# GIS Working Group Meeting – 31st March 2022

Chair: Javier Manrique (MIMU)
Participants: BIMM, DRC, EWMI, FAO, ICRC, Ipas, KKW Foundation, NRC, SDF, UNICEF, UNDP, OCHA, UNODC and MIMU (23 participants from 14 organisations)

## 1 GIS Working Group Terms of Reference (Review) – *MIMU*

Present GIS Working Group TOR – August 2014

- Background: The GIS Working Group (GIS WG) was formed in 2009 to address common geospatial issue – maps, boundaries, data exchange, standards – that affected the work of humanitarian and development actors in Myanmar.
- Objectives: The GIS WG is a technical group providing a platform for the coordination of GIS initiatives related to humanitarian and development activities. It will not seek to centralize data but would rather be a source of 'information on information', which can help directing interested parties to the agency where specific data are held. Its objectives are as follows: Develop and share best practices, Exchange information and experiences, Promote transparent information sharing, Promote capacity building, Collaborate in developing and disseminating common tools and approaches and Advocate for improved policies.
- Structure and Memberships: The GIS Working Group is a standing working group under the inter-agency Information Management Network and will report back to the IM Network on its activities and progress and representatives from all actors involved in GIS related activities, including NGOs, UN agencies, donors, *government departments* and universities/the academic sector.
- Expected Outputs: regular meetings and shared communications, Data cataloguing, identification of the main challenges of spatial data management, develop a minimum set of key geospatial parameters, definition of roles and responsibilities of major disaster, collaboration in data/information and capacity building exercises.
- TOR: https://www.themimu.info/sites/themimu.info/files/documents/ToR_GIS_Working_Group_2014.pdf

## Environmental Maps

- Global Forest Change 2000–2020
- The Global Land Analysis and Discovery (GLAD) laboratory at the University of Maryland, in partnership with Global Forest Watch (GFW), provides annually updated global-scale forest loss data, derived using Landsat time-series imagery. Results from time-series analysis of Landsat images in characterizing global forest extent and change from 2000 through 2020.
  - **Forest Loss in Myanmar in the 2001 – 2020 Period.** Forest loss during the period 2000–2020, defined as a stand-replacement disturbance, or a change from a forest to non-forest state. Encoded as either 0 (no loss) or else a value in the range 1–20, representing loss detected primarily in the year 2001–2020, respectively.
  - **Forest Gain in Myanmar in the 2000 – 2012 Period.** Forest gain during the period 2000–2012, defined as the inverse of loss, or a non-forest to forest change entirely within the study period.
  - **Tree canopy cover in Myanmar for the year 2000.** Tree cover in the year 2000, defined as canopy closure for all vegetation taller than 5m in height. Encoded as a percentage per output grid cell, in the range 0–100.
- https://www.themimu.info/gis-resources

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| | **Myanmar by Night. 2021 Monthly Night-Time Satellite Images**<br>• Visible Infrared Imaging Radiometer Suite Day/Night Band - *VIIRS – DNB*<br>  • Operational since 2012<br>  • One of the 5 instruments onboard the Suomi National Polar-orbiting Partnership (Suomi-NPP) and Joint Polar Satellite System (JPSS) satellite platform<br>  • Joint partnership between NASA and NOAA<br>  • ***28 Years at a glance video*** https://www.themimu.info/nightlights |
| 2 | **Humanitarian Needs Overview (HNO) / Humanitarian Response Plan (HRP) – *OCHA***<br>Humanitarian Needs Overview (HNO) 2022<br>• Sets out the challenges facing people and provides a common understanding of the context in which we are responding<br>• This is an advocacy and analysis document aimed at guiding response decisions<br>• The key figure in the HNO is the number of People in Need (the PiN)<br>• In the second half of 2021, this was estimated at 3MM people<br>• For 2022 our wider scope of analysis and the deteriorating security, conflict, protection, political and economic situation have seen this exponentially increase<br>• For 2022, it is now estimated that 14.4MM people are in humanitarian need<br>• Myanmar Humanitarian Needs Overview 2022: https://reliefweb.int/report/myanmar/myanmar-humanitarian-needs-overview-2022-december-2021<br><br>Humanitarian Response Plan (HRP) 2022<br>• Prioritized and costed strategy for addressing the needs identified in the HNO<br>• Humanitarians have tried to ensure their response planning (targeting) remains is realistic given the constraints<br>• The HRP requires $826 million to reach 6.2MM people with assistance<br>• This is up from $385 million in 2001 to reach 3MM people<br>• When the plan is published there is no pool of funding automatically available. It is a joint appeal for funds from donors to do the work we (UN & NGOs) have collectively prioritized.<br>• Myanmar Humanitarian Response Plan 2022: https://reliefweb.int/report/myanmar/myanmar-humanitarian-response-plan-2022-january-2022<br>• Financial Tracking Service (FTS): https://fts.unocha.org/countries/153/summary/2022<br>***Contact: Muditha Sampath.*** *Information Management Officer.* *sampathm@un.org* - *https://www.unocha.org/myanmar* |
| 3 | **Text mining the ACLED Dataset – *Myanmar Food Security Cluster***<br>Text mining the ACLED Dataset<br>Understanding the Conflict Dynamics in Myanmar through Conflict and Incident Data: A Food Security Perspective<br>Network graph of conflict descriptions<br>• Focuses on data mining the text within the column notes of the ACLED dataset, which contains a descriptions of each conflict event |

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| | • The relationships between individual words in the conflict descriptions have been presented in a network graph. Each word is a node and the opacity of the line denotes the strength of its correlation to other words<br>**Pairwise correlations**<br>• shows correlations between individual words in the ACLED dataset conflict descriptions<br>**Sources used by the ACLED dataset**<br>***Final Link to be released in the coming weeks.***<br>***Contact: Sean Ng .*** *Myanmar Food Security Cluster. Information Management Officer -* ***Sean.Ng@fao.org*** |
| 4 | ## Food Security data hub / Data in Emergencies – *FAO*<br>Food Security data hub / Data in Emergencies<br>• The data hug was developed by FAO- Office of Emergency and Resilience (OER) for a monitoring system in 25 food crisis countries to better understand the impacts of various shocks on agricultural livelihoods, food security and local value chains.<br>• Funded by United States Agency for International Development (**USAID**)<br>• Monitoring of shocks and agricultural livelihoods in priority countries<br>• **Monitoring system:** data collected from **households** and key **informants** (including agricultural inputs vendors, food traders and agriculture extension officers)<br>• Link: https://data-in-emergencies.fao.org/<br>• The data-hug already launched to public<br>***Contact***: ***Aye Mya Moe.*** *Information Management Officer. Sean.Ng@fao.org - https://data-in-emergencies.fao.org/pages/explore* |
| 5 | ## Estimation of opium poppy cultivation area using Remote Sensing / GIS – *UNODC*<br>• This is circle monitoring program and many times discipline-based drives profession<br>• Cultivation Areas (85% in Shan State), Cultivation Period (Dec-Mar (harvesting)) and Fieldwork (Dec-Mar)<br>• Sampling approach and Target approach using with very high-resolution Satellite Imagery (program-image)<br>• Used risk factors and risk area for potential cultivation area (Land use/Land cover, Altitude, Ground information)<br>• Checking result with ground truth data collection<br>• Myanmar Opium Survey 2020 Cultivation, Production, and Implications https://www.unodc.org/roseap/uploads/documents/Publications/2021/Myanmar_Opium_survey_2020.pdf<br>• UNODC https://www.unodc.org/roseap//myanmar/index.html<br>***Contact: San Lwin Htwe.*** *Remote Sensing and GIS Specialist. sanlwin.htwe@un.org - https://www.unodc.org/roseap//myanmar/index.html* |
| 6 | ## Events<br>This meeting introduces GIS event/conference and trainings for April, May, July and October 2022.<br>• Spectral Sessions 2022: https://spectralsessions2022.pathable.co/<br>• Atlases in Time – National and Regional Issues: https://maps-and-atlases.com/madrid2022/registration/ |

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| | • Cloud-Native Geospatial Outreach Event: https://www.ogc.org/ogcevents/cloud-native-geospatial-outreach-event<br>• Map your world in 3D: https://register.gotowebinar.com/register/2982824834233798158<br>• NASA iTech Focus Event: https://www.eventbrite.com/e/nasa-itech-focus-event-registration-255378773787<br>• GIS for a Sustainable World Conference: https://www.esri.com/en-us/about/events/gis-sustainable-world/registration?aduc=Email&aduca=E_GIS_for_Sustainable_World_22&aduco=gis_for_a_sustainable_world&adut=g2444774_2022_gis4sw_reg_e2b&sf_id=7015x000001PA0HAAW&utm_source=Email&aducp=event_banner<br>• Esri UK Annual Conference 2022: https://www.esriuk.com/en-gb/about/events/ac/overview<br>• International Conference on Geoinformatics and GIS: https://waset.org/geoinformatics-and-gis-conference-in-july-2022-in-ottawa<br>• Esri User Conference 2022: https://www.esri.com/en-us/about/events/uc/overview<br>• ARSET - Mapping Crops and their Biophysical Characteristics with Polarimetric SAR and Optical Remote Sensing: https://appliedsciences.nasa.gov/join-mission/training/english/arset-mapping-crops-and-their-biophysical-characteristics<br>• Going Places with Spatial Analysis: https://www.esri.com/training/catalog/57660f19bb54adb30c9454b0/going-places-with-spatial-analysis/<br>• ARSET - Using the UN Biodiversity Lab to Monitor the Pulse of the Planet: https://appliedsciences.nasa.gov/join-mission/training/english/arset-using-un-biodiversity-lab-monitor-pulse-planet<br>• Imagery in Action: https://www.esri.com/training/catalog/6074ab588e68a831e4d8974b/imagery-in-action/<br>• ARSET - Atmospheric CO2 and CH4 Budgets to Support the Global Stocktake: https://appliedsciences.nasa.gov/join-mission/training/english/arset-atmospheric-co2-and-ch4-budgets-support-global-stocktake<br>• Spatial Data Science: The New Frontier in Analytics: https://www.esri.com/training/catalog/5d76dcf7e9ccda09bef61294/spatial-data-science%3A-the-new-frontier-in-analytics/<br>• Do-It-Yourself Geo Apps: https://www.esri.com/training/catalog/57660ed7bb54adb30c9454a3/do-it-yourself-geo-apps/<br>• Automate Fire Damage Assessment with Deep Learning: https://www.esri.com/training/catalog/61affe2b9ed7396729c49a15/automate-fire-damage-assessment-with-deep-learning/<br>• Basics of JavaScript Web Apps: https://www.esri.com/training/catalog/580fc1dea4a46d172b116049/basics-of-javascript-web-apps/<br>• Getting Started with ArcGIS Pro: https://www.esri.com/training/catalog/57630435851d31e02a43f007/getting-started-with-arcgis-pro/<br>• Classify Power Lines Using Deep Learning: https://www.esri.com/training/catalog/6193e08d5dcc9e4673c19fc8/classify-power-lines-using-deep-learning/<br>• Inspect Assets with Oriented Images: https://www.esri.com/training/catalog/6230e228fb4cbd5509b55471/inspect-assets-with-oriented-images/ |
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