



RSS-Hydro

Space-Enabled Modeling of the Niger River to Enhance Regional Water Resources Management (SEMOR)

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The project

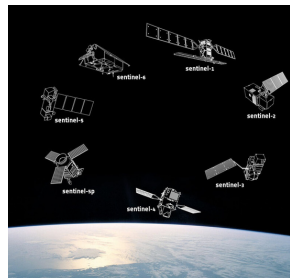
Sustainable **space-based ICT solution - 2-D flood inundation model, river monitoring network** for the Niger River Basin + EO-based **drought** and **flood risk mapping**:

- Open-access satellite Earth Observation (EO) data - *Sentinel-2, Sentinel-3* for **drought patterns** and **drought risks estimation**
- Affordable LiDAR **river sensors** - water levels
- **Drone technologies** - river and floodplain topography for DEM & validation
- **Capacity training workshops** - EO, model, and sensors usage

The project **longevity** is ensured with additional **funding** and the transfer of model + knowledge to the local partner in Niger

Geospatial Technologies

Open-access satellite EO:
SAR, optical, thermal
(ESA Sentinel)



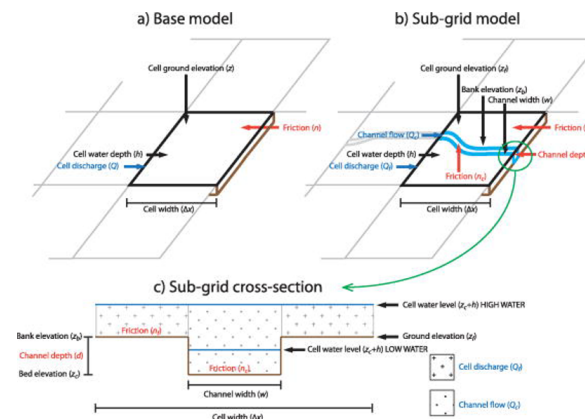
Telemetry based LiDAR-enabled water sensors
(Riverlabs Ltd)



High-resolution modular drones
(RSS-Hydro)



University of Bristol's **LISFLOOD-FP model**
(subgrid version)



Impact



Partners

