

## → HISTORICAL FLOOD ASSESSMENT

DISASTER  
Mitigation  
preparedness  
DISASTER  
PREPAREDNESS

### IN COLLABORATION WITH:

Nile Basin Initiative Secretariat (Nile EC)  
Entebbe, Uganda



### AREAS OF INTEREST



The Nile Basin Initiative (NBI) is an inter-governmental organization dedicated to sustainable management and development of the shared water resources of the Nile Basin. NBI Member States include Burundi, Democratic Republic of Congo, Egypt, Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda.

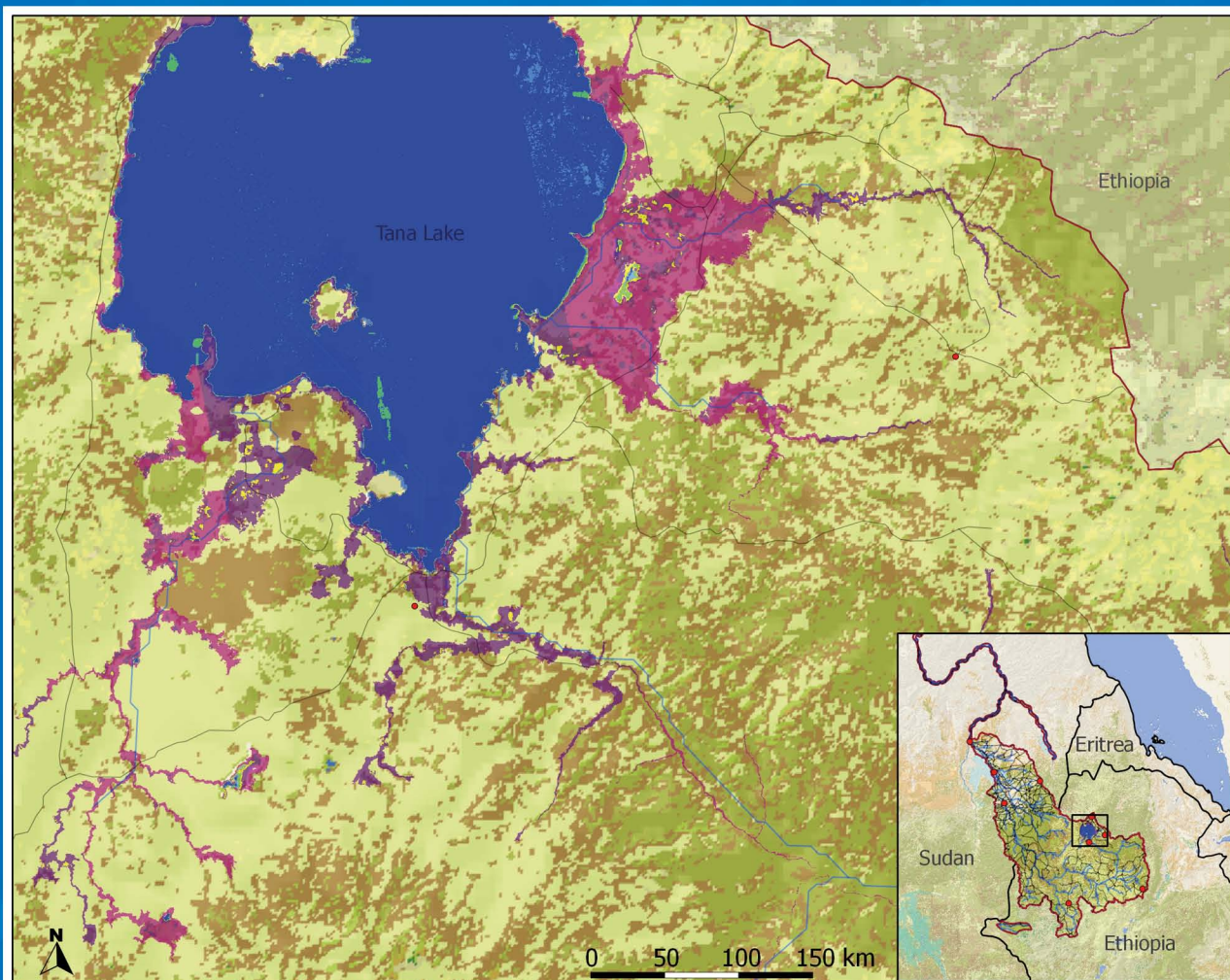
In the past, the individual countries carried out hydrological monitoring in the Nile Basin depending on a ground based monitoring network: this has resulted in some cases in the **generation of discontinuous information acquired with different devices which make comparisons quite difficult**. Trans boundary and coherent data about historical flood extent, dynamics, frequency, as well as availability of up to date information on land cover is essential for disaster mitigation and preparedness.

Earth Observation allows to gather and extract all the needed information: the modules of the **WOIS customised for the Nile Basin Initiative allow, amongst other functionality, the processing of EO data and their GIS analysis to identify and quantify areas subject to changes in the extent of water bodies and the occurrence of floods**. The gathered information helps to assess the effects of the river flow manipulation and water management scenarios.



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### NILE BASIN INITIATIVE - HISTORICAL FLOOD MAPPING



Produced with Water Observation and Information System (WOIS)

*“The capacity of WOIS is enormous, especially considering that it is available as an open source tool and as operational Sentinel data becomes available.”*

*WOIS enabled SAR data processing capability has created new dimension to flood inundation mapping in eastern Nile seasonal flood monitoring. The partial integration of flood mapping products from WOIS into seasonal flood monitoring activities has improved flood forecasting and helped enhance the quality of flood early warning information communicated to communities prone to flood risk.”*

Ephrem Getahun Hailu, Nile Basin Initiative Secretariat

↑ Historical flood mapping providing essential information for mitigation and reduction of flood impacts.

#### Description

This map shows the Historical Flood Mapping Product, which is derived from Envisat ASAR data from 2008.

Cartographic references:  
Projection: GCS\_WGS\_1984  
Datum: WGS\_1984

Source:  
Envisat ASAR Satellite image  
(30/07/2008)  
(22/09/2008)  
Resolution: 300m

#### Legend

- AOI DC21
- Detail of Historical Flood Mapping
- Historic Flood (number flooded) 2007 - 2008
  - 0 - 10
  - 10 - 20
  - 20 - 30
  - 30 - 40
  - 40 - 50
  - permanent
- Built-up Areas
- Streams
- Roads
- Globcover 2009 Hillshade

