**Minutes of IM Network Meeting: 3rd October 2018**

Chair: Shon Campbell, MIMU Manager.

Participants: UNFPA, UNHCR, MIMU

|  |  |  |
| --- | --- | --- |
|  | **Issues discussed** | **Next steps** |
|  | **GIS Working Group Meeting on Flood Mapping Methodologies and Tools**The MIMU-convened GIS Working Group has resumed; meetings will be held every 2-3 months with a focus on specific technical topics. The technical working group remains focused on issues relevant to humanitarian and development sectors but individuals from private and academic sectors may also be invited where relevant. The 4 objectives of the GIS WG are (1) Technical forum to exchange on new geospatial tools, techniques and methodologies, (2) Data sharing, updates on recent data and data standards promotion, (3) sharing information on members projects and to review synergies with other initiatives, (4) Sharing information on capacity building and events related to GIS and Remote Sensing.The meeting in late September focused on Flood Mapping Methodologies and Tools and was attended by 20 participants from 16 agencies/entities. Presentations were as follows: * **Historical Flood Index Tool (ADPC/SERVIR Mekong)**. This is being developed together with the Dept of Disaster Management and focuses on creating a tool to assess township level flood hazard. Using Landsat (optical satellite) images from the last 30 years through the Global Surface Water Dataset, water layers have been extracted and the water occurrence measured over time (by occurrence of pixel) to create maps showing flood frequency and a flood hazard index. Challenges are limits to visibility through cloud cover in the Landsat data; adapting the instrument for seasonal water in paddies, fisheries, ponds; and the use of a township level index rather than lower levels such as village tract (mainly an issue where small sections of the TS are exposed to flooding). This tool will be released toward the end of 2018 on the SERVIR-Mekong website.
* **Disaster modelling techniques (Yangon Technological University)**. YTU has been trialing six different approaches to flood inundation modelling, based on hydrological and hydraulic analysis. The Bago river basin was used for the case study. The research was conducted in partnership with the University of Tokyo. The research teams obtained very good results however there are many uncertainties in flood inundation mapping due to the complexity of the model parameters and the amount and quality of input data.
* **Crop damage assessment tool (FAO)**. FAO has been working with MoALI to develop new methodologies which can more effectively assess crop damages. This includes mapping based on available information, participatory rural appraisal technique with local populations, and drone mapping technology in which the water-affected areas are clearly visible. The focus so far has been flood-affected areas of Mon, Kayin and Bago. but it could potentially be adapted to use for drought and landslide-affected areas. Challenges are the lack of baseline data on crops. Possible use of the methodology without the drone component (to promote scalability once the method has been validated) was also discussed.
* **Ground truthing of satellite data processing and the use of flood maps (MIMU).** Myanmar has access to 2 international charters which can be activated in emergencies (Sentinel Asia and the International Charter for Disaster by UNOSAT/UNITAR). This year images were provided intermittently throughout the flood period on various flood-affected areas. The satellite data provided in these images was processed by MIMU, ADPC and OMM to generate detailed flood maps which were then disseminated by DMM at Union and field level (DDM offices). The three organisations also generated a list of probable-affected villages based on the satellite data to support response. MIMU conducted a field mission in late August to collect ground truth data and assess the use of the flood maps by responders. A key finding was that field-based responders require different tools as GAD provides information on which villages are flooded and the populations in these locations, however the maps and particularly the listing of probable-affected villages generated from the mapping data are useful at Union level. Challenges are the periodicity of the satellite images which do not allow the capture of flash floods and estimation of the duration of the flood inundation.
* **Web-based application of disaster risk modelling being developed by RoyalHaskoningDHV.** This is part of an ADB supported initiative focusing on disaster risk management and climate change and adaptation. The project aims to develop tools useful nationwide based on a pilot for the Ayeyarwady Region. The flood modelling component is being completed over a 10-month period working with the Government. The product will be a web-based platform hosted by the OneMap Myanmar platform. Disaster risk maps, related to tropical cyclones and flooding, are being prepared to indicate who is at risk and where, as well as monetary estimates of likely impact and how the risk will change in the future.

In conclusion, it was noted that there are a number of very valuable initiatives, focusing mainly on understanding risk. These are less useful for direct flood mapping or response during emergencies, and there are currently no linkages between the various initiatives. All are developing bespoke tools for the Myanmar context and the question stands as to whether tools have been developed for other countries which could readily be adapted for local use to bring some of these factors together. |  |
|  | **Surveys, Assessments and National Initiatives:****IM Network Redatam workshop 19 September (UNFPA, OMM) -** MIMU organised the half day orientation on accessing and mapping census data held on September 19th with over 20 participants which was facilitated by UNFPA and OneMap Myanmar. Participants noted that it was extremely helpful. **Update on developments in the National Strategy for Development of Statistics (NSDS) -** CSO released the NSDS draft implementation action plan 2018/19 – 2022/23 in September for comment. The NSDS began in 2013 as an initiative of the Government of Myanmar to support the development of quality of statistics and Myanmar’s statistical system. The first part of the NSDS was approved by the Cabinet in May 2016 and includes an assessment of the National Statistical System (NSS) and a strategic framework for the development of statistics. The second part of the Myanmar NSDS presents a five-year implementation plan with actions and activities to achieve the strategic objectives so as to produce timely and reliable national statistical information in accordance with internationally accepted methodological standards. NSDS priorities also link with key government priorities in terms of the Myanmar Sustainable Development Plan (MSDP) and support to the Sustainable Development Goals (SDGs) which include over 200 indicators. Additional indicators may also be needed to monitor the MSDP as it takes shape.The CSO has been tasked to build on the SDGs to further expand the national dataset for the monitoring and evaluation of government policies and programs. The NSDS implementation plan describes critical actions that will support proper monitoring of the SDGs. Assessment of the National Statistical System (NSS) notes some improvements since the elaboration of Part 1 of the NSDS but also ongoing weaknesses in the NSS relating to fragmentation and limited coordination, limited statistical and IT related infrastructure, limited human resources, limited relations with users, poor dissemination practices, and duplication of data collection efforts. Priority areas of intervention- the NSDS implementation plan is a country-wide plan which emphasizes the need to improve software and hardware, and to steer statistical production towards meeting user needs. It will focus on improving the Legal and Organizational Infrastructure, Statistical Infrastructure, User-Producer Dialogue and Data Dissemination, Information Processing Infrastructure and Human Resource Capacity.The NSDS implementation will initially focus on strengthening capacity and reducing data gaps in the improvement of Economic, Demographic, Social and Environmental Statistics. As per the new Statistics Law, NSDS implementation will be coordinated and supervised by the Central Committee for Data Accuracy and Quality of Statistics (CCDAQS) with the DG CSO as Secretary of this group. A mid-term review (MTR)/evaluation of the NSDS will be conducted in the 3rd year (2020) to assess the continued relevance of the plan, required changes, priorities and resource allocation. |  |
|  | **Update on the status of GIS datasets / DHP nexus****Administrative Boundaries**: MIMU has 1:250,000 scale administrative boundaries, countrywide, including the self-administered zones. When it comes to Village Tracts (VT); boundaries are indicative due to the lack of official maps and frequent changes of VT boundaries. MIMU is currently digitizing Ward boundaries based on available data from GAD TS profiles (2017) for 151 towns. Information is more limited for conflict-affected areas (Shan, Kachin State and Maungdaw TS).**Settlements**: As a result of MIMU efforts with support from partner agencies and some government partners, we are currently able to map 78% of the 66,691 settlements. There are however still many disparities and villages are depicted in MIMU datasets and maps as a dot rather than reflecting the spread of the village. Information is not available on population at village level due to its reliance on Census data (focusing on enumeration areas which are aggregated to VT level). MIMU has developed a mobile application to complement the village database from partners at field level and this will be rolled out through the GIS WG and in areas with particularly low levels of village mapping and with agencies conducting larger surveys.**Elevation**: Comes from free-of-charge global datasets (SRTM, Aster, MERIT) – 30m and 90m resolution in horizontal and 5-6 m vertical. Higher resolution can be available - through high resolution satellite data, use of drones, etc.) however these need to be purchased.**Hydrology**: Updated by MIMU with 2017/18 Landsat data. This information is currently available only from MIMU.**Roads**: Combines information from MIMU, topo maps and OSM data. In terms of other data sources, OSM is still far better in larger urban areas than rural areas.**Landcover**: Data from SERVIR-Mekong processed in collaboration with the Government of Myanmar. The 2016 data is available at 30m resolution with 22 land cover categories, along with a forest cover monitoring system.**Population:** Worldpop population grid information which indicates density at a 100-metre squared based on satellite image processing, Census data. MIMU has provided updates to Worldpop where newer data was available locally to enable Worldpop to update this as far as possible.**Ethnicity**: No available information. Data was collected in the 2014 Census but has not yet been released.**Religion**: State/region level Census data available. Information at lower levels is not yet available.**Infrastructure mapping**:* Schools - MIMU has worked with MoE and UNESCO to collect the location coordinates of formal sector schools across the country. This information will be released soon.
* Health facilities – Limited available information. Mapping was partially done in 2014 (MIMU, DHP) but not verified. Currently MoHS with UNICEF, WHO and a consulting company Health GeoLab Collaborative are making an inventory of all health facilities and settlements countrywide to better plan Immunization programmes. It is not yet sure if/when it will be available.
* Bridges – not publicly available
* Telecomms - not publicly available
* Electricity grid – very little data
* Energy – almost no data publicly available
* Radio coverage – MIMU mapping done in 2014 of main free-to-air radio coverage and the languages of broadcasts to support the planning of early warning activities. MIMU sought to update this however key holders of information would like to see a finer resolution map. MIMU has not been able to move forward on this due to the complexity of the exercise.

**Hazard mapping:*** Flood extent – little data and not so usable at this stage - historical data is not available, little access to modelling.
* Earthquake – Maps of the fault-lines exist but at low resolution only. 100 years of historical data on incidence (location, depth and strength of the quake) is available in USGS, but no information on the impact on people, infrastructure or the economy. Interesting initiatives by YCDC and various international partners but the data is not being shared (usually consultancies). Not sure what info is available through the Myanmar Earthquake and Engineering Societies.
* Landslides – no data on affected areas, areas at risk, roads, bridges etc.
* Conflict – Myanmar is included in the global ACLED database (Armed conflict location events database) which includes active conflict, protests and other signs of tension. Inputs to this system are based on media reports which may occasionally have wrong/unverified information. Data is also available on latent and live conflict from The Asia Foundation.
* Cyclones and storm surges – 60 years storm tracking data is available UNISYS. MIMU has produced a simple overview map for the period 1957-2017. No data on impact on people, infrastructure or the economy other than that produced following cyclone Nargis and the Post-Disaster Needs Assessment from cyclone Komen
* Refugees/ returnees - UNHCR global report produced by the regional office in Bangkok (mainly from 90s onwards)
* Internally Displaced – data produced regularly since 2013 for Rakhine, Kachin, Shan and southeastern Myanmar by DDM

To continue with a similar review of the statistics availability in a future meeting. |  |
|  | Updates from agencies, clusters/sectors and working groups**UNFPA** – ongoing work with the Department of Population to optimise use of the 2014 Housing and Population Census data across the country. The recently released Redatam platform has been introduced to UN, academic sector and civil society organisations with guidance on how to use the software in its offline and online forms. The Township profiles are being presented through facilitated discussions for government and civil society representatives at township level through 3-day dissemination workshops in township capitals. These workshops have been conducted in over 290 TS to-date. With the ending of the monsoon, the focus will be on visiting the remaining townships, most of which are in remote areas of Kachin, Shan and Rakhine. Township level data has been put into user-friendly offline and online documents which are presented by the workshop facilitators with salient points on the township, seeking to support the use of this data in area planning processes. Many attending the workshops have noted that this is the first time they have had data about the situation. **UNHCR**: The CCCM cluster in Central Rakhine has discontinued the monthly monitoring, replacing it with a streamlined quarterly monitoring generating more user-friendly cross-sectoral site profiles for the 23 camps in central Rakhine. These include over 20 indicators collected from across ICCG sectors. The results will be available in an interactive dashboard using Microsoft Power BI in late October. A two-page site profile for each camp will also be made available in pdf. The site profile tool will be updated on a quarterly basis.Camp profiling is underway in Kachin and N Shan as part of the longitudinal exercise conducted every 6 months for over 130 camps. Data collection takes around 2 months and is now being undertaken using a mobile-based Kobo tool. Interactive online dashboard products will be shared online later in 2018.The UNHCR team in South eastern Myanmar has developed an access database to support DSW with management of flood assessment data collected at village level. This was previously collected on paper which limited the ability to use and maintain the data, and resulted in much data loss. Local NGOs will support DSW to enter the available data.**MIMU:** 222 agencies shared detailed information on their projects to village level, countrywide, in the September 2018 3W. The cleaned 3W data has been released and is available through the MIMU website. Dashboards, maps and narrative overviews will be released during the month of October. MIMU also arranged the Orientation on accessing and mapping census data with UNFPA and OMM, and the technical GIS Working Group meeting on flood modelling methodologies. Flood mapping, MIMU has continued to support the processing of satellite imagery to map affected areas (with DDM, ADPC), and visited affected areas of Kayin and Mon to ground truth satellite data on flood affected areas.  |  |
|  | **Next Meeting:** The next scheduled IM Network meeting will be on **Wednesday, November 7th, 2018 at 3:00 pm in the MIMU**. This will focus on vulnerability measurement and mapping. |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Participants** | **Designation** | **Agency/ Organization** | **E-mail Address** |
| 1 | Parveen Mann | IOM | UNHCR | mannp@unhcr.org; |
| 2 | Win Myint | NPO (M&E) | UNFPA | wmyint@unfpa.org; |
| 3 | Catherine Lefebvre | Information Management Analyst | MIMU | catherine.lefebvre@undp.org; |
| 4 | Shon Campbell | MIMU manager | MIMU | manager.mimu@undp.org; |