



## Agenda

1. The state of the agri-food system in Myanmar (IFPRI)
2. Initial findings about the ongoing crop mapping (ADPC)
3. Updates from Myanmar Climate Action Network and Climate Data Analysis (UN-Habitat)
4. Updates on Cluster/Sector/Agency initiatives
5. Activity Updates from MIMU
6. AOB and other discussions

## Attendance

Chair: Ole Hansen (MIMU)

Participants: UNDP, WFP, MIMU, REACH, MSI, MNC, FSC, CP AoR, UN-Habitat, IFPRI, FAO, PI, PSEA Network, ADPC, OCHA (23 participants from 14 organisations)

### 1. The state of the agri-food system in Myanmar (IFPRI)

The presentation was based on the recent findings from Myanmar Agricultural Performance Survey (MAPS). The latest iteration of the survey was conducted in June/July 2023. The survey involved interviews with around 5,000 households across various townships, with the number of respondents indicated on a map.

The survey focused on the performance of dry season crops. About 70% of crop farmers indicated they were cultivating during this period. Security issues were already significant at the time of the survey and have since worsened. The impact of insecurity at various agroecological zones was also discussed. 15% of farmers reported serious security concerns for mobility; 5% reported fields burnt or harvests destroyed; 8% were unable to cultivate due to conflict.

Despite these severe constraints, input supply has been resilient. Most farmers reported access to fertilizers, seeds, pesticides, and mechanization, albeit with price increases. The primary concern was agricultural labor scarcity, attributed to rural-urban migration.

Input prices saw increases but they were less than previous years. Significant price increases were observed for paddy (69%) and oilseeds (33-38%), while major pulses had smaller increases. The disparity between paddy and rice prices indicated transportation and milling challenges due to mobility issues and electricity problems. As output price increases higher than inputs, real profits, when adjusted for food basket costs, have increased but less significantly due to inflation. Rapid inflation of other food items was discussed as well, highlighting the unreachability of healthy diet for many people in Myanmar.

Other recent developments discussed include

- The impact of increasing violence and insecurity on agriculture
- Increasing fragmentation of agricultural markets due to violence (with price differences between secure and insecure areas)
- Declining agricultural exports (reaching the lowest levels since 2015-16)

#### Q&A

- Discussed the causes of labor scarcity (primarily migration for employment)
- Discussed the methodology for categorizing insecurity (based on farmers' self-assessment)
- Discussed plans for upcoming surveys
- Discussed the challenges in analyzing profits due to unstable currency and lack of updated CPI leading to the use of deflated prices - suggested to convert MMK to nominal value of USD for comparison

## 2. Initial findings about the ongoing crop mapping (ADPC)

The presentation focused on the findings from Mapping Monsoon Rice Cultivation in Myanmar from 2017 to 2020, an initiative of Asian Disaster Preparedness Centre (ADPC). It aims to study monsoon and post-monsoon rice cultivation in Myanmar. Publications from 2020 and 2021 are accessible on ADPC website.

### Methodology

The machine learning model produced probability maps based on satellite imagery indicating the likelihood of rice cultivation. This methodology has been employed consistently across the years, with minor adjustments. The primary challenge was the monsoon cloud cover, which necessitated the heavy use of Sentinel-1 imagery from 2017 to 2020. Subsequent years of 2021 and 2022 used additional data from higher resolution satellite sensors such as Sentinel-2 and Planet. Sentinel-2 data was also used for visual inspection. The methodology overview was then presented further in a detailed diagram.

Due to the resource constraints and various limitations, different validation approaches were employed and relied on visual interpretation. Preliminary results aligned with GAD data which further improved the confidence of the results. Future work will include rigorous validation for more recent data due to the absence of government data.

### Discussions on Future Work included

- Finalization of the historical model and validation for monsoon seasons in 2017-2020.
- Plans to extend mapping to Kayah and Kayin states and the monsoon season of 2023
- Revision of the models from lessons learned
- Mapping post-monsoon (summer) 2017-2020

Expressed Interest in collaborative efforts with other organizations for data validation and methodology sharing.

Similar methodologies are being applied to maize and beans/pulses mapping despite challenges in mapping smaller and scattered fields of beans/pulses. There was a discussion on the exploration of deep learning models beyond the Google Earth Engine console.

### Q&A

- Emphasized the need for ground data collection for model validation
- Potential for collaborative efforts with INGOs and local organizations for field data collection

## 3. Updates from Myanmar Climate Action Network and Climate Data Analysis (UN-Habitat)

Myanmar Climate Action Network (M-CAN) is a network of non-state climate actors voluntarily committed to address the climate change issues in the country. Recent timeline of activities was presented briefly spanning from Dec 2022 to Dec 2023 with various regular and committee meetings. Vision, Mission, Objectives, and Guiding Principles of the Network was presented as well. Member updates was presented briefly. M-CAN started with 20 member organizations and now consists of 47. In terms of public activities, Myanmar climate action week 2023 and World Environment Day 2023 event were highlighted, held from 20 – 26 March. M-CAN is also hosting initiatives such as “Green skill training for youth led climate activities”. Recent “Greener Campaign” was also mentioned. M-CAN can also be explored through the digital knowledge platform.

### Upcoming collaborations include

- Webinar series
- Thematic group on school led climate actions
- Climate Gender Analysis (UN-Habitat, OXFAM)
- Study on Climate Security and Conflicts (UN-Habitat, UNDP)

The supported provided in terms of data and geospatial analysis related to climate change was summarized as part of the Myanmar Climate Change Alliance phase 2 (MCCA2). Highlighted the need for knowledge of climate

change, coordination of initiatives, and private sector engagement. The phase 2 is being conducted in 8 townships across 4 states and regions. The focus is on providing geodata related to climate change, combining secondary and primary data. The team is conducting fieldwork and workshops with local communities to gather primary data. This involves understanding risks and observing daily life, aiming to combine this primary data with secondary sources. Noted the difficulties of conducting fieldwork due to the current context and complexities.

This was followed by a brief introduction on the concept of GIS and IM. This led to the brief discussion on the methodology for spatial analysis, including planning, data sourcing, processing, and analysis. Discussed producing base maps and thematic mappings, including mangroves, air pollution, extreme heat, flood risks, and erosion of riverbanks. Also mentioned population density mapping and climate change factors such as surface temperature and sea level rise.

#### Discussions & Q&A

- ADPC proposed collaboration on land cover updates, including mangrove data in Myanmar
- Discussed the integration of analyses with local activities, emphasizing the importance of combining field assessments with secondary data to identify the impacts of climate change on local communities

## 4. Updates on Cluster/Sector/Agency initiatives

Other participants did not provide any updates on their activities.

## 5. Activity Updates from MIMU

#### Completed Activities:

- Release of 5W Products as of October 2023
- Information Management (IM) Workshop to WHO conducted in November
- Basic QGIS Training provided to UN-Habitat
- PowerBI Training conducted for IMN members

#### Current and Upcoming Activities (December 2023):

Updating PCode Version 9.5, with a focus on villages in Tanintharyi and Mon.

- 210 villages with added coordinates.
- 881 villages with modified coordinates.
- 153 new villages added.
- Total of 1,244 villages updated.

Updating Baseline dataset with 292 indicators across 13 sectors from 2009 to 2023, sourced from 434 entries at various administrative levels

- Digitized Data from international reports such as IMF World Economic Outlook, UNAIDS Data, UNSD Statistical Yearbook, and WB World Development Report

GIS working group meeting scheduled

IM Workshop for IMN members

Basic QGIS Training for IMN members

#### Planned Activities (Early 2024):

- Assessment/Publication Tracking.
- Advanced Excel Training.
- Launching of PCode version 9.5.
- 5W updates with support sessions

## 6. AOB and other discussions

The next regular meeting will be tentatively in the first week of February 2024.

Participants are encouraged to suggest and/or contribute presentations to the next meeting.