

Improving Flood Risk Management Through GIS Flood Tool (GFT)

The Opportunity

Mozambique is highly vulnerable to floods, but most Mozambican river basins lack objectively produced flood inundation mapping around which to build scenarios for preparedness, mitigation, and response planning. The roll-out of GFT presented an opportunity for Mozambique to produce inundation maps of high quality, including flood scenarios that can be used in the disaster management by the government through the National Institute of Disaster Management (INGC).

The Goal

Sustainably improve the network's effectiveness, through the improvement of the quality, availability, and accessibility of flood disaster early warning information to reduce the negative impacts of food insecurity and disasters on vulnerable populations.

The Network

National Directorate of Water Resources Management (DNGRH) through the Water Resources Management Unit (DGRH) in Maputo, Mozambique. DGRH has the mandate to undertake the hydrology monitoring of all river basins to issue early warning information and recommendations in the event of floods.

Key Activities

In coordination with the Government Network focal point, FEWS NET:

- Coordinated with the USGS and DNGRH representatives to ensure that institutional agreement and technical/logistical conditions were set for the implementation of this activity.
- Organized a five-day workshop, led by USGS specialists, to train the DNGRH-selected technical staff on GFT.
- Ensured that GFT was effectively used to map the flood-risk areas of Mozambique and used during the 2017/18 rainfall season.

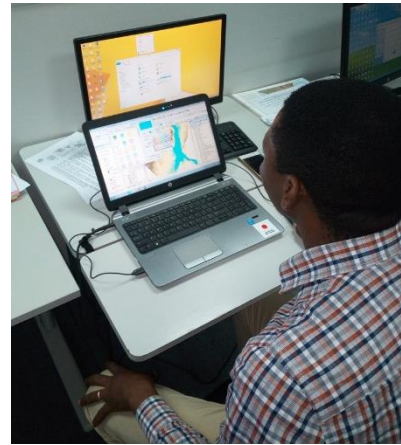
Factors that have Enhanced Success

The extreme importance of this activity in the disaster management process, particularly with respect to floods in Mozambique, together with the full technical commitment by the network (lead agency and all network members).

Key Elements Enhancing Sustainability

- Full commitment – the government through the DNGRH has taken full ownership of the process.
- GFT is operated by highly qualified and competent staff, led by a senior GFT expert.
- Application of GFT is not costly, and data for analysis is readily available.
- The results have been published and successfully used in the disaster management process.

The senior manager, Agostinho Vilanculo, of DGRH working with GFT to produce flood scenarios during the 2017/18 rainfall season



Source: FEWS NET

Map of Mozambique with flood risk areas produced through GFT



Source: DNGRH and FEWS NET