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Food Security Policy Project Research Highlights
Myanmar

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AGRICULTURAL CREDIT ACCESS AND UTILIZATION IN MYANMAR'S DRY ZONE

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INTRODUCTION

This research highlight presents findings on access to and use of agricultural credit by farm households in Myanmar's Central Dry Zone. Data was collected by the Rural Economy Agriculture Dry Zone Survey (READZ). READZ was implemented during March to May 2017 with 1578 rural households in the townships of Budalin, Myittha, Magway and Pwinbyu. Results presented here are based on responses from a subsample of 1066 households engaged in agriculture. We analyze access to, terms and utilization of agricultural loans from the Myanmar Agricultural Development Bank (MADB) and other sources over the 12 months preceding the survey. For our analysis, farm households were ranked by area of agricultural land owned, and divided into three equal groups. The smallest third of farms is referred to as agricultural landholding tercile 1 and the largest as tercile 3.

Sources of funding for agriculture

Funds from a variety of sources are used to invest in agriculture. Profit from previous crops and credit are the first and second most important sources of funds for farm households of all sizes. However, the relative importance of crop income and credit as sources of agricultural investment increases with farm size. Incomes earned from agricultural labor and non-farm employment are more important as a source of agricultural investment capital for households with small and medium farms (Table 1).

Table 1: Share of households reporting investments in crop agriculture, by landholding tercile and source of funds (%)

Source of investment	Tercile 1 (%)	Tercile 2 (%)	Tercile 3 (%)
Profit from previous crop	79	85	94
Credit	63	71	79
Agricultural labor income	42	28	10
Non-farm sources (*of which:*)	39	44	29
Non-farm business	*16*	*13*	*14*
Remittances	*10*	*20*	*10*
Non-farm work	*13*	*11*	*5*
Sale of assets (*of which:*)	19	20	19
Sale of livestock	*13*	*13*	*12*
Sale of other assets	*6*	*7*	*7*
Other	0	2	3

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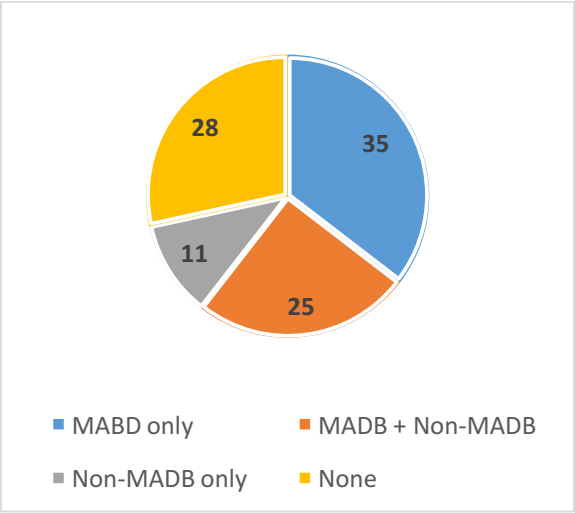
Incomes from agricultural labor, non-farm sources (comprised of non-farm business, remittances and non-farm work), and sale of assets (most importantly livestock), were the third, fourth and fifth most common sources of funds invested in agriculture. Households with the smallest landholdings (tercile 1) were four times more likely to make use of income from agricultural labor as a source of farm investment (42% of households) than those in tercile 3 (10%). This suggests that incomes from previous crops and access to credit are often insufficient to meet the investment needs of the smallest farms.

Sources of credit

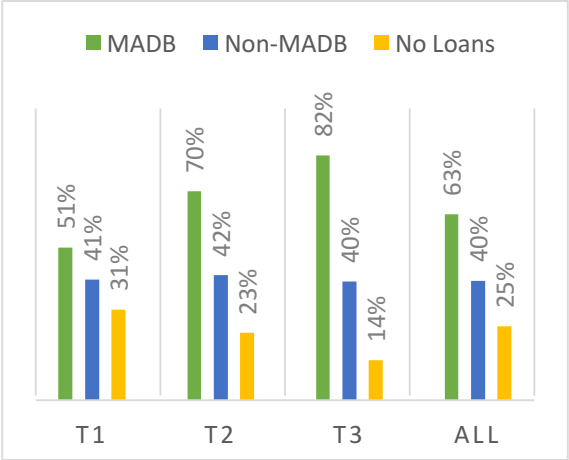
Seventy-two percent of crop farming households borrowed to fund investments in agriculture within the past 12 months. The Myanmar Agricultural Development Bank (MADB) is the most important source of agricultural loans, providing credit to 60% of agricultural households. Among all agricultural households, 35% took MADB loans only and another 25% took both MADB and non-MADB loans. Only 11% were reliant entirely on non-MADB loans. A further 27% of households reported taking no agricultural loans at all (Figure 1).

Figure 1: Share of crop farming households using credit to invest in agriculture, by type



The smallest farms are at a disadvantage in terms of their ability to access loans from MADB (Myanmar's most important, and cheapest, provider of agricultural credit), and are relatively more dependent than large farms on expensive informal loan providers. Rates of access to MADB loans increase with farm size. In contrast, access to non-MADB agricultural loans changes little with landholding tercile, while the share of households taking no loan falls with farm size (Figure 2).

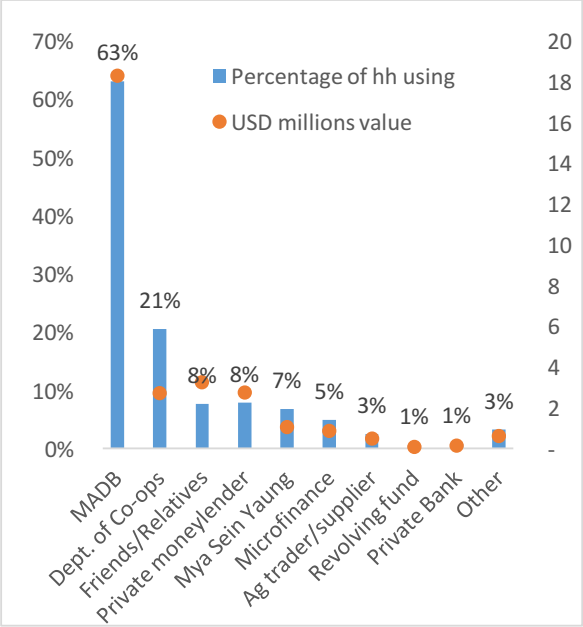
Figure 2: Share of farm households accessing MADB loans, non-MADB loans and no loans by landholding tercile



For example, MADB loans were accessed by only 51% of farms in tercile 1 (the smallest third), but 82% for farms in tercile 3, whereas an almost equal share of farms in all terciles (40% to 42%) had accessed non-MADB agricul-tural loans within the last 12 months. Among non-MADB loan providers, the most important are the Department of Cooperatives (providing credit to 21% of households), relatives and friends (8%), private money lenders (8%), and the green revolution fund (Mya Sein Yaung) (7%) (Figure 3).

The total value of agricultural loans received from each source by households in our sample within the past 12 months follows a similar pattern to the frequency of loan provision. MADB loans account for the largest share of loan value, with over $18 million disbursed in the sample area. Among non-MADB loans, relatives and friends, the Department of Cooperatives, and informal moneylenders each provided about $3 million. The value of microfinance invested in crop agriculture is similar to that of loans provided by the Mya Sein Yaung (green revolution) fund administered by the Department of Rural Development, at about $1million.

Figure 3: Share of farm households receiving agricultural credit from MADB and non-MADB sources, and total value



In total, around 78% of the value of all agricultural loans received by households in our sample were from formal sources (government, microfinance institutions and banks), with government alone providing nearly three quarters of all agricultural loans by value (73%) (Figure 3). This is remarkable when one considers that the traditional image of rural credit provision in Myanmar is of one of inadequate supply dominated by informal lenders charging high interest rates.

MADB LOANS

This section summarizes the characteristics of loans taken from MADB, by far the largest provider.

MADB loan duration, size and terms

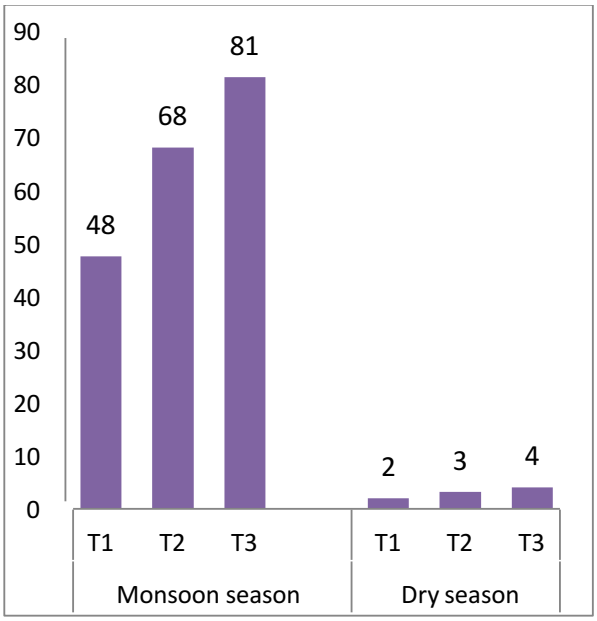
The average MADB loan duration was seven months for the monsoon season and six months for the dry season. Most monsoon loans were taken in July and repaid in March, while the majority of dry season loans were taken in October and repaid in May. There is thus a high degree of overlap between the two loan disbursement periods. The annual interest rate paid on MADB loans is 8%.

The average size of MADB loan taken by paddy farmers was MMK 490,000 (USD 365) whereas non-paddy farmers received a total average loan of MMK 180,000 (USD 135). Loans to paddy farmers and non-paddy farmers are disbursed at the rate of MMK 150,000 and MMK 20,000 per acre, respectively. However, the mean loan value obtained by paddy farmers was MMK 140,000 per acre, while that obtained by non-paddy farmers was MMK 38,000 per acre. The latter figure suggests that some households who owned paddy land were able to obtain paddy loans, but opted to grow non-paddy crops.

Seasonal variation in access to MADB loans

In the townships surveyed, MADB loans were utilized almost exclusively in monsoon season. Sixty-one percent of farm households reported having taken an MADB loan during the preceding monsoon season, as compared to just 3% in the preceding dry season. The pattern is repeated even among households producing paddy (the main crop prioritized by MADB): 74% of households who farmed monsoon paddy received an MADB loan in monsoon season, compared to just 5% of those farming dry season paddy. Rates of MADB loan access are lower among households farming non-paddy crops than those farming rice, but follow a similar seasonal trend, with 43% and 2% obtaining MADB loans in monsoon and dry seasons respectively. In monsoon season, access to MADB credit is closely correlated with size of landholding, but in dry season it is uniformly low (Figure 4).

Figure 4: Share of farm households taking MADB loan by seasons & landholding terciles

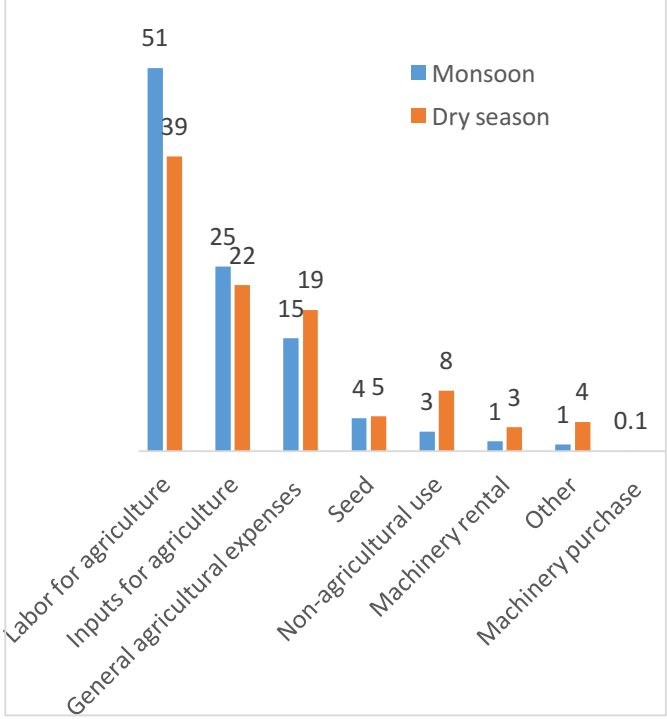


Reasons for taking MADB loans

Reported reasons for taking MADB loans were similar in both seasons, and there was little variation in reported loan uses by landholding tercile. The primary reason for taking an MADB loan was to pay for agricultural labor (reported by 51% of respondents in monsoon and 40% in dry season). Around one quarter of loans in both seasons were allocated to the purchase of agricultural inputs, while 'general agricultural expenses' accounted for 15% of monsoon and 18% of dry season loans (Figure 5).

Interestingly, while the majority of households took loans to pay for labor, the share reporting taking loans to pay for use of machinery is very low (less than 1%) (Figure 4). This figure highlights an important advantage to farmers (as reported during field visits) of substituting machinery for labor. Whereas workers must be paid in cash immediately (or, in some cases, before prior to performing the work), most machine operators are willing to defer payment until households using the service can obtain funds to repay.

Figure 5: Share of households taking MADB credit, by main purpose of loan

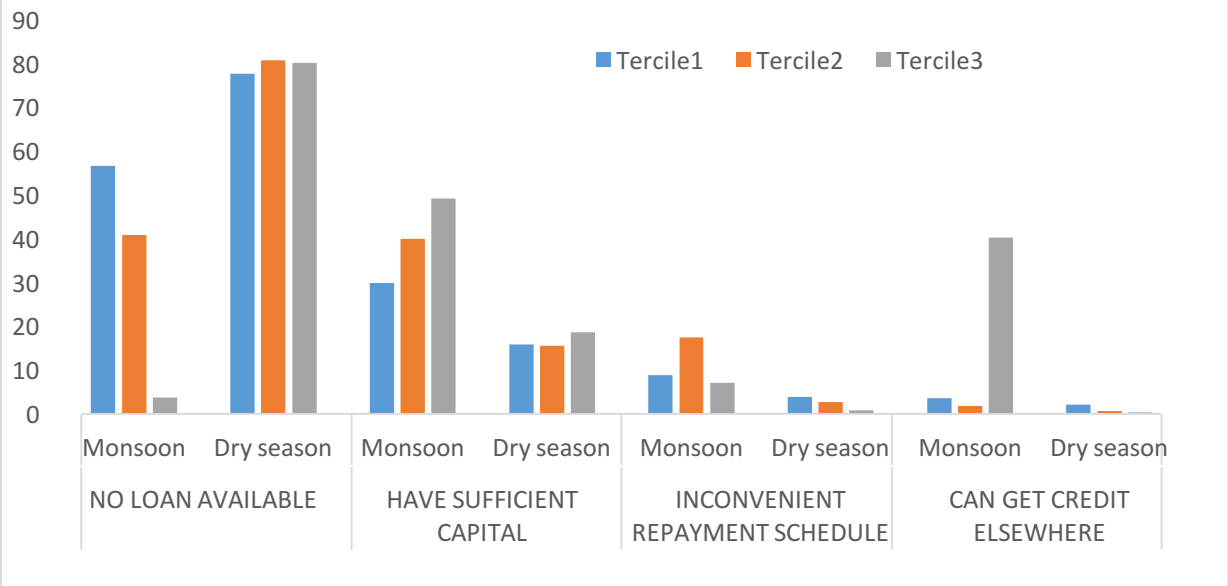


Reasons for not taking MADB loans

Reasons given by households for not taking MADB loans varied by the season for which the loan decision was made, and with landholding size. In both monsoon and dry season, most households who did not take loans from MADB reported one of two main reasons for their decision. The most important reason was that MADB loans were not available, as reported by 80% of households who did not take a loan in dry season and 56% of those who did not do so in monsoon season. The second most important reason was having sufficient capital (reported by 30% and 16% of households who did not avail MADB loans in monsoon and dry season, respectively). Contrary to the common belief that farm households often avoid taking MADB loans due to an inconvenient repayment schedule, very few households gave this response in either season.

Households with small landholdings were much more likely to report that loans were not available to them during monsoon season than those with large holdings (Figure 6). Fifty-seven percent of households in landholding tercile 1 did not take an MADB loan during the previous monsoon season reported that this was because loans were not available to them, as compared to just 4% of households in tercile 3. Conversely, farmers with more land were more likely to report having sufficient capital as a reason for not taking a monsoon season MADB loan: half of households in tercile 3 who did not take a loan gave this explanation, as compared to 30% of households in tercile 1.

Figure 6: Reasons for not accessing MADB loans in monsoon and dry season, by tercile



Non-availability was by far the most common reason for not taking an MADB loan during dry season, regardless landholding size or crop cultivated (Figure 6). Close to 80% of farm households in all terciles who did not access an MADB loan in dry season reported that they were 'not available'. Similar shares of paddy and non-paddy cultivating households (83% and 77%) gave this response. Paddy farming households appear less financially constrained than non-paddy households. Among households who did not take a loan, more paddy-farmers (49%) than non-paddy farmers (23%) reported this was because they had sufficient capital. Non-paddy households were also less likely than paddy-farming households be able to access loans during monsoon season (66% versus 38%).

The reasons for non-availability of dry season loans cannot be determined from the data available. One possible reason may be that Dry Zone farmers are unable to repay monsoon loans in time to access dry season credit. Alternatively, there may be little advantage to farmers in repaying outstanding monsoon loans immediately upon harvest, only to withdraw similar (or, depending on crop, smaller) sized loans shortly thereafter. A final possibility may be simply that MADB does not generally offer farmers the option of taking two loans per year in the townships surveyed.

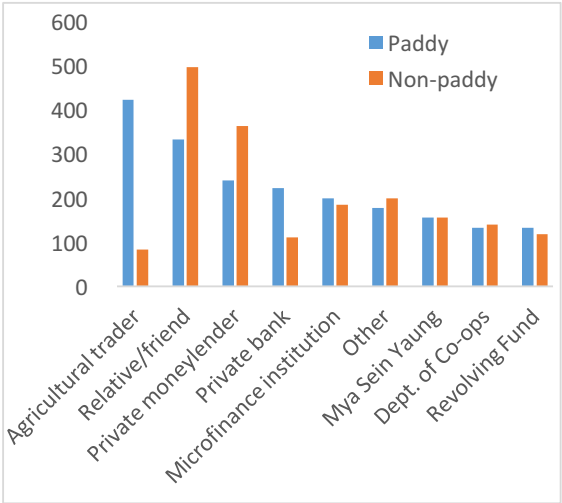
NON-MADB AGRICULTURAL LOANS

This section summarizes the characteristics of agricultural loans taken by sample households from sources other than MADB during the past 12 months.

Non-MADB loan duration, size and terms

The duration of non-MADB loans is similar to that of MADB loans, ranging from four to ten months on average, with a median of around six months. There is not much difference in the duration of loans taken by paddy and non-paddy farming households or by landholding terciles.

Figure 7: Average loan size of paddy and non-paddy



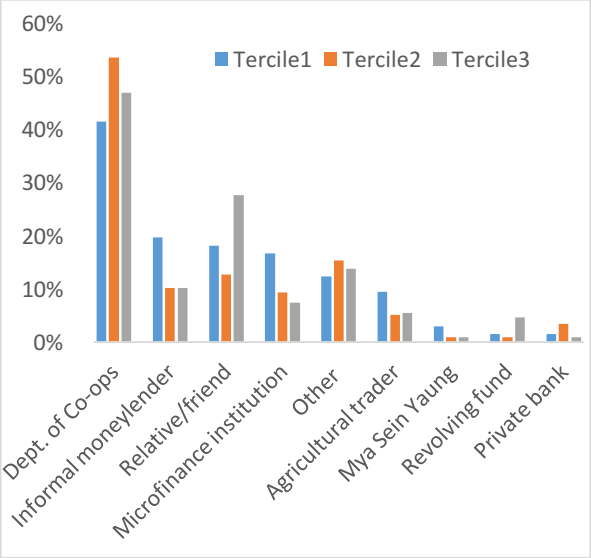
The overall average loan value of non-MADB is MMK 300,000 ($220). The value of loans received from different sources varies between paddy and non-paddy cultivating households. Paddy farmers received larger loans than non-paddy farmers from agricultural traders, reflecting the higher input demands of the former crop, whereas the average size of loans received by non-paddy farmers from relatives/friends and informal moneylenders exceeded those received by paddy farmers. The size of loans received from other providers, including the Department of Cooperatives, the Mya Sein Yaung fund, and microfinance institutions varied little between paddy and non-paddy farmers, indicating the advantages that borrowing from these institutions offers as compared to MADB (Figure 7).

Interest on most loans from non-MADB sources is calculated on a flat-rate monthly basis. As expected, the lowest average interest rates are offered by formal credit providers linked to government. Loans from the Department of Cooperatives and Mya Sein Yaung were reported to have a monthly interest rate of 1.5%. Traditional informal lenders (relatives and friends, and informal moneylenders) charged the highest rates, at 5% and 4% per month, respectively. Non-MADB credit was overwhelmingly received in cash (96% of non-MADB loans). Only 4% of loans (including all loans from agricultural input suppliers) were received in kind.

Access to non-MADB loans

Small farms and farms cultivating non-paddy crops compensate for their somewhat limited capacity to access MADB loans by utilizing credit from other sources. As noted above, loans from the Department of Cooperatives are the most frequently accessed form of non-MADB credit. Farms in landholding tercile 2 and 3 have slightly better access to these loans than those in tercile 1, but the difference is small. The smallest farms take more loans from informal moneylenders and input suppliers (sources of credit with high rates of interest) than farms in tercile 2 and 3. Farms in landholding tercile 1 are most likely to access loans from microfinance providers and the Green Revolution Fund, suggesting that these are appropriately targeted. These latter sources play a rather limited role in funding investments in crop farming however (Figure 8). Non-paddy farmers (62%) are more likely than paddy farmers (38%) to take non-MADB loans.

Figure 8. Share of households receiving non-MADB credit, by source and landholding tercile



Reasons for taking non-MADB agricultural loans

The three most common reasons cited for taking non-MADB agricultural loans are the same as those reported by households taking MADB loans, but are ranked differently. Non-MADB agricultural loans are most likely to be spent on general agricultural expenses (43% of loans received). Loans taken to cover labor costs are second most important (31%), followed by input purchases (27%). Purchases of seed accounted for a very small share of all non-MADB loans, underscoring how limited the use of improved varieties is. Reported loan use varied little among paddy and non-paddy farming households.

Use of non-MADB loans varies by farm size. Households with the largest landholdings (tercile 3) used non-MADB loans mainly to pay for labor (46%), followed by general agricultural expenses (38%), whereas 52% of households in tercile 1 used non-MADB loans to mainly to pay for general agricultural expenses (52%) and agricultural inputs (30%). This pattern reflects differences in the resource endowments of these sets of farms: smaller farms tend to be easier to manage using family labor, whereas large farms tend to require more hired labor. Households who did not take non-MADB credit were not asked about their reasons for not doing so.

CONCLUSION

The following points stand out:

1. Credit is the second most important source of finance for agricultural investment, after income from previous crops. The combined value of income invested in agriculture from agricultural labor and non-farm earnings is similar in magnitude to the value of credit. Farm and rural non-farm growth thus have an important role to play in supporting farm household agricultural investments.

2. Government is the major player in the rural credit sector. In the townships surveyed, MADB is by far the largest source of loans for agriculture, followed by the Department of Cooperatives, which comes in second in terms of numbers of loans, and third in terms of loan volumes. Together, government sources amount to 73% of the total value of credit disbursed, while traditional informal lenders account for about 10%. This is a remarkable achievement, particularly given that both institutions until recently had only a limited funds and rural credit markets were considered to be dominated by informal lenders charging high rates of interest.

3. Access to MADB loans is highly unequal. Among the third of farm households with the smallest landholdings (tercile 1), only 50% obtained an MADB loan in during the past year, as compared to more than 80% of households in landholding tercile 3. This makes smaller farms relatively more dependent on informal providers, thereby raising their borrowing costs. Measures need to be taken to ensure that MADB credit reaches the smallest strata of farmers.

4. The average value of MADB loans received by paddy farmers was almost three times higher than that received by non-paddy farmers, despite the former having considerably smaller average landholdings. Rates of access to MADB loans are also lower among farmers of non-paddy crops, placing them at a disadvantage. Increasing the value of loans issued to non-paddy farmers, and the range of crops eligible to receive seasonal credit from MADB, would help to address this shortfall.

5. In the townships surveyed, almost no MADB loans were available outside of monsoon season. Given the high potential yields that can be achieved from irrigated post-monsoon crop production, lack of access to and/or uptake of credit may result in foregone income opportunities for farmers. It is therefore important to evaluate carefully whether this is due to lack of credit availability or constraints to uptake linked to the timing of the loan cycle. The timing of monsoon loan repayment could make it difficult, or disadvantageous, for farmers to repay their monsoon loans by the time the second annual round of loans is disbursed, thus preventing them from taking a second loan.

6. Loans provided by microfinance institutions account for only a small share of credit invested in crop farming, in terms of both number and value of loans. Further research is required to evaluate whether microfinance products can be tailored to match the needs of this set of users more closely.

7. Agricultural labor and agricultural machinery rental costs make up a significant portion of production costs for most major crops. But loans used to pay agricultural laborers account for a large share of both MADB and non-MADB agricultural credit, whereas loans are rarely used to pay for agricultural machinery rentals. This is likely because workers are paid immediately, whereas machine operators are often willing to accept delayed payment, and represents an important but little recognized advantage to farmers of adopting agricultural machinery.

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