



Water Related Disaster Risk Information for Preventative Investment, Disaster Response and Recovery in Myanmar

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Current Conditions

Main Responsibility of DMH is to provide the early warning

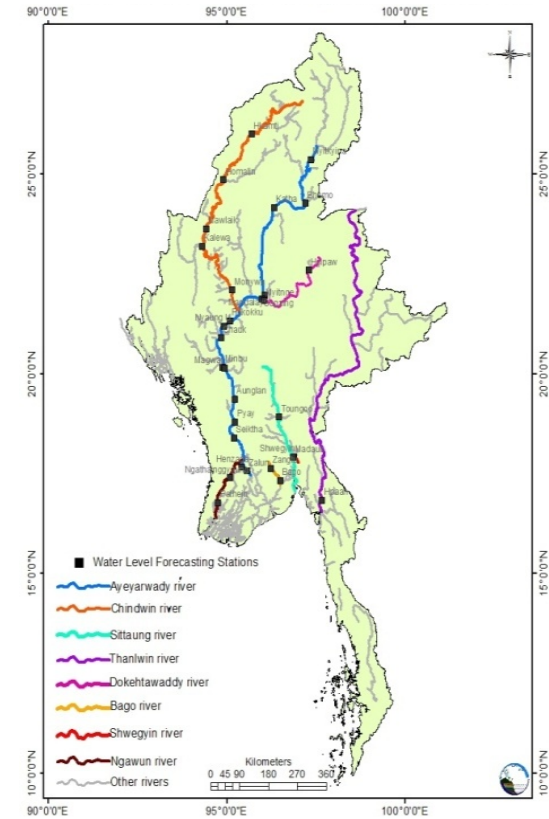
Observation

-Met. and Hydro. Stations - 39	-Agro met. Stations - 17
- Met. Stations - 63	-Upper Air Station - 1
- Hydro. Stations - 28	- Aviation Weather Station- 8

- Daily/ Dekad/ Monthly, Seasonal Weather and water level forecast
- Warnings for Storm, Heavy rain
- **Flood warning, Flood Bulletin** and Significant water level bulletin
- Minimum Alert Water Level and Bulletin (for low flow)
- Seasonal Weather and Flood forecast (Early, Peak, Late Monsoon)

Used Data and F/C Method

- Observed and Historical data
- Wx. Forecasts (Local, International websites)
- Simple/ Multiple Regression Method

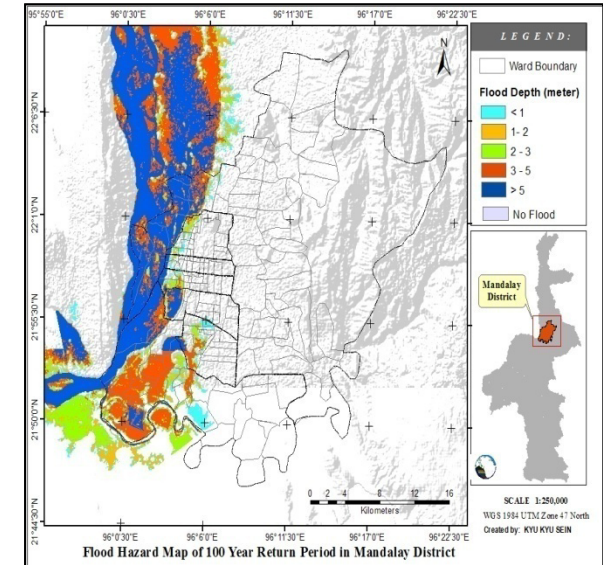
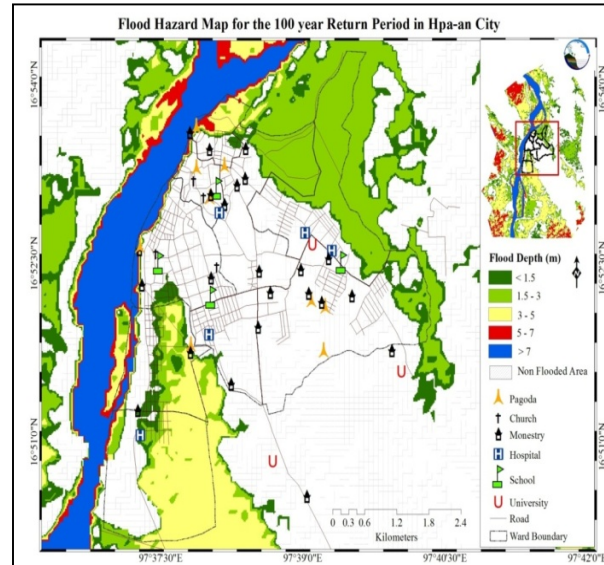
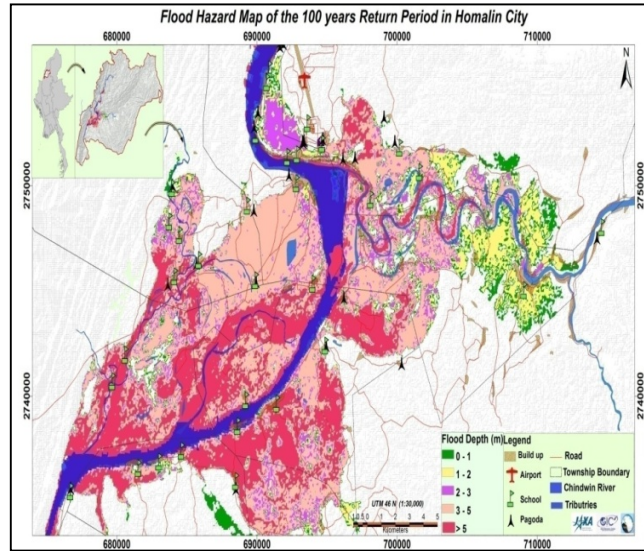


Measured Data after Flood disaster

- Survey Flood Depths
- Collect Damages list and costs

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Flood Hazard Mapping

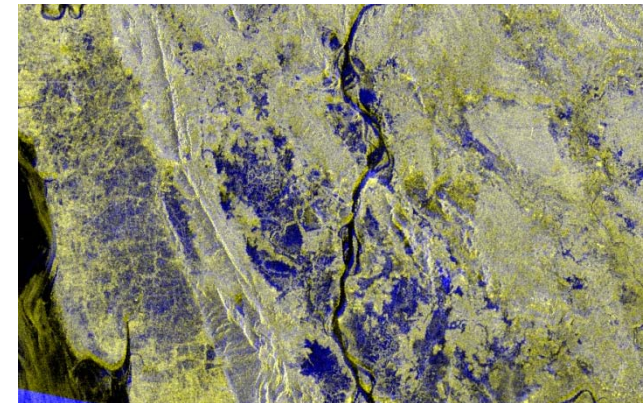


Used Data

- Topomaps (UTM 1:50,000/ 1:250,000)
- Free satellite images (such as LANDSAT, MODIS)
- SAR images provided by JAXA during the project period
- Secondary Data (such as Discharge, Rainfall, **Demographic Data**, Soil, etc.)
- Field Survey Data

Used software

- Quantum GIS, JOSM, NEST4C, HEC-RAS, HEC-GeoHMS (free software)
- ArcGIS, ENVI, ERDAS (crack version)



Requirements

- ✓ **To install the automatic telemetry system for hydro-met station and to upgrade the stations network**
- ✓ **To develop the advanced and effective flood forecasting Methods**
- ✓ **To develop Data based management system**
- ✓ **To develop the flood hazard maps and flood risk maps**
- ✓ **To develop the National wide risk assessment based on space and GIS technology**
- ✓ **High resolution Satellite Images and Good DEM**
- ✓ **To promote the Capacity Building and Infrastructure**
- ✓ **To raise the cooperating and collaborating between the relevant departments, orgs. and public sectors for flood risk mapping (data sharing, data standardization, etc.)**
- ✓ **To cooperate and coordinate with International Organizations (for learning, knowledge exchange, technology support including hardware and software, C.B and Projects etc.)**
- ✓ **To establish of geo-portal based on GIS technologies integrated with national and regional agencies**

Thank you for your kind attention!

Website -<http://www.moezala.gov.mm>