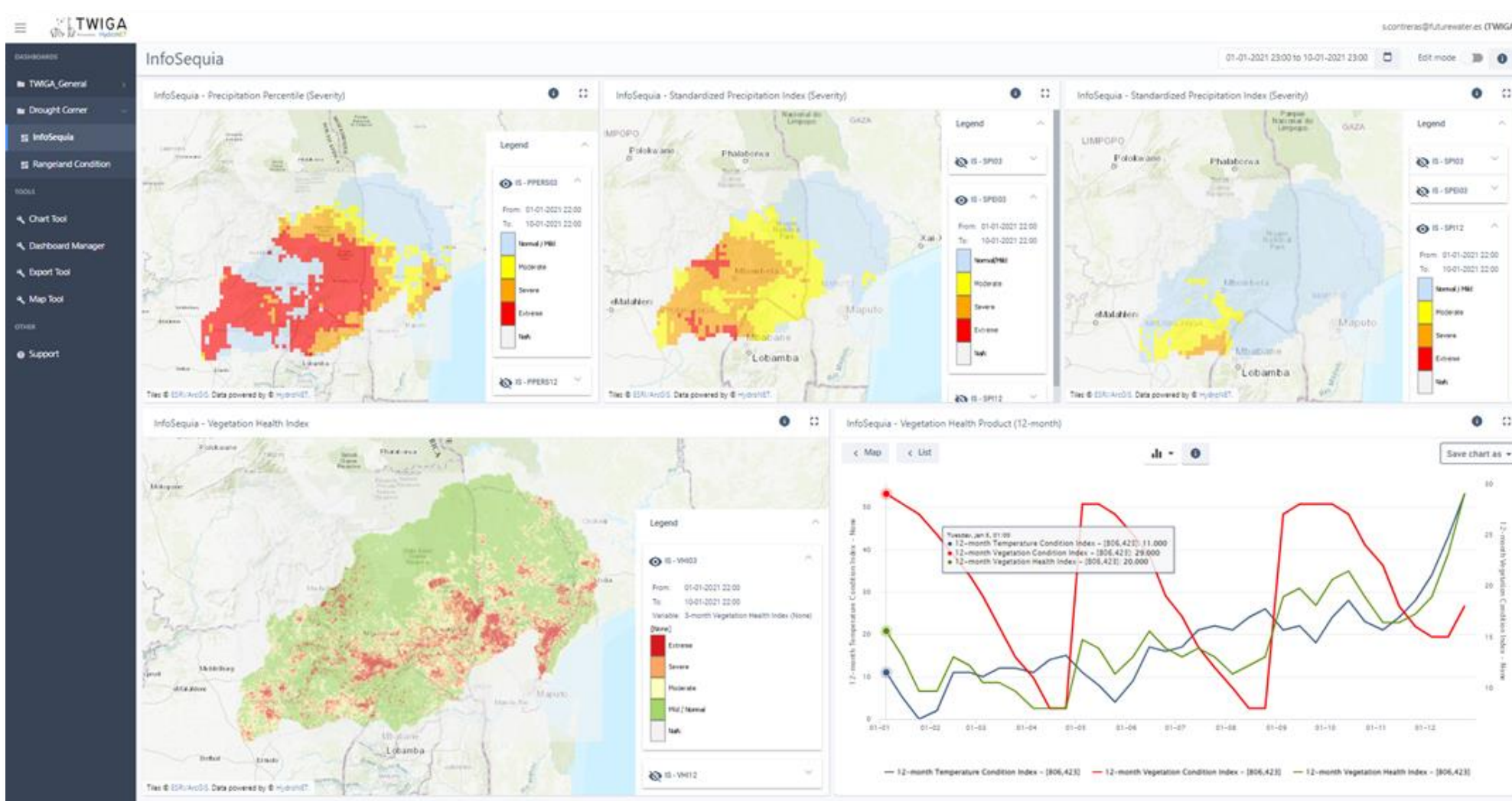
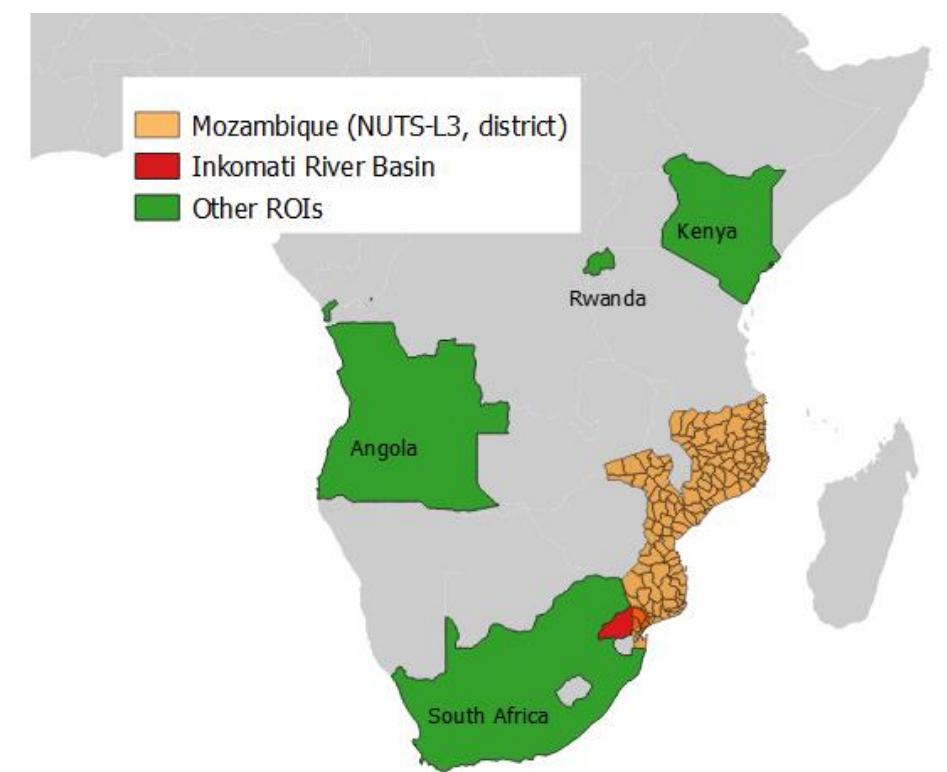


Drought Monitoring and Seasonal Forecasting of Crop and Water Supply Failures

Service Description

InfoSequia is a Drought Early Warning System (DEWS) designed to support drought risk management at the basin and agricultural district levels. This is done through the generation of actionable (impact-based) indicators which result from the effective combination of monitoring, forecasting and viewer capabilities.

Within TWIGA the InfoSequia service was successfully developed for the Incomati River Basin and Mozambique (country level) in Southern Africa and can be viewed in the TWIGA portal as shown below. The service was developed in such a way that upscaling to other regions is relatively simple and can be done upon request.



Data Access

Users can access several InfoSequia products through the TWIGA platform. These products refer to dekadal meteorological drought and vegetation health indices which are monthly delivered at 1, 3, 6 and 12-month aggregation timescales

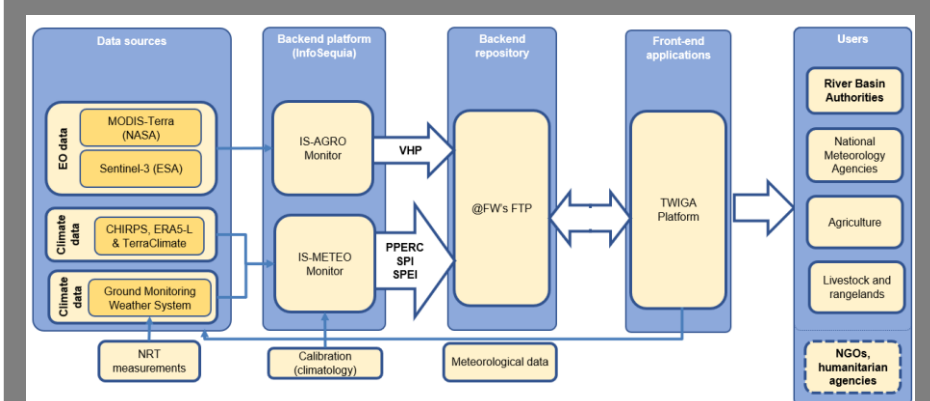
Product	Source**	SRES
PPERC	CHR	0.05 deg
SPI	CHR	
SPEI	CHRxTCL	
VHP*	MOD	250 m

* The VHP product is suite of EO-based Vegetation Health indices which include the VCI, TCI and VHI. ** CHR = CHIRPS; TCL = TerraClimate; MOD = MODIS

Added Value and Benefits

- Timely and contextualized warnings of drought hazard based on the combination of multi-source & multi-sensor EO and climate data
- Seasonal outlooks, monthly updated, of water supply and crop yield failure alerts (Yes/No impact-based forecasting)
- Higher accuracy and better uncertainty characterization using parsimonious and intuitive decision tree models
- Easy access to outputs thr. FTP protocol (netCDF output format), webmapping app (www.infosequia.eu), or SaaS/PaaS solutions (e.g. HydroNET and TWIGA platforms)

Data flow



User segment	Benefits
Water Manag. Authorities	<ul style="list-style-type: none"> ➤ Activation of warning levels and alerts to support contingency plans and measures ➤ Reduction of administrative and communication burdens
Agricultural sector	<ul style="list-style-type: none"> ➤ Adjustment of irrigation quotas and curtailments at the district or province level
Humanitarian-Aid agencies and NGOs	<ul style="list-style-type: none"> ➤ Triggering of ex-ante cash transfers or voucher programmes
Insurance/re-insurance	<ul style="list-style-type: none"> ➤ Optimal allocation of human resources ➤ Early detection of financial and insurance needs

Service Synergies

In TWIGA, InfoSequia can be used in combination with other operational services to support climate risk assessments in farming agro- and water resources systems.

- Map Your Crop
- International Water Control Room
- Heat stress indices