

Applying Geospatial Information Across Complex Humanitarian Problems

UNGGIM 12th Session

Working Group on Geospatial Information and
Services for Disasters Side Event

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Presenter Bio

- Over 30 years **Professional Geographer** based in UK
 - BSc Geography, Durham, UK,
 - MSc Remote Sensing, London.
- **Career**
 - 10 years with *Natural Resources Institute, UK*,
 - Over 2 years *National GIS Coordinator, British Virgin Islands*
 - 20 years *independent consultant* focusing on GIS and Geography in development across the world – special interest in Small Island States.
- **MapAction**
 - Volunteer 17 years, 6 years a Director of the charity, over 10 years Preparedness Coordinator
 - Works to prepare humanitarian landscape for mapping /information management for response – working with International Agencies, countries, regional agencies (CDEMA, AHA, CESDRR, SADC), civil society (ADRRN, GNDR)
 - Exploring new modes (e.g. Anticipatory Action) and use of appropriate technology in humanitarian space.
- Responded to many emergencies – tropical cyclones, floods, migrant crises, epidemics



Alan Mills, MBE, FRGS

Preparedness Coordinator
MapAction

Complexity of response dimensions

Timings of
events

Modality of Aid

For what
purpose

Who
responds

Timing of Aid

Sudden onset

Cash

Food Security

National
Governments

Resilience
Building

Long term

Services

Shelter

International
Organizations

Early Warning and
Anticipatory Action

Nature of
Events

Aid

WASH

Regional
Agencies

Preparedness
to Respond

Epidemic

Advice

Search And
Rescue

Civil Society

Response

Climate
Change

Planning

Health

Communities

Early Recovery

Geotectonic

Communications..

Insurers/ Private
Business

**This is our
Geoverse....**

The Demand for Good Information

Whatever the combination of these complex dimensions,

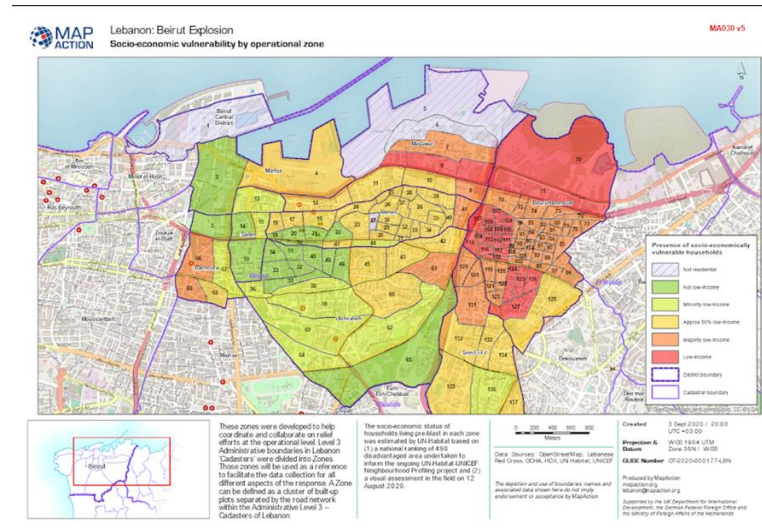
information, particularly geographical information, is essential for all involved to

- understand the vulnerabilities and risks,
- identify what happened
- who was affected
- what they need to recover.



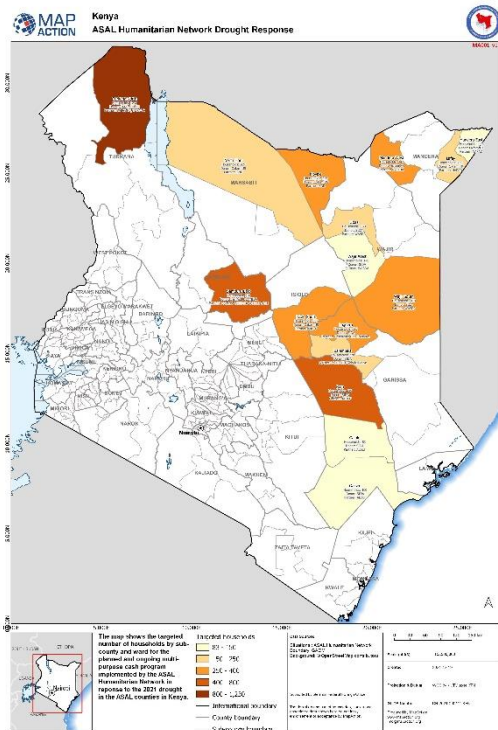
Case Study 1 – A voice for the urban displaced

- GNDR Civil Society Organizations (CSO) members support urban displaced but:
 - Where are they? Small pockets of informal settlement, with families
 - Who are they – disaggregated population needed
 - What do they have access to?
- Detailed mapping is essential.
- IM skills and access to mapped data limited
- Supports GNDR's "[View from the Frontline](#)"

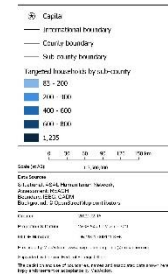


Case Study 2 – Civil Society acts early on drought

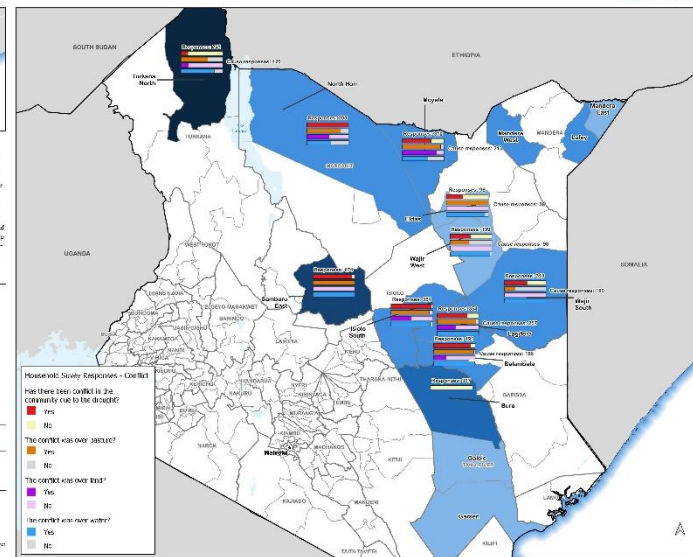
Arid and Semi-Arid Lands of Kenya - drought conditions



The map provides an overview of drought conditions as reported by household surveys from 8-18th November 2021. The bar charts provide the percentage reported responses on conflict due to drought conditions. For example, in Baringo 100% of respondents reported no conflict due to drought and the bar is therefore completely yellow. The 'reported' level shows the number of people's views. The 'assess' response level shows only the number of views that 'yes' in identifying conflict, who then assessed the cause of conflict (spatial, land to water). The map also shows reported in view of households by sub-county, to the planned and ongoing multi-purpose cash program, implemented by the ASAL Humanitarian Network since November 2021.



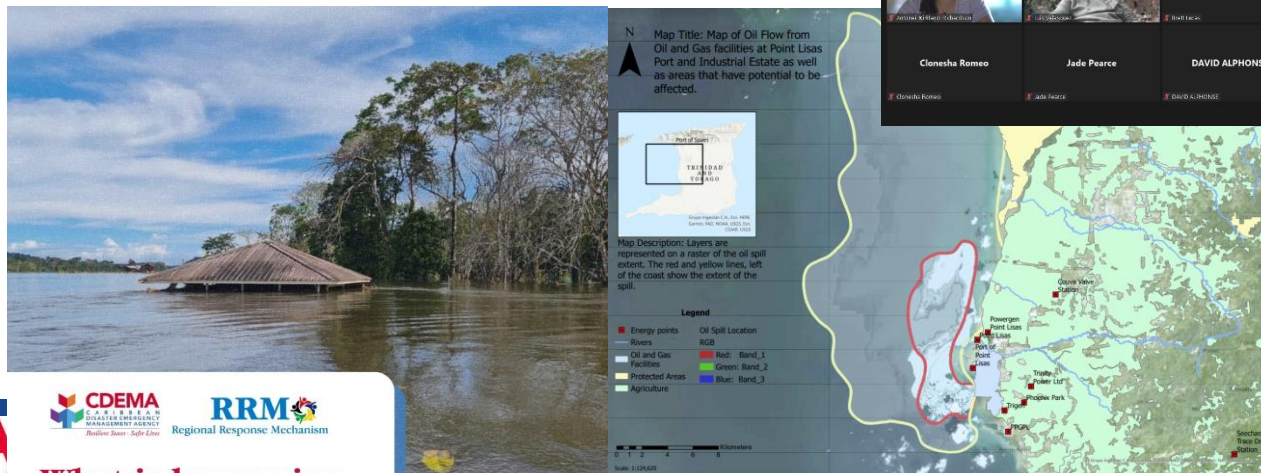
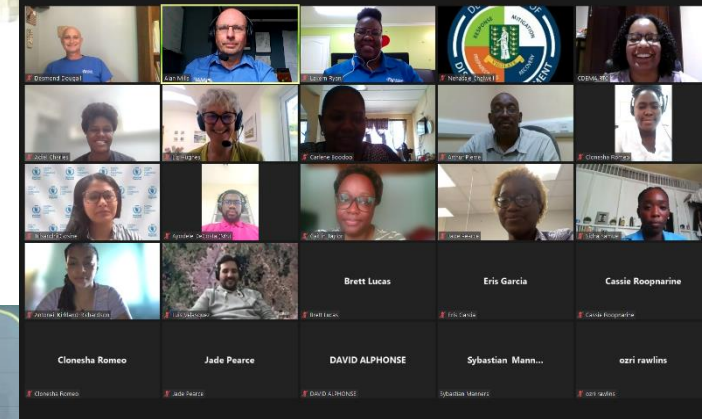
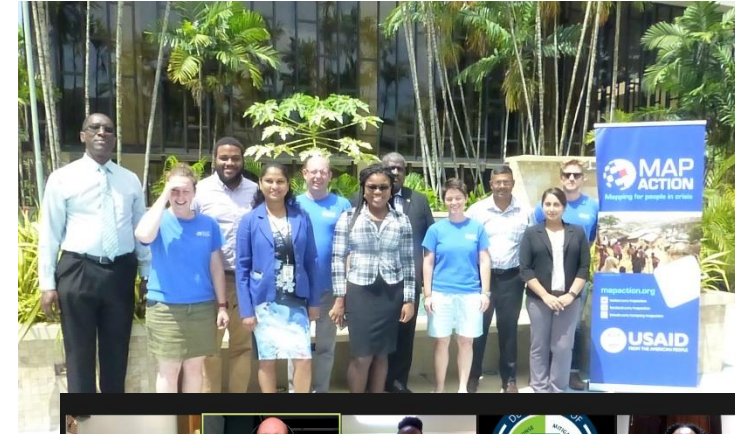
Kenya
ASAL Humanitarian Network Response - Assessment of Drought Impact - Conflict



- Community of CSOs on the front line for food, water, agricultural advice as drought worsen.
- Wanting to preposition and distribute aid before a crisis occurred.
- MapAction supported mapping who the network members are, what they are working on, and where activities are happening.
- Visualized where key drought impacts forecasted
- Helps with internal CSO network planning, visibility of activity and advocacy to donors.

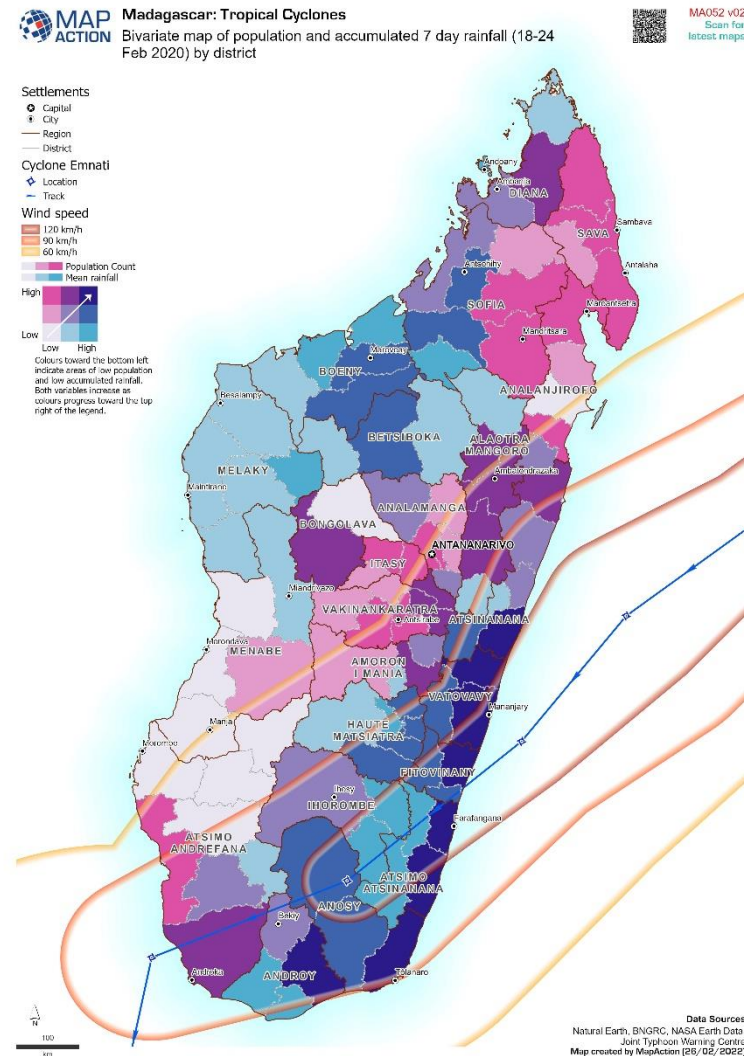
Case Study 3 – Building IM capacity in the Caribbean

- Regional Response Mechanism has teams supporting member states in emergency
- Over last 5 years MapAction support building of IM capacity at the Regional Coordination Centre and across the Caribbean
- Training of NDMA and NMA staff in response mapping, including simulations
- Now “fostering the roster” for a regional response to regional disasters
- Recently CDEMA deployed a Trinidadian to support Suriname Flood Response



Case Study 4 – International Response to Madagascar Cyclones

- Ana, Batsirai, Dumako, Emnati, and Gombo
- National Government put our request for international assistance for Batsirai
- MapAction sits alongside OCHA/UNDAC coordinating international surge for government
- Combining many data sources to help target those most in need
- Still a role – where local disaster management is overwhelmed and international surge support - even more important to share good information for those who do not know the AOI. Data and information need sharing across many actors.



What are the implications for UNGGIM

- The complex dimensions – who, what, where, why , when and who for – needs similar dimensions of data, information, analysis and visualization
- Some key issues
 - Names
 - Data disaggregation – administrative areas, populations
 - Connections with Statistics
 - Detail - complexity of risk data, infrastructure
- UNGGIM can provide the gold standard - the full implementation of the IGIF and Strategic Framework for Disasters (SFD) can support across all these dimensions of disaster information management,
- More cooperation needed to not just between **government agencies**....
-but across the **whole geoscience global community** so we obtain and analyze information to allow all humanitarian and emergency response workers relieve suffering and leave no one behind.
- This will build the Geoverse