



Impact of COVID19 on Agriculture in SLM Project Townships : Harvest and Market Survey

About the assessment

The “Sustainable cropland and forest management in priority agro-ecosystems of Myanmar” project (SLM project) of the Food and Agriculture Organization of United Nations (FAO) conducted a follow up telephone survey in February 2021 to assess the drivers affecting productivity and marketability of monsoon crops planted last year in 2020 due to COVID-19 pandemic. The survey covered 160 farmers from two SLM project’s townships in two agro-ecological zones. Prior to this survey, in September 2020, a rapid assessment was also conducted by the SLM project to identify the drivers affecting monsoon crops plantation area and access to required inputs through interviewing 273 randomly selected rural smallholder farmers amid COVID19 pandemic. Full report of the first survey on factors affecting plantation area of monsoon crops conducted in September 2020 can be accessed [here](#).

Highlights

- ❖ Rural farmers are bearing the triple burdens of Climate Change, COVID19 Pandemic and Political Crisis.
- ❖ Political stability, provision of additional agriculture loan and suspension of interest repayments, promoting both short-term and long-term agricultural investments, creating platforms to improve access to both domestic and export markets and upscaling of Climate Smart Agriculture (CSA) practices in rural area are urgently needed to build resilience of vulnerable farmers.

Summary

The report provides an overview of the drivers affecting monsoon crops productions and market dynamics in NyaungU (Central Dry Zone) and Labutta (Delta Zone) townships since majority of farmers rely heavily on monsoon planting season and productions as a major source of income. This follow up survey was conducted during February 2021 when farmers had completed harvesting and selling of their harvests. The data collection was not successful in Mindat and Kyaukpadang due to recent political developments after February 1, 2021.

The first survey was conducted from 14 to 23 September 2020 in Mindat (Hilly Region), Nyaung U and Kyaukpadaung (Central Dry Zone), and Labutta (Delta Region) townships to measure the changes in monsoon crops planted area as compared to the previous years and the key drivers for those changes.

Objectives of the Survey

The SLM project of FAO, funded by Global Environment Facility, conducted the assessment with an initial aims to support COVID19 Economic Relief Plan's (CERP) section 2.1.7 focus areas and to assess the impact of two main drivers such as climate change and COVID19 on rural farmers in project townships.

Early identification of drivers affecting the productivity and marketability of monsoon crops will enable SLM-GEF and counterparts to take early response actions and hence, contribute to improve food and nutrition security and build resilience of local farmers.

Study Area and Population

The project has been promoting Climate Smart Agriculture (CSA) practices through Farmer Field School (FFS) approach since 2017. The project is piloting these FFS schools in the five townships from three priority agro-ecological zones in Myanmar. All trained FFS farmers who have a personal or phone contact with township Department of Agriculture (DoA) or FAO's Field Technical Officers and those who had participated in September's survey from Nyaung-U and Labutta townships were included in this second survey.

Sampling Method

The same farmers who were chosen randomly in the first-time survey were invited and interviewed again in this survey.

Sample Size

There are **2564** FFS farmers trained in 89 villages (through 96 FFS school established) in five project townships. Sample size was determined with 95% confidence level, 5% margin of error and 5% attrition rate and hence, a total of **350** participants needed to be recruited. However, the villages in Kanpetlet were excluded due to little/no telephone connectivity. Additionally, interviews could not be conducted in Mindat and Kyaukpadaung townships because of

current political instability. Therefore, only 160 farmers (80 farmers per township) from Nyaung-U and Labutta participated in this follow up survey as summarized in a table below.

Sr.	Township	Total # of Village	Required Sample size	Final Sample Size
1.	Mindat	15	60	0
3.	Nyaung-U	18	70	80
4.	Kyaukpadaung	21	80	0
5.	Labutta	20	80	80
Total		74	290	160

1. Villages in Kanpetlet township were excluded due to no/poor telephone connectivity.
2. Interviews cannot be conducted in Mindat and Kyaukpadaung townships due to current political crisis.

Data Collection and Analysis Procedure









Context specific, simple, and short questionnaire in both English and Burmese Languages was developed by using KoBo Toolbox. Pre-testing of the questionnaire was conducted with SLM-GEF team in Nay Pyi Taw. All FAO Field Officers and recruited surveyors, who have strong agricultural and contextual knowledge, were thoroughly explained, and virtually trained about this survey through Microsoft Teams before data collection began. Data collectors interviewed the selected respondents by phone conversation and filled the mobile data collection form by using tablets provided by SLM project.

Ethical Considerations

An **“Interview Guide”** was developed in Burmese language to help the interviewers to conduct interview properly. The objectives of this follow up survey were thoroughly explained to the farmers and a verbal consent was taken prior to interview. Farmers were allowed to independently decide whether to participate or not. And they were also allowed to ask questions before, during and after the survey and skip any question if they do not want to answer. Participants were not provided with any incentive in-kind or in-cash for participating in this survey.

Completed surveys were automatically saved in a central server, and the stored data relating to household identification number and participant’s village name or any information that could identify the participant were only accessible to the NPT survey team and are not mentioned in any report disseminated to the public.

Key Findings of the Survey

-  Approximately, **2** out of **10** survey participants were female
-  In Nyaung-U, farmers grew **Peanut and Paddy** as their main crops.
-  In Labutta, farmers grew **Paddy and Green gram** as their main crops.
-  Majority **78%** of farmers replied the acre grew was **Not Changed** compare to last year.
-  Approximately **80%** of respondents sold their harvests by the time survey was conducted
-  Majority **90%** of respondents sold to brokers outside of their villages and to town markets.
-  Majority **89%** of farmers perceived the threat of COVID19 **as dangerous and extremely dangerous**
-  **Less than 50%** of people wore masks and practice physical distancing while in public.

I. Household demographic characteristics

- A total **80** rural farmers from **18** villages in Nyaung-U (Mandalay Region) and another **80** from **20** villages in Labutta townships (Ayeyarwady Region) were included in this survey. Approximately, **2 out of 10** survey participants were female. The average household size is **5.1 members**. The average **population size** is **1,013** per village in study townships.

II. Overview of Productivity

- Common type of crops grew were paddy, peanut, green gram, sesame and pigeon pea. In Labutta, **100%** of farmers grew paddy (Paw San Yin and Sin Thukha varieties) and **18%** of farmers grew green gram. However, cropping patterns were more diverse in Nyaung-U where **58% of farmers grew** paddy (Sin Thuka, Ma Naw Thukha and Ayeyarmin varieties), **75%** - peanut, **15%** - sesame, **10%** - green gram, **9%** - pigeon pea and **3%** banana.
- 89%** of paddy farmers in Nyaung-U grown less than **5 acres**. However, majority of farmers (94%) in Labutta grew more than 5 acres of paddy. The data showed that **6%** grew less than 5 acres, **35%** grew 6 to 10 acres, and **36%** grew 11 to 20 acres, and **23%** grew more than 20 acres.
- Majority of paddy farmers - **70%** in Nyaung-U and **99%** in Labutta - replied the total planted area has **not changed** when compare to last year.
- Farmers in Nyaung-U replied that **70%** of planted area for peanut has not changed. Similarly, majority of planted area has not changed for the rest of crops during the study period.

- The productivity dynamics such as planted acres, last year planted acres, yield compare to last year and yield of other farmers in same village of both Nyaung-U and Labutta townships were tabulated in **Table 1 and Table 2.**

Type of Crops	Number of Farmer Grew	Planted Acres				Acres compared to last year				Yield compared to last year			Yield other Farmers in Same village			
		<=5	6 to 10	11 to 20	> 20	Increased	Didn't grow last year	No Change	Decreased	Increased	No Change	Decreased	Increased	No Change	Don't know	Decreased
Paddy	46	89% (41/46)	4% (2/46)	0	7% (3/46)	7	1	32	6	24	3	19	25	nil	1	20
Green gram	8	100% (8/8)	nil	nil	nil	1	nil	5	2	4	1	3	3	2	nil	3
Peanut	60	58% (34/60)	31% (18/60)	14% (8/60)	nil	5	nil	42	13	18	10	32	9	10	5	36
Sesame	12	nil	nil	92% (11/12)	8% (1/12)	2	1	4	5	1	3	8	nil	2	1	9
Pigeon Pea	7	100% (7/7)	nil	nil	nil	nil	nil	7	nil	nil	6	1	nil	4	3	nil

Type of Crops	Number of Farmer Grew	Planted Acres				Acres compared to last year				Yield compared to last year			Yield other Farmers in Same village			
		<=5	6 to 10	11 to 20	> 20	Increased	Didn't grow last year	No Change	Decreased	Increased	No Change	Decreased	Increased	No Change	Don't know	Decreased
Paddy	80	6% (5/80)	35% (28/80)	36% (29/80)	23% (18/80)	nil	nil	80	nil	6	42	32	5	32	12	32
Green gram	14	35% (5/14)	35% (5/14)	29% (4/14)	-	1	nil	9	4	4	4	6	3	5	5	1

III. Overview of Marketability

- **Overall, 78%** of respondents in Nyaung-U and **87%** of respondents in Labutta reported that they had sold by the time survey was conducted. Regarding paddy farmers, **89%** in Nyaung-U and **100%** in Labutta had sold their harvests. Similarly, **61%** peanut farmers in Nyaung-U had sold their products. Majority of farmers (80% in Nyaung-U and 78% in Labutta) reported that they didn't face any difficulties when selling their harvests.
- Majority of farmers in both Nyaung-U and Labutta **sold** their harvest mainly at “outside of their village” and “town markets”.
- **78%** in Nyaung-U and **65%** in Labutta responded that the price of paddy had increased when compare to last year. Meanwhile, the price of peanut varied depending on quality of product and existing market price when selling the harvest in Nyaung-U. The data showed that while **50%** of peanut farmers claimed that the price has decreased, **32%** responded that the price has increased when they sold.
- Farmers usually keep approximately **10%** of their crops as seeds for next year crop cycle and as home consumption.
- The market dynamics such as number of farmers grew, status of harvest sold, the total sold amount, the selling places, price comparison to last year and status of facing difficulty when selling harvest were shown in **Table 3 and Table 4**.

Type of Crops	Number of Farmer	Harvest Sold		If yes, Total Amount Sold			Where, did you sell?					Price compare to last year				Difficulty in Selling		
		No	Yes	<=50%	60 to 80%	>90%	Traders in the village	Traders outside village	Town market	Outside of your village	Export	Increased	Not Changed	Decreased	Missing	Yes	No	Don't know
Paddy	46	5	41	27% (11/41)	32% (13/41)	41% (17/41)	8	31	3	0	0	32	1	7	1	3	36	2
Green gram	8	nil	8	nil	nil	100% (8/8)	0	0	8	0	0	4	1	3	nil	2	6	nil
Peanut	60	22	38	21% (8/38)	18% (7/38)	61% (23/38)	0	7	31	0	0	12	6	19	1	8	30	nil
Sesame	12	1	11	nil	18% (2/11)	82% (9/11)	1	0	10	0	0	1	3	7	nil	4	7	nil
Pigeon Pea	7	nil	7	nil	nil	100% (7/7)	0	0	7	0	0	nil	7	nil	nil	2	5	nil

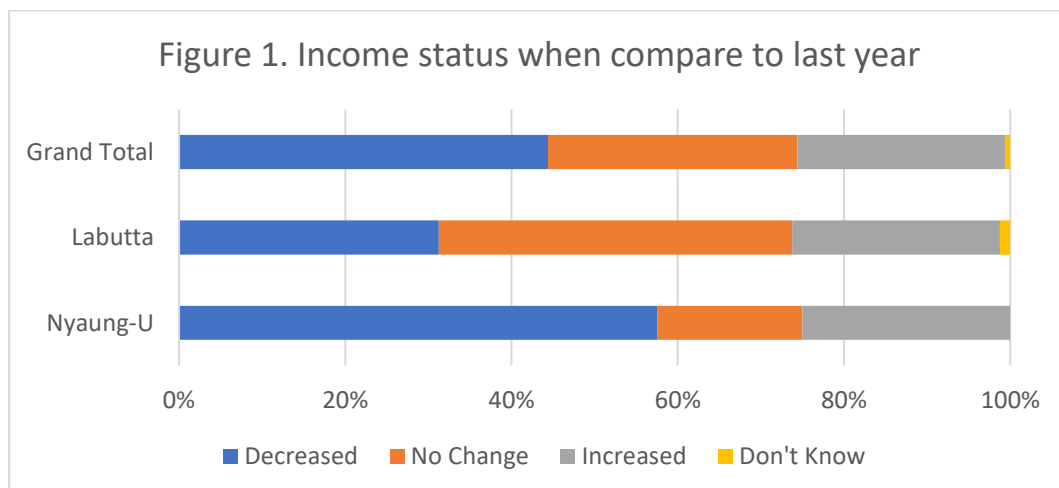
Type of Crops	Number of Farmer Grew	Harvest Sold		If yes, Total Amount Sold			Where, did you sell?					Price compare to last year				Difficulty in Selling		
		No	Yes	<=50%	60 to 80%	>90%	Traders in the same village	Traders outside of village	Town market	Outside of your	Export	Increased	Not Changed	Decreased	Missing	Yes	No	Don't know
Paddy	80	nil	80	1% (1/80)	51% (41/80)	48% (38/80)	11	62	9	0	0	52	14	14	1	16	65	nil
Green gram	14	12	2	nil	nil	100% (2/2)	0	2	0	0	0	1	1	nil	nil	2	nil	nil



Most of the respondents replied that they didn't face any difficulties when selling the harvests.

IV. Income Dynamics

- Only **2.5% (2 out of 80)** farmers in Nyaung-U reported remittances as part of their income. However, the remittances have decreased for farmers in both the townships. **58%** of farmers in Nyaung-U and **31%** in Labutta reported their income has decreased when compare to last year. **(Figure 1)**
- Around **40%** of farmers are optimistic about sales expected to improve in the next three months. However, **27%** of farmers in Nyaung-U and **30%** in Labutta reported neither optimistic nor pessimistic about the sales in next three months.
- **All farmers** in Labutta has outstanding agriculture loans, among them **83%** believe that they can repay the loan after selling of the harvests. In contrast, only **8%** of farmers in Nyaung-U has outstanding loans, among them **67%** has the same believe as their peers in Labutta.



All farmers in Labutta has outstanding agriculture loans, however, **83%** believe that they can repay the loan after selling harvests.

- According to the first survey conducted in September, **80%** of farmers responded that **impact of COVID19** on area of plantation for their monsoon crops is **minimal**. The rest reported that the impact is moderate (**17%**) and high (**3%**). Similarly, participants also reported that **impact of climate change** on area of plantation for monsoon crops is minimal (**42%**), moderate (**38%**) and high (**19%**).
- However, the **impact of political instability** was not able to be accessed in this survey since data was collected in early February when the magnitude of impact on harvest and market was uncertain.

V. Perceived Community Norm and Threat of COVID19

- **Only 9%** of farmers in Labutta reported that they personally know someone who has tested positive for COVID-19 in their village. However, **74%** in Nyaung-U and **70%** in

Labutta reported that they personally know someone who has tested positive for COVID-19 in their town.

- **89%** of farmers in Nyaung-U and **88%** of farmers in Labutta perceived the threat of COVID-19 in their community is dangerous and extremely dangerous.
- **41%** of farmers in Nyaung-U and **20%** of farmers in Labutta believed that less than **50%** of people in community maintained physical distance of at least 1 meter when in public, for instance, when going out to the market for buying inputs/ selling crops (**Table 5**). People in Labutta are more aware of benefits of physical distancing than Nyaung-U.



Although majority of farmers perceived the threat of COVID19 as **dangerous** and have access to COVID19 information, **less than 50% of people** wore masks and practice physical distancing while in public.

	<=50% of population	60-70% of population	>=80% of population
Proportion of farmers in Nayung-U	41%	34%	25%
Proportion of farmers in Labutta	20%	46%	34%

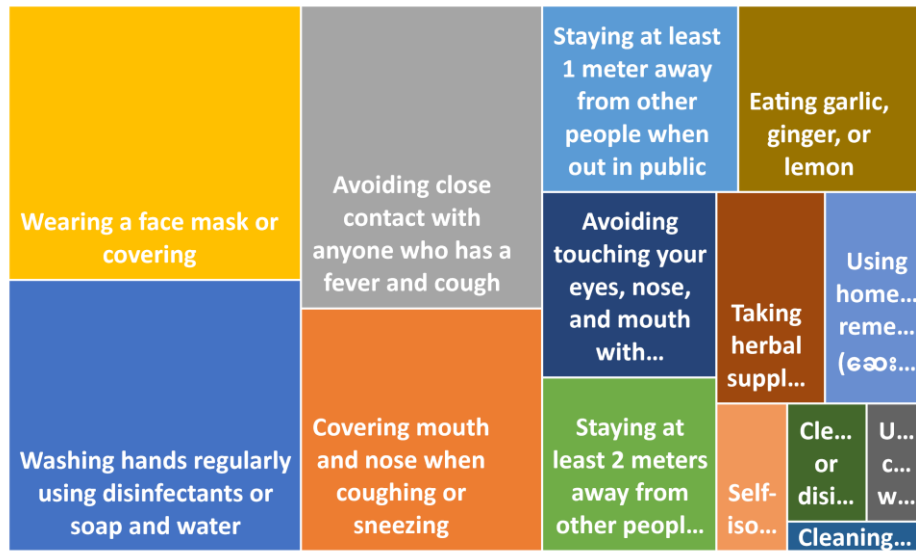
- **94%** of farmers in Nyaung-U and **96%** of farmers in Labutta believed that more than **80%** of people in their community wear a face mask when in public, for instance, when going out to the market for buying inputs/ selling crops (**Table 6**).

	<=50% of population	60-70% of population	>=80% population
Proportion of farmers in Nayung-U	1%	5%	94%
Proportion of farmers in Labutta	1%	3%	96%

- Overall, **29%** of farmers reported that they have heard or read a lot about COVID19 in the past week (**Table 7**).

	Nothing	A little	Moderate	A lot
Nyaung-U	14%	29%	36%	21%
Labutta	0%	29%	34%	38%
Grand Total	7%	29%	35%	29%

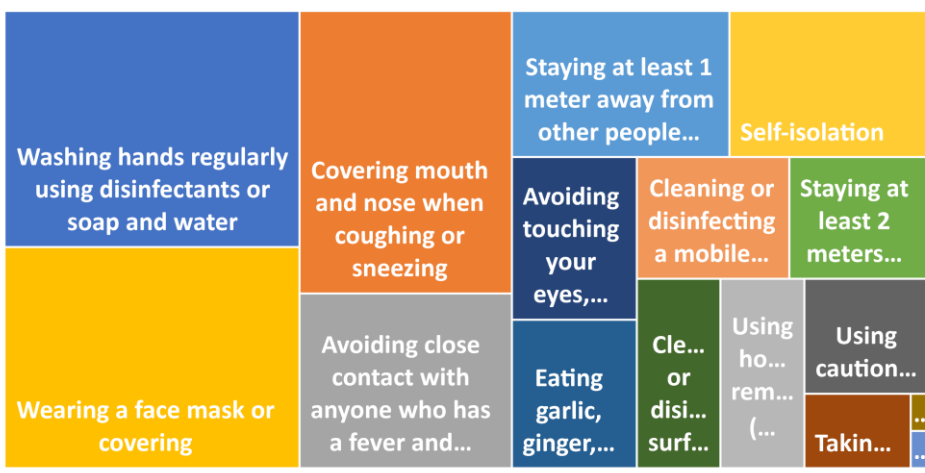
Figure 1. Proportion of common COVID-19 preventive measures in Nyaung-U in the past week



“96% (77/80) of farmers reported wearing a facemask or covering, 95% (76/80) of farmers washing hands regularly using disinfectants or soap and water, 88% (70/80) avoiding close contact with anyone who has a fever or cough and 70% (56/80) Covering mouth and nose when coughing or sneezing”

- Although COVID19 cases were rare in study villages, around 70% of farmers reported that they have known COVID19 cases in their townships. Majority of farmers perceived COVID19 is a threat to their community and wore a mask when they were in public. However, less people can follow physical distancing as a practice while in public.
- Almost all participants are fully aware of basic COVID19 preventative measures such as washing hands frequently, wearing facemasks, covering nose and mouth when sneezing or coughing, and avoiding close contact with anyone who were sick in both study townships. Figure 1 and 2 show overall proportions of COVID19 preventive measures reported by the study farmers.

Figure 2. Proportion of common COVID-19 preventive measures in Labutta in the past week



“99% (79/80) of farmers reported washing hands regularly using disinfectants or soap and water, 93% (74/80) of farmers Wearing a face mask or covering and 85% (68/80) Covering mouth and nose when coughing or sneezing”



VI. Changes in Commodity Prices in Study Townships

The Octane 92 and 95 prices remains the same over January to April in both areas. However, Diesel prices has increased by 17% in Labutta over February to April and 37% in Central Dry Zone over January to April periods. The changes in fuel prices will had impact on transportation charges. In Labutta, rice prices have increased by 13% for Paw San and 8% for Kon Ni varieties in March as compared to February. However, the rice prices have decreased back to observed January price in April. Similar price changes trend for rice (Shwe Bo Paw San and Ma Naw Thukha) had also observed in CDZ as well. In Labutta, iodine salt and fishpaste prices remain the same. In CDZ, black sesame price has decreased by 8% between January and Late-April. Meanwhile, for the similar period, the groundnut price has increased by 7% in CDZ. The basic commodity prices information in surveyed townships are described detailed in the **Annex 1 and 2**.

Conclusion and Recommendations

- Majority of farmers responded that the planted acres and productivity were not changed as compared to last year. Similarly, according to survey conducted in September, the impact of Climate Change and COVID19 on monsoon crops plantation is minimal. The findings are also consistent with lower COVID19 caseload in study townships where farmers can maintain their farming activities in their own villages despite movement restrictions.
- Approximately 80% of respondents sold their harvests by the time survey was conducted and majority (90%) of respondents sold to brokers outside of their villages and to town markets. On average, farmers usually keep around 10% of their harvests as a home consumption or seeds for next year crop cycle.
- The reprogramming of current project implementation strategy is recommended in accordance with the development of current political crisis.
- Provision of additional agriculture loans and suspension of interest repayments of existing loans are recommended to build resilient for small scale rural farmers.
- COVID19 related both short-term and long-term agricultural investments are critical to ensure sustainable agriculture production.
- Creating various platforms is also important to improve access to both domestic and foreign markets by rural farmers.
- Expansion and promotion of CSA practices to outside pilot townships is also important.

Annex 1.

Market Price in Labutta							
Sr.No	Item Description	Unit	January	February	March	Early April	Late April
1	Rice (Paw San)	1 bag (24 Pyi)	-	40,000	45,000	40,000	40,000
2	Rice (Kon Ni)	1 bag (24 Pyi)	-	37,000	40,000	37,000	38,000
3	Oil (Groundnut)	1 viss	-	3,800	4,000	4,000	4,200
4	Oil (Vegetable)	1 viss	-	5,000	5,000	5,000	5,200
5	Oil (Sunflower)	1 viss	-	5,700	5,700	5,700	6,000
6	Onion	1 viss	-	600	700	800	800
7	Garlic (small size)	1 viss	-	4,500	5,000	4,000	4,500
8	Garlic (Large size)	1 viss	-	3,500	3,500	3,500	4,000
9	Iodine (Salt)	1 viss	-	2,000	2,000	2,000	2,000
10	Chilli (Dry)	1 viss	-	5,000	5,000	4,000	4,000
11	Fishpaste	1 viss	-	3,000	3,000	3,000	3,000
12	Chickpea	1 viss	-	2,800	3,000	2,500	2,500
13	Petrol (92)	1 liter	-	900	925	925	925
14	Petrol (95)	1 liter	-	975	975	975	975
15	Diesel	1 liter	-	800	950	950	937

Annex 2.

Market Price Comparison in CDZ							
Sr. No	Items	Unit	January	February	March	Early April	Late April
1.	Rice (Shwe Bo Pawsan)	1 bag	52,000	52,000	55,000	52,000	52,000
2.	Rice (Ma Naw Thukha)	1 bag	30,000	30,000	31,000	32,000	32,000
3.	Oil (Sesame)	1 viss	5,000	5,500	6,000	6,500	7,000
4.	Oil (Soybean)	1 viss	6,200	6,500	7,000	7,500	7,600
5.	Black Sesame	1 basket	49,000	49,000	45,000	45,000	45,000
6.	White Sesame	1 basket	38,000	38,000	38,000	39,000	39,000
7.	Groundnut	1 viss	3,000	3,300	3,300	3,200	3,200
8.	Green gram	1 viss	3,000	3,300	3,500	3,600	3,600
9.	Petrol (92)	1 liter	720	770	895	900	975
10.	Petrol (95)	1 liter	800	850	1,050	1,070	1,120
11.	Diesel	1 liter	725	775	900	920	990

About FAO SLM project

The “Sustainable cropland and forest management in priority agro-ecosystems of Myanmar (SLM)” project is a five year project implemented with the financial support of Global Environment Facility (GEF) and has been promoting the climate smart agriculture (CSA) and sustainable forest management (SFM) practices in five pilot townships in three agro-ecological zones (upland/hills, central dry zone and delta/coastal zone).

The project provides not only policy and regulatory framework support relating to goal of the project but also implements field activities through Farmer Field Schools and community-based forestry management approaches in partnership with two distinct ministries – “Ministry of Agriculture, Livestock and Irrigation” (MOALI) and “Ministry of Natural Resources and Environmental Conservation (MONREC).”

Contact

Building no. 39, Forest Department
Ministry of Natural Resources and Environmental Conservation
Nay Pyi Taw, Myanmar
Phone: 09 423334625
Email: slmmyanmarinfo@gmail.com
Website: www.slmmyanmar.info

Recommended citation: FAO SLM-GEF. 2021. Follow Up Survey to Identify Productivity and Marketability of Small-Scale Farmers in Monsoon Cropping Season amid COVID19 Pandemic: Result of Telephone Interview.