

GIS Working Group Meeting – 13th November 2024

Chair: Zaw Win (MIMU)

Participants: ADPC, BIMM, CDE, DRC, GIZ, HALO, ICRC, IPA, JOICFP, MAM, MANA, MFA, NRC, OCHA, PIM, SCI, UNODC, UNWFP, WHO, WVM and MIMU (28 participants from 21 organisations)

1 Impact of Crop Damage from 2024 Monsoon Season Floods – ADPC

Flood monitoring and impact analysis highlighted significant advancements and challenges in flood data utilization. Since 2017, daily river water level data has been systematically collected by the Department of Meteorology and Hydrology. Eight years of historical data are now accessible through platforms like the MIMU website and made by the Myanmar GeoInformatics Society with Tableau. Automation has streamlined the process, and efforts are underway to integrate this data into flood hazard and crop impact maps.

In July 2024, riverine floods affected 125,520 hectares of paddy fields, with Bago (East) experiencing the largest area impacted, while Sagaing (Homalin and Paungbyin Townships) had the highest proportional loss of 32% in rice cultivation, including Bago (West) and Magway (Pwintbyu, Yesagyo, Salin and Minbu Townships).

September 2024 saw flash floods impact 158,317 hectares, with Kayah suffering the highest proportional damage of 34% of its rice fields and impacted 158,317 hectares across Bago (East), Kayah, Mandalay, and Shan (South) regions. Prolonged flooding, particularly when water depth exceeded one meter, significantly increased crop losses. However, challenges persist, including distinguishing standing water from flooding and limited upstream water monitoring stations.

Proposed developments include creating story maps to document flood events, enhancing public awareness, and developing multi-year flood hazard risk maps using tools like Digital Elevation Models (DEM). These initiatives aim to improve disaster preparedness, early warning systems, and policy measures for mitigation. Key data sources for this work include

- River water level data: <https://www.moezala.gov.mm/daily-water-level-forest>
- River water level visualization: <https://themimu.info/river-water-alerts>
- Flood hazard data: HydraFlood <https://hydrafloods-servir.adpc.net/map/>
- Crop data: Land and Agriculture Monitoring Project (LAMP) <https://myanmar-me-servir.adpc.net/>
- SERVIR: <https://servirglobal.net/>
- SERVIR SEA: <https://servir.adpc.net/>

The meeting emphasized the importance of leveraging technology and collaboration to mitigate flood impacts effectively.

2 Forest Fire Risk Mapping in Kyauktalone Area (Taunggyi Township, Shan State) – MFA

"Forest Fire Risk Mapping in Kyauktalone Area" explores fire risks in Southern Shan State's Kyauktalone area, focusing on understanding fire use, traditional land management practices, and conducting vulnerability assessments to inform fire management and risk reduction strategies. The study, spanning 5,057 hectares across

	<p>nine villages in Kyauktalone Sub-Township, utilized geospatial analysis and field surveys to assess forest resources, biodiversity, socio-economic conditions, and fire risks. Key causes of forest fires were identified, including fire use for grazing, carelessness of trekkers, firewood collection, and NTFP-related activities near market trails.</p> <p>The research developed a Forest Fire Risk Index (FRI) incorporating factors like land use, slope, elevation, and proximity to roads, validated with Fire Hotspot Data. Recommendations included pre-attack fire prevention plans, fire response protocols, and post-fire rehabilitation strategies. Ecological documentation noted the area's biodiversity, including 40 tree species, 10 NTFPs, and various wildlife. The study combined traditional knowledge and modern GIS-based mapping to support informed decision-making for fire management, emphasizing the importance of local collaboration and strategic planning for sustainable outcomes.</p>
3	<p>MIMU</p> <p>Recently Finished Activities</p> <ul style="list-style-type: none"> • Development of MIMU HDP Nexus 5W Dashboards and Maps • Delivery of Advanced Excel Training. • Updated Base Maps at State/Region and Township Levels • Monitoring and Mapping of Cyclone and Flood Situations • Updates to Cluster Pages <p>Gender in Humanitarian Action (GiHA) Initiatives Cash and Markets Working Group (CMWG)</p> <p>Current Activities in 2024</p> <ul style="list-style-type: none"> • Conducting Data Visualization and Communication Training • Hosting Information Management (IM) Workshops • Delivering Basic GIS Training • Providing MIMU Excel Distance Learning Sessions • Updating Geospatial Datasets • Tracking and Updating Assessments/Publications • Revising and Updating Baseline Datasets
4	<p>AOB</p> <p>CDE has been actively working with young Myanmar contributors to enhance Open Street Map (OSM) datasets since early 2024, significantly scaling up activities since August. The focus has been on adding detailed roads and settlement areas, especially in Southeast Myanmar and other parts of the country. Additional information has been imported to make OSM a more reliable base map for various users.</p>

	Plans are underway to provide a clean version of roads and settlement areas for easy download, potentially through the MIMU website. This dataset is expected to be particularly valuable for creating large-scale, detailed maps at scales of 1:50,000 or better. CDE encourages collaboration with anyone interested in improving OSM, sharing data, or focusing on specific priority areas to make OSM a better and more dependable mapping resource for Myanmar.
	Next meeting is tentatively scheduled for Q1 2025.