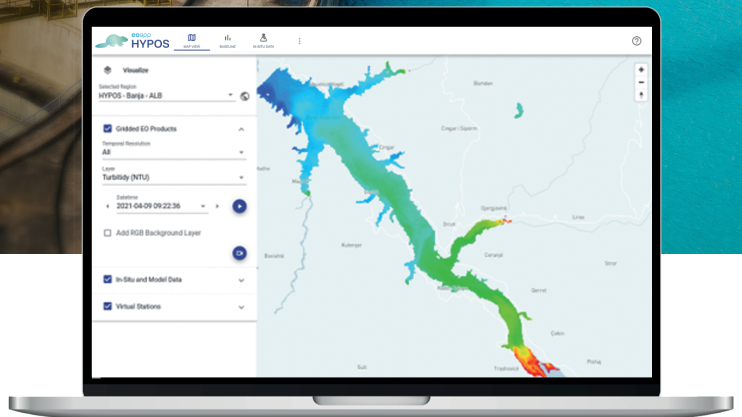


# Your Online Toolbox for Hydropower Planning





HYPOS benefits planning engineers who design outlet structures, set up sediment management plans, evaluate upstream and downstream impacts, plan for activities like flushing or prevent environmental impacts.

With HYPOS they gain quick access to robust and cost efficient water quality data. By combining satellite based with field and modelling data the online toolbox creates digital twins of river systems worldwide. This can simplify assessment and planning routines significantly.



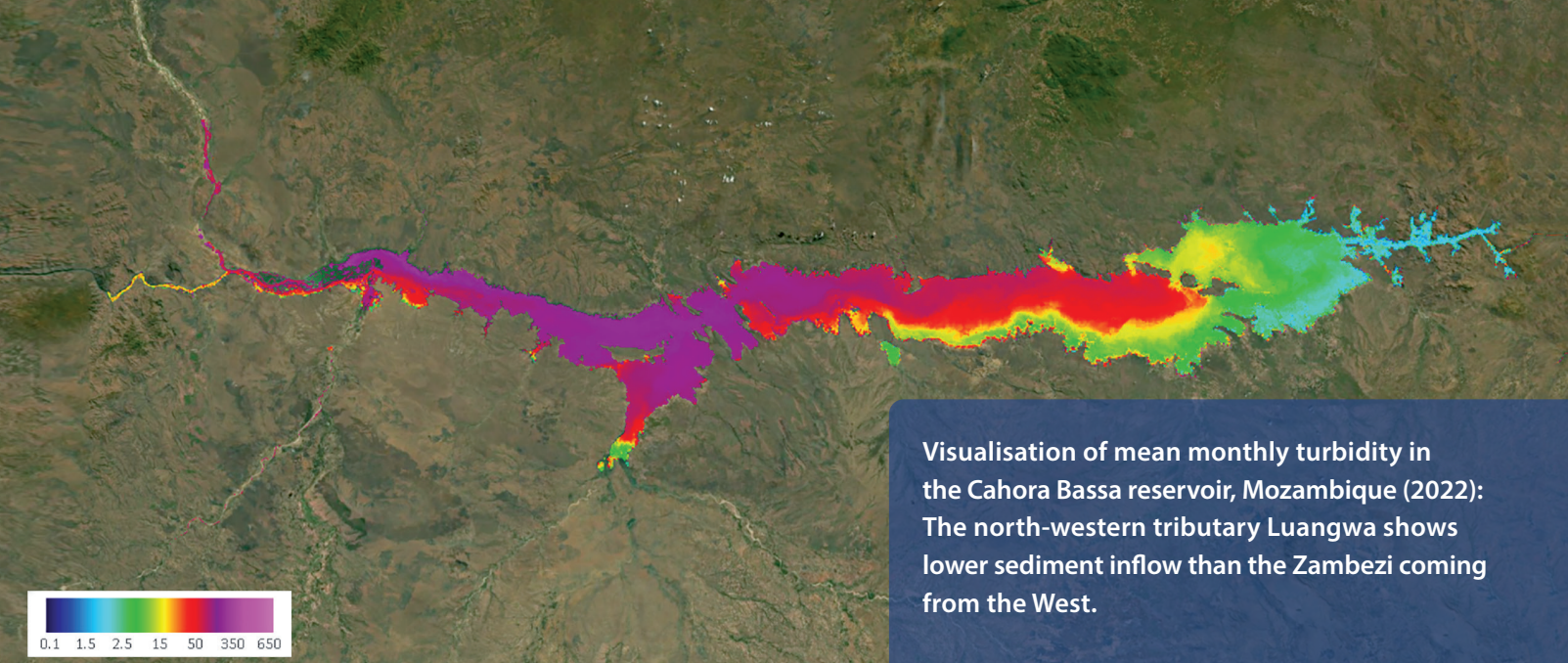
**Understand sediment dynamics in the catchment**

## MAIN APPLICATIONS:

-  **Baseline environmental information based on historical data**
-  **Calculation of sedimentation rates and flows**
-  **Design of release structures / gauging stations**
-  **Environmental reporting and impact assessment**

## KEY BENEFITS

- + Planning data of regions worldwide
- + Overcome knowledge gaps in data-scarce areas
- + Robust data with high temporal and spatial resolution
- + Historical data for +30 years back in time
- + Time savings due to speedy cloud processing and intuitive interface



Visualisation of mean monthly turbidity in the Cahora Bassa reservoir, Mozambique (2022): The north-western tributary Luangwa shows lower sediment inflow than the Zambezi coming from the West.

## KEY TECHNICAL PARAMETERS

### Satellite-derived information

Data are based on EOMAP's renowned MIP system and bio-optical modelling algorithms. In addition, the datasets have been validated in four hydropower sites across Europe.

- + Turbidity [FTU/NTU]
- + Water level [m]
- + Total Suspended Matter [mg/l]
- + Water Surface temperature [°C]
- + Land cover dynamics

### Hydrological model information


HYPOS offers direct access to data based on the global HYPE model (WWH) by the Swedish Meteorological and Hydrological Institute (SMHI). Locally customized models are available upon request.

- + River Discharge [m<sup>3</sup>/s]
- + Precipitation [mm]
- + Sediment Concentration [mg/l]
- + Sediment Load [kg/d]
- + Air Temperature [°C]
- + Soil Moisture [-]

## SERVICE PACKAGES

	Standard	Premium
Spatial Resolution	up to 10 – 30 m	2 m
Temporal Resolution	up to 3x / week	up to daily
Coverage	since 1980s	since 2022
Data availability	NRT	NRT



 Try [hypos.eoapp.de](https://hypos.eoapp.de) and monitor hydropower reservoirs from the comfort of your desk!