

# Myanmar Agricultural Performance Survey Round Seven

## Note on Sample Characteristics and Weighting

Joanna Van Asselt, Zin Wai Aung, Hnin Ei Win<sup>1</sup>

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<sup>1</sup> International Food Policy Research Institute (IFPRI), 1201 Eye St. NW, Washington, DC 20005, USA

## Introduction

The Myanmar Agricultural Performance Survey (MAPS) is a nationally and sub-nationally representative phone survey with the objective of collecting bi-annual data on agricultural indicators including crop production and sales, input use, crop marketing, farm and livestock assets, and farm services. MAPS is a sub-sample survey that includes farming households from MHWS. There are seven Rounds of MAPS. MAPS Rounds 1, 3, and 5 were conducted between January and March 2022 and 2024 and collect recall data on monsoon production. MAPS Round 2, 4, 6, and 7 were conducted between June and October 2022 and 2025 and collect recall data on dry season production (post/pre-monsoon season).

Phone surveys have several shortcomings including representativeness, enumerator trust, measurement error, and shortened survey length. To help ensure representativeness of our sample we set targets for MHWS data collection from rural, female, lower-educated, and farming households. While there are weaknesses of phone surveys, there are also advantages, particularly in Myanmar. Previous face-to-face socioeconomic surveys in Myanmar failed to reach many townships across the country either due to conflict or remoteness. Round 7 of MAPS includes 240 out of 324 townships (Appendix Table 1).<sup>1</sup>

In this note, we provide details on the data collection of the seventh-round of MAPS. First, we briefly describe the modules present in MAPS data. Second, we discuss the household sampling design of MHWS and each MAPS round and the differences between the datasets. Third, we discuss the calculation of weights for MAPS and provide descriptives of the weighted sample. Most comparisons throughout the paper are between MAPS Round 6 and MAPS Round 7 because both surveys were carried out following the post/pre-monsoon season.

## MAPS Modules

MAPS Round 7 consists of 13 modules (A-J) that are each included in the clean dataset and unique by household ID (hhid). Modules A, B, and J are introductory and closing modules that only include information on the call and confirmation of demographic information connected to MHWS. The remaining modules provide data on farmer demographics and agricultural production and marketing.

Module C consists of background and demographic information. This includes data on farmer demographics along with farm areas and crops grown. Module D provides data on rice production and sales for post/pre-monsoon 2024 and 2025, including rice variety, amounts produced and sold, and farmgate prices. Module E contains similar information to Module D but pertaining to pulses and oilseeds.

Module F consists of data on farm input use including purchased inputs, mechanization, labor, and the effect of natural shocks. Module G presents information on crop marketing and Module H provides data on farm and livestock assets. Module I contains data on farm services including agricultural extension, credit, mobility issues in the community, travel times to access services, contract farming, and crop residues management. Module R consists of data on expectations on paddy production for 2025 monsoon season. Module S collects information about paddy cultivation practices. Module T includes information on coping strategies in response to changing weather patterns or conflicts.

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<sup>1</sup> Six townships in the Wa Self Administer Division (Wa SAZ) were excluded from this survey due to active sanctions.

# Data collection and Sample Design of MAPS

MAPS employs CATI (computer-assisted telephone interviewing) to collect representative data across all states and regions of Myanmar. The seventh-round interviews took place between August 2025 and October 2025. The households were selected based on their participation in MHWS and their status as a farming household.

Table 1 shows the timelines for MAPS Rounds 1 to 7. Each Round asks interviewees about the most recent season as well as recall information from the season one year prior. MAPS Round 1 compares agricultural production in monsoon 2020 and monsoon 2021. MAPS Round 2 compares agricultural production between the dry (post/pre-monsoon) season of 2021 and 2022. MAPS Round 3 compares agricultural production in monsoon 2021 and monsoon 2022. MAPS Round 4 compares agricultural production in the post/pre-monsoon 2022 and the post/pre-monsoon 2023. MAPS Round 5 compares agricultural production in monsoon 2022 and monsoon 2023. MAPS Round 6 compares agricultural production in the post/pre-monsoon 2023 and the post/pre-monsoon 2024. MAPS Round 7 also compares agricultural production in the post/pre-monsoon 2024 and the post/pre-monsoon 2025. We did not conduct a survey for the Monsoon season 2024.

**Table 1: MAPS Timeline**

Round	Interviews Conducted	Study Period
1	February - March 2022	Monsoon 2020
		Monsoon 2021
2	August - September 2022	Dry (post/pre-monsoon) 2021
		Dry (post/pre-monsoon) 2022
3	January - March 2023	Monsoon 2021
		Monsoon 2022
4	June – July 2023	Dry (post/pre-monsoon) 2022
		Dry (post/pre-monsoon) 2023
5	January – March 2024	Monsoon 2022
		Monsoon 2023
6	July - September 2024	Dry (post/pre-monsoon) 2023
		Dry (post/pre-monsoon) 2024
7	August-October 2025	Dry (post/pre-monsoon) 2024
		Dry (post/pre-monsoon) 2025

MAPS and MHWS are conducted in collaboration with Myanmar Survey Research (MSR), a private survey research company based in Myanmar. To obtain a randomized nationally representative sample for MHWS, a master database was constructed in which all phone numbers were stratified at the township level, so that the amount of phone numbers in each township was proportional to the population size of each township (from the 2014 Census) (DoP, 2015). Then households were selected randomly to be called in each township. We chose to randomly sample at the township level to minimize oversampling of well-connected and/or wealthier townships. Finally, to ensure that women, famers, less educated, and more remote individuals were not under sampled, minimum quotas by state were set for women (half of

all respondents), rural location, farming livelihood, and education level. MAPS round 7 sampled from MHWS Round 9 followed by the previous rounds of MAPS until 4,845 respondents were reached.

An overview of MHWS and MAPS Round 7 farm target sample sizes by State/Region can be found in Table 2. Round 9 of MHWS achieved about 90 percent of the overall farm targets; however, it fell short in several states and regions, particularly in Rakhine, Kayah, Kachin, and Chin. In Rakhine, only 5 percent of the farm target was achieved. About 10 percent was achieved in Kayah and Kachin, while 46 percent was achieved in Chin.

**Table 2: MHWS Target Sample Sizes Overall and for Farmers by State/Region**

	MHWS Target Farm Sample Size	MHWS Round 9 Farm Sample	MAPS Round 7 Farm Sample	MAPS Round 7 Sample from MHWS Round 9	MAPS Round 7 Sample from Previous MAPS Rounds
<b>Ayeyarwady</b>	723	858	815	641	174
<b>Bago</b>	557	630	606	492	114
<b>Chin</b>	158	72	56	36	20
<b>Kachin</b>	175	20	17	12	5
<b>Kayah</b>	144	15	29	14	15
<b>Kayin</b>	187	106	110	82	28
<b>Magway</b>	506	626	580	477	103
<b>Mandalay</b>	629	611	579	466	113
<b>Mon</b>	194	164	177	139	38
<b>Nay Pyi Taw</b>	86	109	113	95	18
<b>Rakhine</b>	240	11	20	12	8
<b>Sagaing</b>	834	759	725	592	133
<b>Shan</b>	1,057	877	661	496	165
<b>Tanintharyi</b>	158	122	136	93	43
<b>Yangon</b>	238	252	221	182	39
<b>National</b>	5,886	5,232	4845	3829	1016

Source: Authors' calculations from MAPS data.

The MAPS Round 7 sample has 4,845 combined respondents from MHWS Round 9 and previous MAPS Rounds. This includes 1,632 respondents not previously interviewed for any round of MAPS but interviewed in MHWS. There was a response rate of 44 percent for the households called and 832 households refused to be interviewed. The percentage of the sample coming from each state has changed over the course of the seven MAPS Rounds (Table 3). In Round 7, the proportion of households decreased in Rakhine and Chin, while a small increase was observed in Shan compared to Round 6.

**Table 3: MAPS Round 2, Round 4, Round 6 and Round 7 Response Numbers**

State/ Region	Round 2 Farmers	Round 2 Percent of Sample (%)	Round 4 Farmers	Round 4 Percent of Sample (%)	Round 6 Farmers	Round 6 Percent of Sample (%)	Round 7 Farmers	Round 7 Percent of Sample (%)
<b>Ayeyarwady</b>	683	14 **	643	13	636	16 ***	815	17
<b>Bago</b>	487	10 **	509	10	481	12 **	606	13
<b>Chin</b>	95	2 **	117	2	132	2	56	1 ***
<b>Kachin</b>	159	3	157	3	148	0 ***	17	0
<b>Kayah</b>	60	1	105	2	39	1 **	29	1
<b>Kayin</b>	150	3	122	2 *	107	2	110	2
<b>Magway</b>	511	10	488	10	475	12 **	580	12
<b>Mandalay</b>	609	12	539	11	563	12	579	12
<b>Mon</b>	113	2 ***	143	3 *	141	4	177	4
<b>Nay Pyi Taw</b>	91	2	81	2	82	2 *	113	2
<b>Rakhine</b>	270	5 ***	242	5 **	68	3 ***	20	0 ***
<b>Sagaing</b>	794	16	744	15	750	14 **	725	15
<b>Shan</b>	721	14	824	16	684	12 ***	661	14 *
<b>Tanintharyi</b>	101	2	131	3	136	3	136	3
<b>Yangon</b>	177	4	155	3 ***	169	4	221	5
<b>National</b>	5021	100	5000	100	4611	100	4845	100

Source: Authors' calculations from MAPS data.

Table 4 presents the number of households retained in the MAPS panel. Because MAPS samples first from the most recent MHWS round and then from MAPS, panel retention is not the inherent focus. Thus, the retention rate from MAPS Round 6 was only 22 percent (Table 4). Rakhine and Kachin, areas with high levels of conflict, had the lowest retention rates at 1 percent and 2 percent, respectively, followed by Kayah at 3 percent. Nay Pyi Taw had the highest retention rate of 38 percent. A total of 440 households have remained in every round of MAPS and 832 households from Round 1 were present in Round 7 (Appendix Table 3). Magway has the highest number of retention households in the full MAPS panel with 86. In Round 7, no households from Kayah were retained in the panel. Because MAPS starts by sampling the most recent MHWS round instead of the most recent MAPS round, it sacrifices panel retention to ensure effective comparisons with the variables in MHWS.

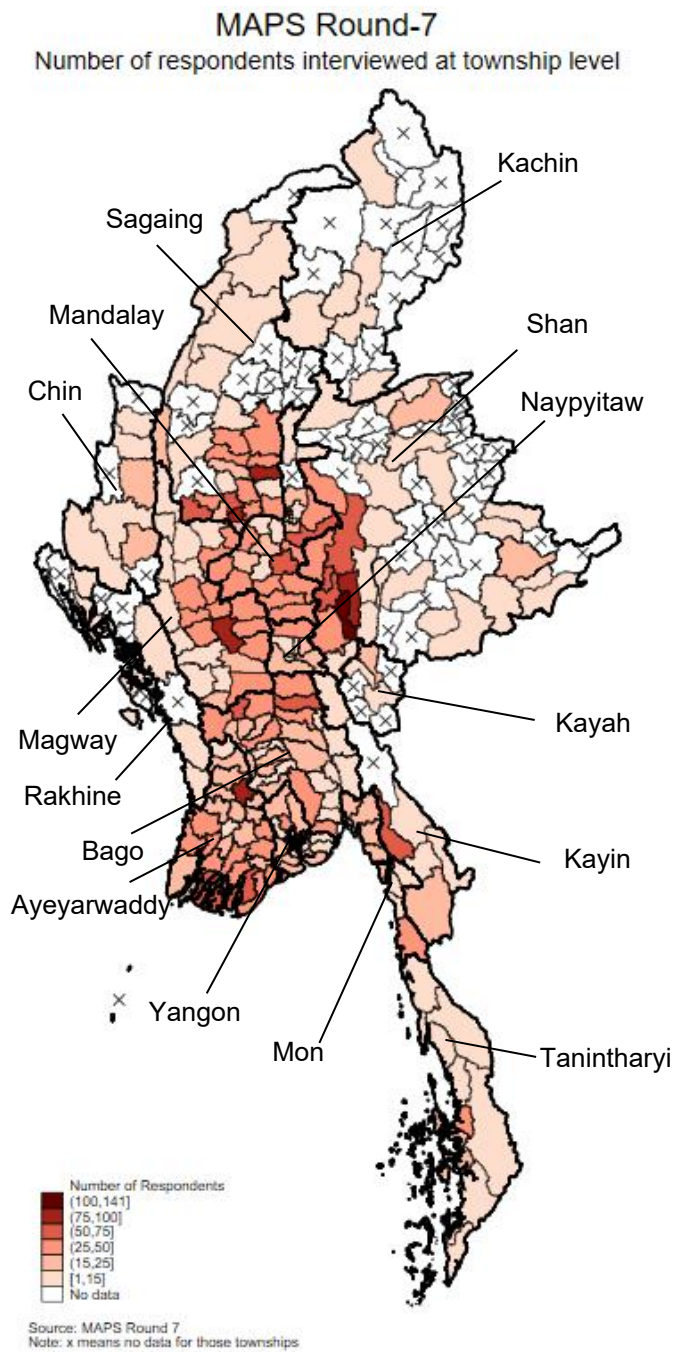
**Table 4: MAPS Panel Retention**

State/Region	Panel Respondents (Round 1 – Round 7)	Panel Respondents (Round 6, Round 7)	Percent Retained from Round 1 (%)	Percent Retained from Round 6 (%)
<b>Ayeyarwady</b>	74	478	4	28
<b>Bago</b>	59	354	4	26
<b>Chin</b>	0	20	0	6
<b>Kachin</b>	1	5	0	2
<b>Kayah</b>	1	9	0	4
<b>Kayin</b>	7	49	2	13
<b>Magway</b>	86	378	7	33
<b>Mandalay</b>	56	350	4	26
<b>Mon</b>	3	102	1	23
<b>Nay Pyi Taw</b>	19	83	9	38
<b>Rakhine</b>	0	7	0	1
<b>Sagaing</b>	55	364	3	18
<b>Shan</b>	46	359	2	18
<b>Tanintharyi</b>	12	82	3	22
<b>Yangon</b>	21	130	4	25
<b>National</b>	440	2770	3	22

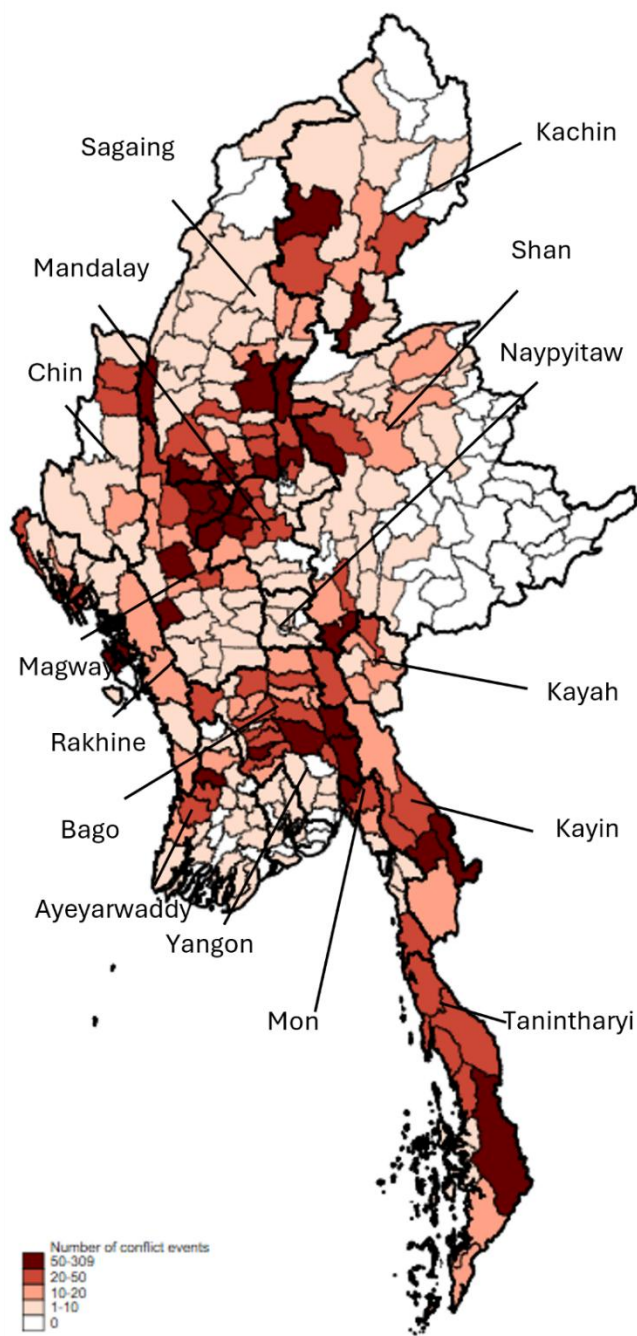
Source: Authors' calculations from MAPS data.

Figure 1 is a map of respondents in MAPS Round 7 by state/region. Eighty-four of the 324 Myanmar townships do not appear in the MAPS Round 7 (26percent of townships) (not including WA SAZ). Out of the 84 townships not enumerated, 21 were not enumerated in any MAPS Round (Appendix Table 4). Six of these are remote townships in Kachin that are home to very few people. Another three of these townships are in Shan and were not enumerated because of low population and conflict. The remaining townships not enumerated in any MAPS round are in Yangon. They are primarily urban areas with minimal farmland. The MAPS Round 7 sample did not retain thirty-one townships that were present in Round 6. This was due to electricity blackouts, cell-phone networks down, active conflict, and low enumeration in MHWS (Figure 2).

**Figure 1: Interviews Conducted in the Seventh Round of MAPS, by Township**



**Figure 2: All ACLED Events During the Seventh Round of MAPS, by Township**



## Sample Weights

To ensure that the sample is representative of farmers at the national and agro-ecological zone level we developed farm-level weights.<sup>2</sup> First, farm households were adjusted for oversampling in each state/region by ensuring that the percentage of farm households was equivalent to the percentage of farm households found in MLCS (CSO 2017). Second, to adjust for oversampling of more educated respondents, households were reweighted based on the share of adults with low education in each state/region in MLCS. Finally, to minimize selection bias of wealthier households, we used the maximum entropy approach and added constraints for agricultural land owned.

Table 5 shows the difference in the national dispersion of farming households between MLCS 2017, MHWS Round 9, MAPS Round 6, and MAPS Round 7 after weighting. There are no significant differences between the samples and little change is observed between MAPS Round 6 and Round 7 across many states and regions. There was a slight improvement in coverage in Rakhine and Chin in Round 7 compared to Round 6, while a modest decline was observed in Tanintharyi and Mon. Shan has the largest share of farming households at 25 percent while Kayah, Kachin, Nay Pyi Taw and Chin approach to zero percent by Round 7.

**Table 5: Dispersion of National Farming Households**

State/Region	MLCS 2017 Farming Households (%)	MHWS Round 9 Farming Households (%)	MAPS Round 6 Farming Households (%)	MAPS Round 7 Farming Households (%)
Ayeyarwady	14	15	17	17
Bago	11	12	10	9
Chin	1	1	0	0 ***
Kachin	3	1	0	0
Kayah	1	1	0	0
Kayin	3	3	1	1
Magway	9	10	9	9
Mandalay	11	12	10	10
Mon	3	3	6	4 ***
Nay Pyi Taw	2	2	0	0
Rakhine	6	2	1	5 ***
Sagaing	14	15	16	16
Shan	19	16	25	25
Tanintharyi	2	2	4	2 **
Yangon	3	4	1	1

Note: Asterisks show significance between Round 6 and Round 7 at p-values \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Source: Authors.

Table 6 highlights the differences between the MAPS Round 6 sample and the MAPS Round 7 sample after weighting. The percentage of rural households in the sample is consistent from Round 6 to Round 7, with the exception of Sagaing, where a significant increase in rural households is observed. In terms of gender, there is a notable increase in the share of female farm managers at the national level, and as

<sup>2</sup> In round 6, we changed our weighting strategy to be representative at the agro-ecological zone level instead of at the state/region level. This is because we had very limited sample in Kachin and Kayah. While most of our weighting strategy remained identical, we did not add the final extra step of ensuring that the percentage of farmers in each state region was identical to the portion in MLCS. Instead, we required these percentages to be identical by agro-ecological zone.

well as in Bago, Sagaing, and Magway. The sample age holds constant between Round 6 and Round 7 on average, with a significant decline observed in Chin and Mandalay.

**Table 6: MAPS Rural/Urban, Female, and Age Demographic Makeup**

State/Region	MAPS Round 6 Percent Rural (%)	MAPS Round 7 Percent Rural (%)	MAPS Round 6 Percent Female (%)	MAPS Round 7 Percent Female (%)	MAPS Round 6 Age	MAPS Round 7 Age
Ayeyarwady	97%	98%	18%	21%	48.5	48.5
Bago	94%	92%	17%	28% ***	49.9	49.7
Chin	78%	81%	23%	34%	46.9	41.2 **
Kachin	66%	70%	39%	19%	48.8	45.4
Kayah	69%	84%	19%	32%	49.1	47.1
Kayin	95%	90%	15%	25%	48.5	49.1
Magway	97%	95%	22%	29% **	48.5	48.1
Mandalay	94%	94%	22%	27%	49.3	47.8 **
Mon	90%	91%	26%	24%	51.3	52.4
Nay Pyi Taw	89%	92%	28%	28%	50.5	51.8
Rakhine	90%	68%	15%	33%	49.6	51.5
Sagaing	91%	95% **	15%	24% ***	47.9	46.8
Shan	90%	91%	27%	30%	46.0	45.2
Tanintharyi	94%	90%	22%	30%	51.4	49.5
Yangon	88%	90%	17%	23%	47.7	49.2
National	93%	93%	21%	26% ***	48.2	47.7

Source: Authors.

Note: Asterisks show significance at p-values \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Table 7 compares the unweighted and weighted sample for households with low-educated adults in MAPS Round 6 and MAPS Round 7. In the unweighted sample, the percentage of lower educated farmers is 39 percent in Round 6 and 37 percent in Round 7. This is an underestimate of low-education households due to the difficulties of sampling this group. After weighting, low education rises to 68 percent of households in both rounds 6 and 7. The percentage of low-educated households is the same between the two rounds after weighting.

**Table 7: Percent of Low-educated and Farming Households, Unweighted and Weighted, MAPS Round 6 & Round 7**

State/Region	Unweighted		Weighted	
	MAPS Round 6 Percent Lower-Educated (%)	MAPS Round 7 Percent Lower-Educated (%)	MAPS Round 6 Percent Lower-Educated (%)	MAPS Round 7 Percent Lower-Educated (%)
Ayeyarwady	38%	34%	67%	66%
Bago	36%	34%	67%	67%
Chin	8%	11%	19%	32%
Kachin	25%	24%	37%	51%
Kayah	33%	41%	50%	66%
Kayin	39%	35%	67%	72%
Magway	48%	45%	69%	68%
Mandalay	42%	42%	59%	62%
Mon	41%	35%	79%	72%

<b>Nay Pyi Taw</b>	33%	32%	57%	56%
<b>Rakhine</b>	23%	15%	65%	44%
<b>Sagaing</b>	41%	39%	63%	62%
<b>Shan</b>	47%	39% ***	77%	77%
<b>Tanintharyi</b>	28%	29%	66%	66%
<b>Yangon</b>	35%	31%	59%	58%
<b>National</b>	39%	37% **	68%	68%

Note: Asterisks show significance at p-values \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Note: Statistical comparison is between weighted values.

Source: Authors' estimates from MHWS and MAPS.

Table 8 shows the difference in the amount of agricultural land owned between MAPS Round 6 and MAPS Round 7 respondents, before and after weighting. In Rounds 6 and 7, MAPS oversamples households with more than 7.5 acres and under samples landless households. In Round 7, the weighting process brings down the number of large farms 6 percentage points and brings up the number of landless farmers by 9 percentage points. Before weighting, there are slight variations in the ownership distribution between the Rounds, but after weighting there are no statistical differences.

**Table 8:** Difference in Owned Agricultural Land between MAPS Round 6 and Round 7 Respondents.

Agricultural Acreage	MAPS Round 6 Un-weighted (%)	MAPS Round 7 Un-weighted (%)	MAPS Round 6 Weighted (%)	MAPS Round 7 Weighted (%)
0 Acres	5	6	14	14
0 to 2 Acres	22	23	22	22
2 to 4 Acres	18	18	19	19
4 to 7.5 Acres	23	22	20	20
More than 7.5 Acres	32	31	25	25

Source: Authors.

Note: Asterisks show significance at p-values \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Note: Statistical comparison is between weighted values.

Table 9 shows the average area cultivated by farmers and the percentage of farmers growing major crops during Round 6 and Round 7 after weighting. Farmers cultivated more land in Round 7 with an average of 4.5 acres in Round 6 and 4.9 acres in Round 7.

In Round 7, significantly less households grew maize, pigeon pea, other grains, and other pulses/oilseeds compared to Round 6 because of the sample area change in Round 7 while significantly more farmers grew sesame, fruits, and other trees. The percentage of farmers growing rice, groundnut, green gram, betel leaves, black gram, tubers/roots, nuts, vegetables, ornamental flowers, spices and other crops across the two post/pre-monsoon seasons remained unchanged.

**Table 9: Descriptive Crop Farmers, MAPS**

	Unit	MAPS Round 6	MAPS Round 7
Total number of farmers	Number	4,740	4,845
Area cultivated - acres	Mean	4.52	4.91 **
<b>Crops grown</b>			
Rice (%)	% of farmers	14%	14%
Maize (%)	% of farmers	2%	1% *
Groundnut (%)	% of farmers	5%	5%
Sesame (%)	% of farmers	6%	9% ***
Green gram (%)	% of farmers	6%	6%
Pigeon pea (%)	% of farmers	4%	3% **
Betel leaves (%)	% of farmers	4%	5%
Black gram (%)	% of farmers	9%	9%
Other Grains (%)	% of farmers	4%	3% ***
Other Pulse/ Oilseeds (%)	% of farmers	11%	10% *
Tubers/ Roots (%)	% of farmers	1%	1%
Fruits (%)	% of farmers	9%	10% *
Nuts (%)	% of farmers	0%	1%
Other Trees (%)	% of farmers	8%	10% **
Vegetables (%)	% of farmers	21%	20%
Ornamental Flowers (%)	% of farmers	2%	2%
Spices (%)	% of farmers	6%	5%
Other Crops (%)	% of farmers	0%	0%

Source: Authors' calculations based on MAPS.

Note: Asterisks show significance at p-values \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## Conclusion

MAPS is a socioeconomic phone survey designed to be representative of farmers at national and state/regional levels, though phone ownership gaps mean lower-income, less-educated, and more remote households may be underrepresented. To address this, MHWS sets targets for these groups, and MAPS applies a complementary weighting strategy to produce a representative farming sample. Data collection in Round 7 faced challenges — including power outages, service disruptions, violence, and non-responses — that limited reach in some previously surveyed townships, yet the survey remained representative at national agro-ecological levels. Round 7 retained 22 percent of Round 6 respondents, with gender as the only significantly different national-level demographic; modest differences emerged in the prevalence of certain crops such as sesame, maize, and pigeon pea, while the share of farmers growing rice, groundnut, vegetables, and numerous other crops held steady. By capturing high-frequency data on crop production and sales, input use, marketing, assets, and farm services, MAPS remains an essential tool for understanding the state of agriculture across Myanmar.

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## APPENDIX

**Appendix Table 1: Townships Not Enumerated in MAPS Round 7**

State	Township	Population Size	Number of Households	Comments
Chin	Kanpetlet	20,726	3,977	Low Population
Chin	Thantlang	49,949	9,782	Conflict area
Chin	Tonzang	31,327	4,941	Conflict area
Kachin	Bhamo	118,313	24,161	Conflict area
Kachin	Chipwi	19,170	3,306	Low Population
Kachin	Hpakant	169,498	36,632	Conflict area
Kachin	Injyangyang	1,420	285	Low Population
Kachin	Khaunglanhpu	11,635	1,711	Low Population
Kachin	Machanbaw	8,353	1,719	Low Population
Kachin	Momauk	58,651	12,370	Conflict area
Kachin	Nawngmun	7,025	1,212	Low Population
Kachin	Shwegu	84,607	16,621	Conflict area
Kachin	Sumprabum	2,405	479	Low Population
Kachin	Tanai	48,781	8,528	Conflict area
Kachin	Tsawlaw	6,499	1,073	Low Population
Kachin	Waingmaw	118,747	22,860	Conflict area
Kayah	Hpasawng	22,823	4,733	Low Population
Kayah	Hpruso	28,318	5,910	Low Population
Kayah	Mese	5,608	1,302	Low Population
Kayah	Shadaw	6,550	1,406	Low Population
Kayin	Hpapun	32,719	6,502	Conflict area
Mandalay	Singu	153,877	34,533	Conflict area
Rakhine	Buthidaung	52,056	11,264	Conflict area

Rakhine	Maungdaw	37,548	7,896	Conflict area
Rakhine	Minbya	165,769	36,628	Conflict area
Rakhine	Mrauk-U	186,551	41,525	Conflict area
Rakhine	Myebon	134,892	31,339	Conflict area
Rakhine	Ramree	95,348	22,418	Conflict area
Rakhine	Rathedaung	109,989	24,341	Conflict area
Rakhine	Toungup	153,721	35,192	Conflict area
Sagaing	Banmauk	102,383	18,868	Conflict area
Sagaing	Indaw	116,826	23,230	Conflict area
Sagaing	Kalewa	54,744	11,735	Conflict area
Sagaing	Kani	131,237	29,223	Conflict area
Sagaing	Katha	160,711	31,961	Conflict area
Sagaing	Kawlin	140,228	31,403	Conflict area
Sagaing	Mawlaik	49,782	10,345	Conflict area
Sagaing	Nanyun	49,820	7,840	Naga SAZ
Sagaing	Pinlebu	109,289	21,900	Conflict area
Sagaing	Tigyaing	123,429	26,389	Conflict area
Sagaing	Wuntho	69,442	14,205	Conflict area
Shan (East)	Mongla	27,691	5,208	Conflict area
Shan (East)	Mongping	65,886	13,299	Conflict area
Shan (East)	Mongyawng	75,413	17,196	Conflict area
Shan (North)	Hopang	59,438	11,216	Wa SAZ
Shan (North)	Hseni	54,190	11,779	Conflict area
Shan (North)	Konkyan	59,565	9,665	Kokang SAZ
Shan (North)	Kunlong	55,355	10,392	Conflict area
Shan (North)	Kyaukme	162,297	38,256	Conflict area
Shan (North)	Laukkaing	83,860	15,181	Kokang SAZ
Shan (North)	Manton	37,254	7,683	Pa Laung SAZ
Shan (North)	Matman	19,050	3,318	Wa SAZ
Shan (North)	Mongmao	69,364	10,445	Wa SAZ
Shan (North)	Mongmit	58,848	13,652	Conflict area
Shan (North)	Mongyai	56,768	13,328	Conflict area
Shan (North)	Namhsan	66,426	13,685	Pa Laung SAZ
Shan (North)	Namtu	48,460	11,641	Conflict area
Shan (North)	Narphan	114,724	16,474	Wa SAZ
Shan (North)	Pangsang	88,732	16,457	Wa SAZ
Shan (North)	Pangwaun	96,940	13,969	Wa SAZ
Shan (South)	Kunhing	50,063	11,137	Conflict area

Shan (South)	Kyethi	70,623	14,712	Conflict area
Shan (South)	Laihka	47,336	8,790	Conflict area
Shan (South)	Langkho	38,344	9,548	Conflict area
Shan (South)	Mawkmai	32,281	7,194	Conflict area
Shan (South)	Monghsu	68,589	15,867	Conflict area
Shan (South)	Mongnai	36,747	8,485	Conflict area
Yangon	Ahlon	48,612	10,943	Urban area
Yangon	Botahtaung	36,661	8,397	Urban area
Yangon	Cocokyun	1,172	351	Low population
Yangon	Dagon	20,417	4,608	Urban area
Yangon	Dagon Myothit (East)	155,258	33,913	Urban area
Yangon	Dagon Myothit (Seikkan)	159,313	37,905	Urban area
Yangon	Dawbon	72,683	14,409	Urban area
Yangon	Insein	278,986	61,676	Urban area
Yangon	Kamaryut	72,697	16,299	Urban area
Yangon	Kyauktada	25,754	6,120	Urban area
Yangon	Kyeemyindaing	106,702	23,062	Urban area
Yangon	Lanmadaw	36,302	8,599	Urban area
Yangon	Latha	18,161	4,473	Urban area
Yangon	Mingalartaungnyunt	126,134	25,918	Urban area
Yangon	Pazundaung	45,347	10,306	Urban area
Yangon	Sanchaung	87,228	20,635	Urban area
Yangon	Seikgyikanaungto	33,251	7,729	Urban area
Yangon	Shwepyithar	328,740	73,775	Urban area
Yangon	South Okkalapa	153,687	32,725	Urban area
Yangon	Tamwe	156,340	35,360	Urban area
Yangon	Thaketa	212,290	45,456	Urban area
Yangon	Thingangyun	201,316	43,320	Urban area
Yangon	Yankin	66,792	14,637	Urban area
<b>Total not enumerated (nationwide) c</b>		<b>7,138,853</b>	<b>1,510,938</b>	
<b>Total (nationwide) c</b>		<b>51,144,607</b>	<b>11,162,510</b>	
<b>Share of total not enumerated c</b>		<b>14.0%</b>	<b>13.5%</b>	

**Appendix Table 2: Number of HH Interviewed for MAPS From Each MHWS Round**

		MAPS Round 1	MAPS Round 2	MAPS Round 3	MAPS Round 4	MAPS Round 5	MAPS Round 6	MAPS Round 7
MHWS Round	MHWS Round 1	3,891	365	115		63		
	MHWS Round 2		310	103		63		
	MHWS Round 3		4,346	256		37		
	MHWS Round 4			4,418	306	169	71	36
	MHWS Round 5				4,695	218	58	38
	MHWS Round 6					4,061	445	147
	MHWS Round 7						4,166	153
	MHWS Round 8							640
	MHWS Round 9							3,829
	<b>Total</b>	<b>3,891</b>	<b>5,021</b>	<b>4,892</b>	<b>5,001</b>	<b>4,611</b>	<b>4,740</b>	<b>4,843</b>

**Appendix Table 3: Number of Households Present Across MAPS Rounds**

		MAPS Round 1	MAPS Round 2	MAPS Round 3	MAPS Round 4	MAPS Round 5	MAPS Round 6	MAPS Round 7
Prior Maps Round	MAPS Round 1		2,791	1,951	1,547	1,368	1,081	832
	MAPS Round 2			3,294	2,595	2,180	1,755	1,338
	MAPS Round 3				3,282	2,573	2,143	1,619
	MAPS Round 4					2,995	2,555	1,911
	MAPS Round 5						2,746	2,028
	MAPS Round 6							2,770
	MAPS Round 7							

**Appendix Table 4: Townships Not Enumerated in Any MAPS Round**

State	Township
Kachin	Injangyang
Kachin	Khaunglanhpu
Kachin	Machanbaw
Kachin	Nawngmun
Kachin	Sumprabum
Kachin	Tsawlaw
Sagaing	Wuntho
Shan (East)	Mongping
Shan (East)	Mongyawng
Shan (North)	Konkyan

<b>Shan (North)</b>	Mongyai
<b>Shan (South)</b>	Kyethi
<b>Shan (South)</b>	Laihka
<b>Shan (South)</b>	Mawkmai
<b>Shan (South)</b>	Monghsu
<b>Yangon</b>	Ahlonge
<b>Yangon</b>	Cocokyun
<b>Yangon</b>	Kyauktada
<b>Yangon</b>	Kyeemyindaing
<b>Yangon</b>	Lanmadaw
<b>Yangon</b>	Yankin

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## ABOUT THE AUTHORS

Joanna van Asselt ([J.VanAsselt@cgiar.org](mailto:J.VanAsselt@cgiar.org)) is a Research Fellow in the Development Strategies and Governance (DSG) Unit of the International Food Policy Research Institute (IFPRI).

Zin Wai Aung ([Z.W.Aung@cgiar.org](mailto:Z.W.Aung@cgiar.org)) is a Research Analyst in the Development Strategies and Governance (DSG) Unit of the International Food Policy Research Institute (IFPRI).

Hnin Ei Win ([H.Ei-Win@cgiar.org](mailto:H.Ei-Win@cgiar.org)) is a Research Analyst in the Development Strategies and Governance (DSG) Unit of the International Food Policy Research Institute (IFPRI).

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## ACKNOWLEDGMENTS

This work was undertaken as part of the Myanmar Agrifood System and Food Security Monitoring project led by the International Food Policy Research Institute (IFPRI). Funding support for this study was provided by the Livelihoods and Food Security Fund (LIFT) and LAMP. This publication has not gone through IFPRI's standard peer-review procedure. The opinions expressed here belong to the authors, and do not necessarily reflect those of IFPRI, LIFT, LAMP, or CGIAR.

### INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

1201 Eye St, NW | Washington, DC 20005 USA

T. +1-202-862-5600 | F. +1-202-862-5606

[ifpri@cgiar.org](mailto:ifpri@cgiar.org)

[www.ifpri.org](http://www.ifpri.org) | [www.ifpri.info](http://www.ifpri.info)

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