17
Construction / Casual	24	-	29	21
Government job	-	-	5	15
Natural resources	8	-	6	2
Other	14	56	6	10
Total	100	100	100	100

Note: Questionnaires were less detailed in Mon State and Ayeyarwady Region, hence the missing details.
Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

While most migration is rural-urban, migrants are also an important source of farm labor. Participation in farm work by migrants is highly correlated with origin and destination of migration. Ayeyarwady migrants from our sample area go to Yangon, with very few working on farms. Shan State migrants are also unlikely to work on farms (5 percent). However, 18 percent of Mon State migrants work on farms, mostly in Thailand on rubber or fruit plantations (Filipski et al. 2017), and nearly 17 percent of Dry Zone migrants work on farms, mostly within Myanmar growing field crops.

4. MIGRATION AS AN INVESTMENT

Economic opportunities are among the key drivers of migration, as has been documented in numerous studies worldwide. Myanmar is no exception. The "New Economics of Migration" school of thought frames migration as an investment decision taken at the household level; household members migrate to seek higher earnings, part of which flows back to the household as remittances (Stark and Bloom 1985; Taylor 1999). Even long-term migration is often thought of as temporary, with migrants planning to return home after several years or even decades. In this section, we document the role of remittances and return migration.

Cost of migration

We have estimates of the cost of migration for three of our four surveys in Table 5. Values in the table include transportation costs as well as any logistics costs, such as broker or visa fees, but do not include rent nor cost of living at the destination.[5] The table shows an expected high variability of costs depending on distance and destination; domestic migration out of the Dry Zone costs only MMK 22,000 (USD 18) on average, while the mean cost of international migration out of Shan State rises to MMK 545,000 (USD 436).[6]

Table 5: Migration costs, by state/region

	Mon State	Ayeyarwady	Dry Zone	Shan State
Average cost in USD				
Domestic	74	-	18	24
International	349	-	78	436
Used loaned funds to migrate (%)	-	-	38	11

Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

These patterns reflect the nature of migration decisions as an investment; more distant destinations cost more to get to, but also bring higher rewards. This is very clear when looking at Mon State migrants. Migrating to Malaysia was about twice as expensive as migrating to Thailand, but yearly remittance amounts from Malaysia were also about twice as large (Filipski et al. 2017). More expensive migration can be more lucrative in the long run.

As with any potentially lucrative investment, households engaging in migration may decide to borrow money to finance the endeavor. Though we only have loan data for migration in the last two surveys, those for Shan State and the Dry Zone, we see that borrowing is not rare. While only 11 percent of households in Shan State took loans to migrate, up to 38 percent of Dry Zone migration is financed through loans. This highlights the nature of migration as not just an opportunity but also a risk, in some cases involving high-risk loans, dangerous working conditions, and exploitative labor arrangements (Belton, Marschke, and Vandergeest 2019; Griffiths and Ito 2016; Hein et al. 2015).

The role of remittances in Myanmar's rural economy

Migrants in all four of our surveys were likely to send remittances back to their rural home. Between 58 percent (Shan State, Dry Zone) and 81 percent (Ayeyarwady) of migrants had either sent or brought money back in the past twelve months (Table 6). The sums involved are substantial: an average migrant sends nearly MMK 1,000,000 per year (about USD 800), which is roughly equivalent to a full year of wages in their rural areas of origin. Dry Zone migrants send the lowest average remittance amount (MMK 662,000 or USD 529), while Ayeyarwady migrants send the highest

[5] Note that the area of the Ayeyarwady region we surveyed is about two hours away from Yangon, such that most migrants will have negligible costs of migration, as far as transportation and logistics are concerned.

[6] We use a USD 1 = MMK 1250 conversion factor for all amounts.

average amount (MMK 1,440,000 or USD 1,152). Differences in levels of remittances likely reflect both regional differences in wages and in costs-of-living. For example, Ayeyarwady migrants tend to work in or near Yangon, the economic capital of the country, where wages are relatively high.

Migration studies often argue that remittances can serve as the basis for rural development, as they provide households with funds that can be productively invested into agriculture and other growth activities (De Brauw 2019). However, our surveys suggest that most remittances are used to support everyday living expenses. Three of our four surveys collected information on the use of remittances (Table 6).

Table 6: Details of migrant remittances, by state/region

	Mon State	Ayeyarwady	Dry Zone	Shan State
Share of migrants who sent remittances (%)	66	81	58	58
Average remittance amount (USD/year)	654	1,152	529	640
Use of remittances				
Housing (%)	31	-	7	5
Day-to-day and other expenses (%)	14	-	64	66
Debt (%)	6	-	6	5
Medical (%)	15	-	3	6
Savings/investment (%)	33	-	21	18
Share of households receiving remittances (%)	42	12	30	15
Overall share of household income coming from remittances (%)	25	5	15	18

Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

In both the Dry Zone and Shan State, nearly two-thirds of remittances were used for everyday expenses. In Mon State, one-third of remittances went to housing, which is a trend readily visible throughout rural Mon State with the high density of homebuilding taking place. While home construction could be seen as a form of investment, it is not directly productive and can also be viewed as a form of conspicuous consumption (Wei, Zhang, and Liu 2012). Non-negligible shares of remittances are spent on medical expenses or debt service, which leaves less than one-third for savings or productive investments: 33 percent in Mon State, 21 percent in the Dry Zone, and 18 percent in Shan State. While those amounts are low–about MMK 200,000 per year (about USD 160)–they are not trivial and accumulate over time, suggesting that remittances likely contribute to significant productive investments and rural economic growth.

Beyond their contribution to investment, remittances play a key role in sustaining rural household incomes in ways that may be somewhat worrisome. The bottom of Table 6 shows that between 12 and 42 percent of households receive remittances, depending on the region (Boughton, et al. 2020). While in Ayeyarwady the share of remittances in total household income was only 5 percent, it was much higher in the other three areas we studied: 15 percent in the Dry Zone, 18 percent in Shan State, and 25 percent in Mon State. Remittances play a key role in supporting rural incomes and stabilizing them through diversification away from risk-prone agriculture. At the same time, some households which depend highly on remittances are left exposed to economic vicissitudes of a different kind, as was recently illustrated during the COVID-19 pandemic and lockdowns. This is addressed further below.

Return migration

Many of those who migrate do so temporarily. Even long-term migrants often plan to return to their village after having reaped enough returns, although not all are successful in achieving their targets. Because these migrants often learn skills while they are away, some of the migration literature emphasizes their potential roles as growth catalysts upon their return, having brought back skills that

may have been previously missing in their home villages (Junge, Revilla Diez, and Schätzl 2015). However, this is not frequently the case in our data.

Among the returned migrants, a majority reported family reasons as their impetus for return, including marriage, pregnancy, need to care for children/parents, death in the family, or a desire to be with family (Table 7). This is particularly the case for international migrants, who are less likely to settle permanently at their destination compared to domestic migrants. Forty-three percent of Mon State returned migrants stated family reasons as their primary reason for discontinuing their migration. Another major reason for migrants returning are poor working conditions, a factor most frequently mentioned by Mon State returnees (20 percent). A substantial share of Dry Zone migrants (23 percent) reported loss of jobs and lack of opportunities as their main reason for returning. It is noteworthy that poor working conditions, inability to find work, lack of legal status, and incapacity account collectively for between 37 (Mon State) and 46 percent (Dry Zone) of the reasons given for terminating migration, underlining some of the risks associated with migrating and indicating that it is not always a successful strategy.

Table 7: Primary reason for returning by state/region, in percent

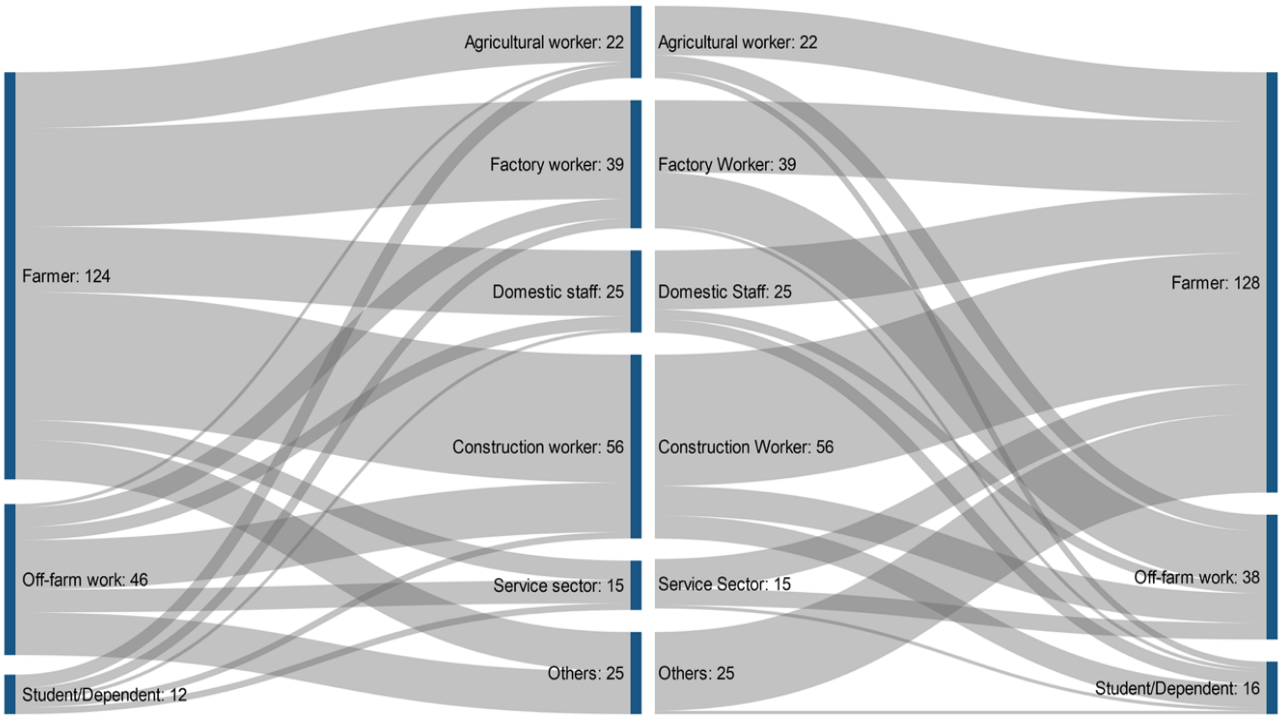
	Mon State	Ayeyarwady	Dry Zone	Shan State
Family reasons	43	-	17	23
Poor work conditions	20	-	14	17
Old age/incapacity to work	8	-	7	9
Loss of job/lack of opportunities	6	-	23	14
Lack of legal status	3	-	2	3
Job prospect at home / Start business	9	-	25	28
Other	11	-	12	6
Total	100	-	100	100

Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

For Mon State migrants, job prospects at home and job loss were seldom listed as a major opportunity for return (9 and 6 percent, respectively). Migrants from Mon State mostly go to Thailand where opportunities are both plentiful and lucrative. In contrast, Dry Zone and Shan State migrants are more likely to return for economic reasons such as job loss (23 and 14 percent, respectively) or an opportunity to find work or start a business at home (25 and 28 percent, respectively).

However, further analysis suggests that few migrants end up using the skills they acquired while away after their return. In Mon State, while about half of migrants reported having acquired skills abroad, those were mostly language skills (Filipski et al. 2017). Although 10 percent reported having acquired skills in factory production, those are hard to translate into productive returns at home unless there is a factory. The most common use of skills acquired abroad by Mon State migrants was agricultural, as rubber workers return home with seeds to start their own plantations. In Shan State, while very few migrants engage in farm work while away, the vast majority return to farming after they return home (**Error! Reference source not found.**7).

Figure 7: Primary activity before, during, and after migration



Source: Thu, Htun & Belton (2020)

5. MIGRATION AND AGRICULTURE

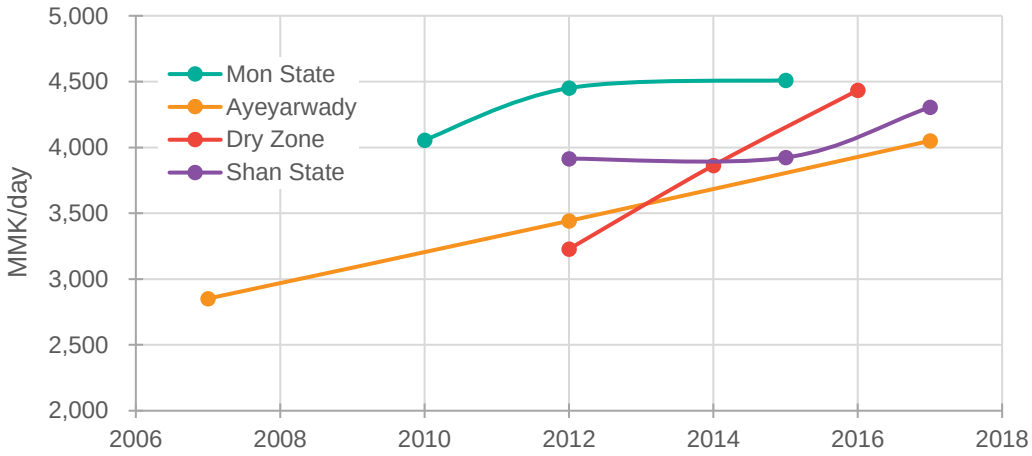
The relationship between migration and agriculture is complex and multifaceted. On the one hand, migration removes part of the rural labor force, giving rise to concerns about agricultural production and food security. On the other hand, there is evidence that these concerns are overblown and that households have options to maintain or increase food production despite labor out-migration (De Brauw 2019). In this section, we review how some of these dynamics are playing out in Myanmar.

Migration and rural wages

It is often assumed that rural workers leave for the city because the lack of work in the rural sector renders them “idle”. However, the reality may not be as extreme. Workers may have existing opportunities in the rural sector that are more poorly remunerated than urban ones. When that is the case, departing workers may leave rural producers with farm labor shortfalls. All surveys indicate that this has been happening in Myanmar’s rural sector.

A good indicator of tight labor supply is an increasing wage rate. In all four surveys, we found that real rural wages, i.e., after adjusting for inflation, have been rising and quite sharply so in the cases of Ayeyarwady and the Dry Zone (Figure 8). Rising wages point to a tightening of the rural labor market as workers migrate away. Wage rates in different geographical zones also appear to be converging, suggesting that labor markets are increasingly integrated over space, as would be expected given high levels of mobility and migration. This is a highly positive outcome for landless and land-poor rural households who derive a large share of their incomes from casual labor. These rising wages are reported to have contributed to improvements in welfare in the Dry Zone (Belton and Filipski 2019).

Figure 8: Real wages over time, by state/region



Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

However, rising rural wages squeeze farm incomes. To compensate, rural producers may farm less intensively, switch to labor-saving crops, or even abandon production on marginal plots. Rural producers may also replace missing laborers with (in-)migrants or machines.

Out-migration begets in-migration

A major compensatory mechanism for the outflow of laborers through migration is simply the inflow of other laborers through migration. As discussed above, migration flows occur along 'corridors' which link all areas of the country and likely reach even the most remote locations. As migrants from some areas leave for Yangon or Thailand, the labor shortage they leave behind may prompt other laborers to take their place, usually migrating from other rural areas. In Mon State, where nearly half of all households had migrant members away at the time of our survey, respondents reported that 20 percent of workers in paddy fields were migrants from Bago Region who came specifically for the rice harvest (Filipski et al. 2017).

What drives these secondary migration flows are, again, wage differentials. Thailand attracts Mon migrants across the border with daily wages for unskilled workers that are triple what they are in Mon State (roughly MMK 10,000-12,000 or USD 8-10 in Thailand, versus MMK 3,000-5,000 USD 2.5-4.0 in Mon State at the time of the survey). Mon State daily wages are in turn higher than those in Bago Region (MMK 2,500-3,000 or USD 1.6-2.5), thus prompting a secondary migration flow, notably temporary workers at harvest time. In our Ayeyarwady study area, up to a quarter of the long-term fishpond workforce originated from more remote village tracts of the Ayeyarwady region (Htoo and Zu 2016). Although rigorous proof of causal impacts is difficult to obtain, evidence shows that wage levels in rural Mon State are higher precisely because so many of the workers have left for Thailand (Filipski, Lee, Hein, and Nischan 2019), echoing studies from other countries (Mishra 2014).

Less positively, migration can also occur as an option of last resort, leaving migrants vulnerable to harsh working conditions and exploitation. Many of the workers employed in offshore marine fisheries in Mon originate from impoverished areas of Ayeyarwady and the Dry Zone. These workers often accept wages at the beginning of the fishing season to pay off debts incurred elsewhere or to cover other emergency expenses. However, they are bound to spend the entire fishing season working on offshore rafts under extremely harsh conditions (Belton et al. 2019).

If all workers are easily replaced through secondary migration flows, production volumes can be maintained. However, this process is not entirely without friction. Replacing workers is easier when crops are similar across regions. Unlike the concentration of migrant workers in paddy fields, only 3 percent of workers in rubber plantations were migrants, presumably because care for rubber trees

requires more skills and training (Filipski et al. 2017). In addition, attracting these in-migrant workers requires offering wages high enough to make their trip worthwhile. Wages are indeed rising, but there comes a point where further wage increases become economically infeasible for farmers, who may then look at labor-saving technology and mechanization.

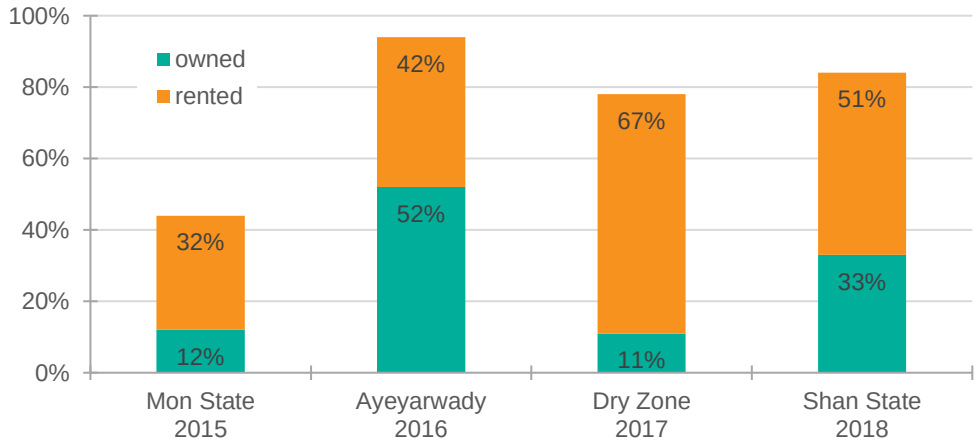
Migration and mechanization

The second way in which farmers compensate for labor scarcity is mechanization. This can be seen as a reaction to the combined effects of rising wages and falling cost of machinery, enabled by imports from China and Thailand (Win, Belton, and Zhang 2018).

A common narrative assumes that replacing human workers with machines leads to unemployment, such that rural-urban migration results from this surplus of rural workers displaced by technology. However, in the case of rural Myanmar, the causality is mainly working in reverse, i.e., farmers are seeking to mechanize because migration is creating labor scarcity, not the other way around. The best evidence for this is the trend in rural wages; if there were large surpluses of idle rural workers, wages would be falling.

The signs of a rapid spread of mechanization are visible throughout Myanmar and clearly apparent in our four surveys. Figure 9 shows that a large share of rice farmers use machinery (two-wheel tractors, four-wheel tractors, or combine harvesters). Nearly all farmers in Ayeyarwady and Shan State used machines, as well as a large majority in the Dry Zone. Mechanization in Mon State was somewhat lower, likely because growing rice tends to be a minor activity for households there. In addition, the Mon State survey was conducted in 2015. This early date may make a significant difference in our results given that mechanization has advanced at breakneck speeds in Myanmar over the past five years (Belton & Filipski 2019).

Figure 9: Use of machinery in rice production, by state/region, percent of households



Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

Migration and agricultural land

Our data does not show evidence of any land consolidation. A common narrative regarding rural-urban migration posits that it should go together with consolidation of agricultural landholdings; as some workers leave the countryside, others supposedly buy up the land they left behind and expand their holdings. Yet we do not find evidence of this pattern occurring.

In Mon State, the average agricultural landholding stayed at 2.5 acres between 2010 and 2015 (Filipski et al. 2017). In the Ayeyarwady region, while there had been wave of land confiscations and appropriations for the creation of fishponds in the 1980s and 1990s, our survey revealed very few occurrences of land loss or disposal in the more recent past.

This absence of land consolidation despite rapid structural transformation is not unique in Southeast Asia. Liu et al. (2020) find a remarkably stable distribution of landholding sizes in Vietnam over the period from 1992 to 2016 despite dramatic structural change in the economy. Similar patterns are also observed in other countries in the region (Rigg, Salamanca, and Thompson 2016).

Reasons for these trends are likely manifold and complex. One reason is that Myanmar landlessness tends to be high to begin with. In Mon State, 60 percent of households did not own agricultural land (Filipski et al. 2017). In the Dry Zone, 40 percent of rural households interviewed neither owned nor operated any land, and landlessness was increasing with each generation (Hein et al. 2018). Migration may partly be linked to this landlessness. Another reason why we do not see out-migration leading to land consolidation may be that migrants remain strongly attached to their home village. They typically leave family members behind and often plan to return. This is particularly the case with international migrants, whose goal is almost invariably to return after they have met their income goals, even though it may be after a decade or more away. As shown in Figure 7, returning migrants tend to return to farming. As observed in neighboring Thailand, the reluctance of many rural households to divest of even small and fragmented agricultural landholdings also reflects the precarity of many forms of off-farm employment, including migrant work, and the near absence of social safety nets (Rigg 2019).

In some cases, migrants rent out their land in their absence. In Mon State, many farmers reported cultivating land they rent from their absent neighbors. However, rental rates were low, and respondents suggested that these arrangements are more aimed at safekeeping rather than creating a significant income stream (Filipski et al. 2017).

Migration and agricultural investment

Because migration and remittances tend to be associated with rising incomes for rural households, there is scope for it to spur growth in agriculture. Farmers with access to liquidity, such as through receipt of remittances, should be better able to invest into productivity-enhancing inputs or capital such as seeds, fertilizer, labor, or machinery. While we see relatively limited evidence of that in our four surveys, migration is clearly shaping the long-term prospects for the farming sector.

Remittances are not primarily used towards agricultural investment. Rather, they are used towards day-to-day expenses and housing construction (Table 6). Nevertheless, the share of households reportedly using remittances for agricultural operating costs was 9 percent in Shan State and 17 percent in the Dry Zone. It is hard to infer a trend from these figures alone; on the one hand, the cumulative impact of remittances may be significantly contributing to agricultural growth over time. Even when migrant earnings are used to cover the costs of everyday living expenses rather than agricultural inputs, they can support agriculture indirectly by underpinning the ability of farm households to sustain themselves. On the other hand, the use of remittances for agricultural operating costs may simply be underwriting an underperforming agricultural sector, slowing decline rather than stimulating growth.

Remittances may lead to agricultural productivity growth through investment in technology. A small fraction of households reported that their primary use of remittances was for the purchase of agricultural assets such as machinery (2, 5, and 8 percent in Dry Zone, Shan State, and Mon State, respectively). If these technologies can lead to yield growth over time, rather than simply limiting the losses from rising labor costs, then remittances may have a lasting positive impact on agriculture.

Most migrants eventually return to farming (Figure 7), and many of them try to accumulate land in anticipation of that return. Return migrants are more likely to have funds to invest in modern agricultural operations, but this trend may not appear clearly in the data until after several years. In Mon State, 24 percent of households receiving remittances reported their primary use to be for

agricultural land purchase, often to set up rubber plantations. Returns on such investments appear with a significant delay, so it will be some time before we can confidently assess the contributions of migration on agricultural growth.

6. MIGRATION AND THE RURAL NON-FARM SECTOR

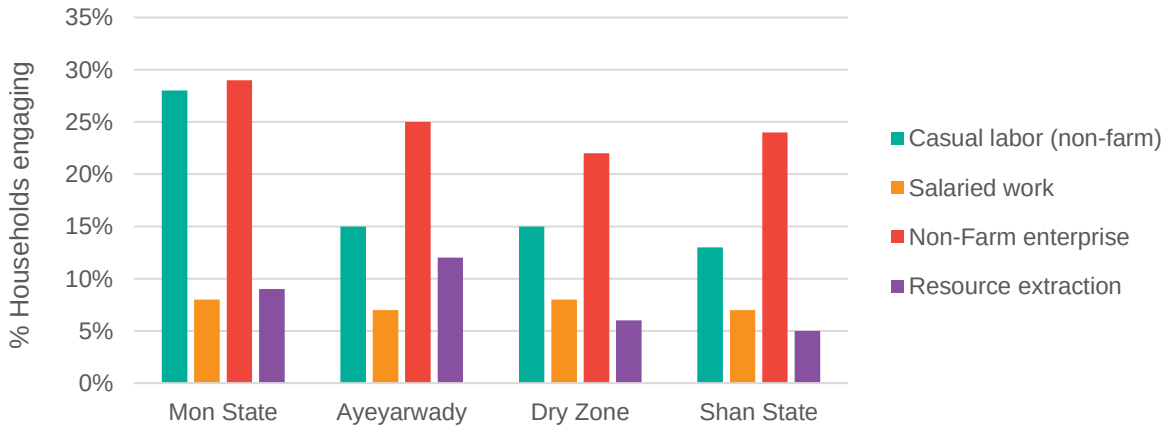
Migration contributes significantly to the diversification away from agriculture that is accelerating throughout Myanmar's rural sector. Our data provide supporting evidence for three mechanisms underpinning this relationship: (1) remittances are raising rural incomes and fueling local demand for a variety of goods and services; (2) migrants are funding homebuilding and the development of a construction sector; and (3) migrants are acquiring non-farm skills and starting businesses at home.

Rural non-farm work and business development

Myanmar's rural economy has already largely diversified away from subsistence farming. Few households in rural Myanmar rely exclusively on their farm. Across all surveys, over 75 percent of all rural households are engaged in some off-farm income-generating activity. The most common activity, however, remains casual labor on other people's farms, such that it reflects land ownership patterns and commercialized agriculture. To highlight sectoral diversification in the rural economy, this section looks at *non-farm* work, meaning off-farm work that is also non-agricultural.

The most common non-farm activity is business. Depending on the region, between 22 percent (Dry Zone) and 29 percent (Mon State) of rural households surveyed were deriving income from a non-farm enterprise (Figure 10). The most frequent type of business was invariably commerce by local retailers and other traders, but crafts, skilled trade, and food services were all quite common. This is likely a reflection of rising incomes in the rural sector and of household consumption diversifying beyond agricultural staples. Transportation businesses were also common, reflecting the increased availability of motor vehicles throughout the country, the improved transportation infrastructure, and the ever-growing flow of migrants between rural and urban sectors.

Figure 10: Percent of households engaging in non-farm employment, by state/region



Source: Filipski et al., (2017); Htoo & Zu, (2016); Thu, Htun, & Belton (2020), and author calculations

We kept a separate category for non-farm enterprise in the primary sector for resource extraction activities, e.g., forest logging, mining, and fishing. Their prevalence depends largely on available resources with engagement ranging from 5 percent of households in Shan State to 12 percent in Ayeyarwady (mostly fishing). Resource extraction activities tend to be highly seasonal and likely play an important role in providing buffer incomes in between crop harvests. In the Mon State uplands,

for instance, bamboo extraction peaks during the monsoon (July and August), when other income-generating activities are scarce (Filipski et al. 2017).

The number of households with members engaged in non-farm casual labor was between 13 percent and 15 percent in Ayeyarwady, Dry Zone, and Shan State. In the Dry Zone, most were temporary jobs at local non-farm enterprises, suggesting growth in local businesses and increased labor demand. Mon State, where the economy is performing relatively well, showed a much higher prevalence of non-farm casual work (29 percent).

Salaried work remained rare across all four areas (7 to 8 percent of households) and was primarily linked to government work (e.g., schools, administrations, etc.). Although the rural economy is diversifying into non-farm sectors, we are not yet seeing growth in formal employment.

A dynamic rural construction sector

Many of the non-farm casual jobs mentioned above were related to the construction sector, such as stevedores, carpenters, and other construction labor (AMZ and HH draft 2017). Myanmar's rural sector is the site of rapid home-building, which is partially fueled by remittances and is likely a major contributor to the demand for non-farm rural labor.

Nowhere is this phenomenon more evident than in Mon State, where non-farm casual labor is significantly more prevalent than in the other three zones (28 percent of households compared with 15 percent or less in other zones). Mon State is also where the most rural households have migrants (nearly 50 percent), where rural incomes depend most on remittances (about 25 percent), and where most households listed home construction as the primary use of remittances (33 percent). This all points to a construction "boom" in the Mon State rural sector, fueled largely by migrant wealth.

The rise in construction activities is also partly enabled by migrant skills; many of those who went to Thailand worked on construction sites where they learned homebuilding skills. While only a minority of migrants might start a construction business after returning home, anecdotal evidence suggests that the few that do find no shortage of demand for their services. While this phenomenon is less intense in other areas we surveyed, home construction appears to be thriving throughout the Myanmar countryside.

The non-farm sector and the future of farming

As Myanmar's rural sector diversifies into non-farm activities, the agricultural landscape and the place of farming in the rural economy are being reshaped. All these trends are partially fueled by migration and its impact on rural incomes, rural wages, and rural livelihoods in general. Three trends help outline these shifts: (1) increasing links to urban markets; (2) the rise of a private farm services economy; and (3) the declining share of agriculture in rural incomes.

While rural-urban migration raises rural incomes, it also transfers population and demand for food to the cities. This process creates incentives for farmers to shift the crop landscape and produce for an increasingly populous and affluent urban sector. Urban demand for fruits and vegetables provides an opportunity for farmers to switch to high-value crops. In Mon State, farmers growing crops other than rice and rubber made five times the profits per acre as do rice and rubber producers (Filipski et al. 2017). However, these potentially lucrative opportunities are available only in areas that are well connected and benefit from irrigation. Thus, coordinated investment efforts are required for high-value crops to reach their full potential.

The continued trend in marketization and mechanization of agriculture gives rise to a demand for agricultural services, which we already see developing. Increased use of machinery requires a supporting environment with machinery retailers, spare parts suppliers, and repair services (Belton et al. forthcoming). Machinery rental services have flourished throughout the rural sector, as

demonstrated by the high usage of rental machines in all four surveys (**Error! Reference source not found.**). Financing services for machinery purchases are now commonly offered by the growing rural banking sector. High-value vegetable or fruit crops require reliable supplies of fertilizers, seeds, and other purchased inputs, as well as regular maintenance of field infrastructure, such as trellises or drip irrigation. Cold storage is also starting to appear along crop value chains. These developments all point to the growth of a non-farm rural private sector that provides supporting services to farming activities.

These changes in the agricultural landscape and rural economy will continue to decrease the share of rural incomes coming from agriculture itself. An increasing number of non-farm rural households will derive livelihoods from non-farm activities, and household wealth will be ever less tied to the size of their landholdings. Incomes from migration are a significant contributor to this trend, and greatly accelerate the decoupling of rural wealth from land. In Mon State, 45 percent of the highest-earning quintile of households do not own any land (Filipski et al. 2017). As such, migration contributes to a steady deagrarianization of the rural sector along with growth in the rural economy.

7. MIGRATION AND COVID-19

The data analyzed in this paper was all collected prior to the onset of the COVID-19 pandemic. As was the case in most countries, Myanmar's economy experienced a dramatic shock in 2020 when the spread of the COVID-19 virus and measures to contain it caused a major slowdown in the world economy. In Myanmar, policy responses included travel bans, transport restrictions, business lockdowns, and curfews. An estimated five million lost their jobs and most households lost income (Diao et al. 2020). While the resulting impacts are far-reaching and complex, in this section we focus narrowly on those linked to migration.

COVID-19 severely curtailed migration flows. While very little data is available at this time, the evidence suggests the following inferences: (1) out-migration from the rural sector was essentially halted; (2) return migration was rapid and massive, both from cities and from abroad; and (3) remittance flows may have dried up, with severe consequences for income and consumption (Boughton et al. 2021, 2020; Diao et al. 2020). We expand below.

We can reasonably assume that new rural out-migration, both international and domestic, was halted during the pandemic. Thailand, Malaysia, and China all severely restricted legal border crossings. Domestically, Myanmar dramatically reduced passenger transit services and restricted the use of certain highways (Diao et al. 2020). Furthermore, opportunities to migrate likely became scarcer with rising urban unemployment following lockdowns and factory closures.

Many of those who had already migrated found themselves out of work and sometimes without accommodation as their employment sites shut down, prompting them to return home. An estimated one million migrants returned from abroad (Diao et al. 2020). In addition to the dangers of spreading the disease, for rural households this results in additional mouths to feed from the same or (more likely) lower income, compounding their economic challenges.

The loss of remittance incomes is likely to have left many rural households facing considerable hardships. Remittances represent between 5 and 25 percent of total incomes in the rural sector (Table 6). For households receiving remittances, these figures rise to between 38 and 54 percent (Boughton et al. 2020), meaning many rural households will have lost up to half of their income. The COVID-19 crisis provides a stark reminder that reliance on remittances leaves an economy vulnerable to shocks.

If the economic and policy conditions are not fundamentally altered in the wake of the COVID-19 crisis, we can reasonably expect all the migration trends we describe in this study to resume once

the threat of the pandemic subsides. Demand from rural migrant labor in Myanmar's cities and in neighboring countries is likely to rebound when a global economic recovery takes place. However, after nearly a year of COVID-19 disruptions, the hardships faced by rural households in Myanmar will undoubtedly have resulted in lasting harm, likely compounded by the importance of migration in the economy and COVID-19 severely curtailing flows of workers and remittances.

8. CONCLUSIONS

Myanmar's sustained migration flows and accompanying structural transformation are not unique in Southeast Asia. Regional precedents, such as Thailand and Vietnam, started similar processes several decades earlier (Tarp 2015). Yet, Myanmar presents several specificities, including certain advantages which come with being a late starter in the region. Myanmar can cheaply and easily send millions of migrants to higher-income neighboring countries where labor is needed and wages are significantly higher. It also benefits from spillover technologies, such as an ample supply of agricultural machinery from China and Thailand. This situation contributes to the speed of change we observe today.

Though migration appears to be contributing to income growth, agricultural development, and economic diversification in Myanmar's rural sector, many uncertainties and risks remain with regards to these trends. Rising wages in the rural sector benefit farm workers and spur technology adoption, but they may also threaten smallholders as farm margins grow ever thinner. Economic shocks may lead to waves of distress land sales. Synergies between the farm and non-farm sectors may fail to materialize without sustained investment and enough yield growth to close the productivity gap between Myanmar and regional competitors. Agricultural research and development may be a vital complement for Myanmar's rural sector to realize its potential.

Policy challenges lie ahead. Immediate urgency stems from the COVID-19 crisis, which highlighted the vulnerabilities associated with heavy economic dependence on migration. Cash transfer programs may have to be implemented as an emergency compensatory policy, along with input subsidies and farm credit to mitigate the shock and aid recovery (Boughton et al. 2020). Longer-term migration issues also need addressing. Migration remains risky, with migrants being vulnerable to crime and exploitation, particularly when undocumented. Domestic and foreign policy efforts are needed to ensure that migration is safe and legal, and migrants would benefit from legal protection in Myanmar and abroad. Education policies need to be cognizant of migration trends, which may stand in the way of long-term human capital development objectives as the country strives to build an increasingly educated workforce.

REFERENCES

Belton, B., Cho, A., Filipski, M., Goeb, J., Lambrecht, I., Mather, D., & Win, M. T. 2021. *Opportunities and constraints for production and income growth in rural Myanmar: Inter-regional variations in the composition of agriculture, livelihoods, and the rural economy* (No. 07). Washingon, D.C.

Belton, B., & Filipski, M. J. 2019. Rural transformation in central Myanmar : By how much , and for whom ? *Journal of Rural Studies*, 1–11. doi:10.1016/j.jrurstud.2019.02.012

Belton, B., Marschke, M., & Vandergeest, P. 2019. Fisheries development, labour and working conditions on Myanmar's marine resource frontier. *Journal of Rural Studies*, *69*(June 2018), 204–213. doi:10.1016/j.jrurstud.2019.05.007

Boughton, D., Goeb, J., Lambrecht, I., Headey, D., Takeshima, H., Mahrt, K., … Diao, X. 2021. Impacts of COVID-19 on agricultural production and food systems in late transforming Southeast Asia: The case of Myanmar. *Agricultural Systems*, *188*, 103026. doi:10.1016/j.agsy.2020.103026

Boughton, D., Goeb, J., Lambrecht, I., Mather, D., & Headey, D. 2020. *Strengthening Smallholder Agriculture is Essential to Defend Food and Nutrition Security and Rural Livelihoods in Myanmar against the COVID-19 Threat Elements for a Proactive Response*.

Chantavanich, S., & Vungsiriphisal, P. 2012. Myanmar Migrants to Thailand: Economic Analysis and Implications to Myanmar Development. In H. Lim & Y. Yamada (Eds.), *Economic Reforms in Myanmar: Pathways and Prospects*. pp. 212–280. Bangkok, Thailand: Bangkok Research Center, IDE-JETRO.

CSO, UNDP, & WB. 2020. *Myanmar Living Conditions Survey 2017: Socio-economic Report*. Nay Pyi Taw and Yangon, Myanmar.

De Brauw, A. 2019. Migration out of Rural Areas and Implications for Rural Livelihoods. *Annual Review of Resource Economics*, *11*, 461–481. doi:10.1146/annurev-resource-100518-093906

Diao, X., Aung, N., Lwin, W. Y., Zone, P. P., Nyunt, K. M., & Thurlow, J. 2020. *Assessing the Impacts of COVID-19 on Myanmar's Economy: A Social Accounting Matrix (SAM) Multiplier Approach*.

Filipski, M. J., Lee, H. L., Hein, A., & Nischan, U. 2019. Emigration and Rising Wages in Myanmar: Evidence from Mon State. *Journal of Development Studies*, *0*(0), 1–18. doi:10.1080/00220388.2019.1626834

Filipski, M. J., Van Asselt, J., Nischan, U., Belton, B., Htoo, K., Win, M. T., … Boughton, D. 2017. *Rural Livelihoods in Mon State : Evidence from a Representative Household Survey* (No. 01638). *IFPRI discussion papers*. Washington, D.C.

Griffiths, M., & Ito, M. 2016. Migration in Myanmar: Perspectives from current research.

Hein, A., Lambrecht, I., Lwin, K., & Belton, B. 2018. Agricultural Land in Myanmar's Dry Zone, 5.

Hein, A., Minoletti, P., Paing, A. T., Win, N. L., & Harkins, B. 2015. *Safe migration knowledge, attitudes and practices in Myanmar*.

Htoo, K., & Zu, A. M. 2016. *Rural-Urban Migration Around Yangon City, Myanmar*. Yangon, Myanmar.

Junge, V., Revilla Diez, J., & Schätzl, L. 2015. Determinants and Consequences of Internal Return Migration in Thailand and Vietnam. *World Development*, *71*, 94–106. doi:10.1016/j.worlddev.2013.11.007

Liu, Y., Barrett, C. B., Pham, T., & Violette, W. 2020. The intertemporal evolution of agriculture and labor over a rapid structural transformation: Lessons from Vietnam. *Food Policy*, *94*(May), 101913. doi:10.1016/j.foodpol.2020.101913

Mishra, P. 2014. *Emigration and Wages in Source Countries : A Survey of the Empirical Literature*. *IMF Staff Papers*. Washington DC.

Rigg, J. 2019. *More than rural: Textures of Thailand's agrarian transformation*. Honolulu, Hawai'i.: University of Hawai'i Press,.

Rigg, Jonathan, Salamanca, A., & Thompson, E. C. 2016. The puzzle of East and Southeast Asia's persistent smallholder. *Journal of Rural Studies*, *43*, 118–133. doi:10.1016/j.jrurstud.2015.11.003

Stark, O., & Bloom, D. E. 1985. The New Economics of Labor Migration. *The American Economic Review:Papers and Proceedings*, *75*(2), 173–178.

Tarp, F. 2015. Growth, Structural Transformation and Rural Change in Viet Nam: A Rising Dragon on the Move, (July).

Taylor, J. E. 1999. The New Economics of Labour Migration and the Role of Remittances in the Migration Process, 37 International migration 63–88. doi:doi:10.1111/1468-2435.00066

Thu, E. T. T., Htun, K. M., & Belton, B. 2020. *Migration in Southern Shan State: Characteristics and Outcomes*. Yangon, Myanmar.

Wei, S., Zhang, X., & Liu, Y. 2012. *Status Competition and Housing Prices* (No. 18000).

Win, M. T., Belton, B., & Zhang, X. 2018. Myanmar's Rural Revolution: Mechanization and Structural Transformation. In J. Chambers, G. McCarthy, N. Farrelly, & C. Win (Eds.), *Myanmar Transformed?* pp. 109–136. Singapore: Institute of Southeast Asian Studies. doi:10.1355/9789814818551-009

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