Development of Nile Basin Data and Analytic Services Platform (NB-DAS)

NILE BASIN INITIATIVE
INITIATIVE DU BASSIN DU NIL

Hackathon #1

September 3rd, 2025

BRL INGÉNIERIE

WE consult

Agenda

Agenda

Time	Item	By
10:00 AM – 10:10 AM	Arrival of participants	ALL
10:10 AM – 10:30 AM	Opening words	NBI DED
10:30 AM – 10:45 AM	Overview & demo of the NB-DAS	BRLi
10:45 AM – 11:00 AM	Rules of the hackathon	BRLi
11:00 AM – 11:20 AM	Q&A	ALL
11:20 AM – 11:30 AM	Closing words	NBI

Demo of the NB-DAS

What is NB-DAS ?

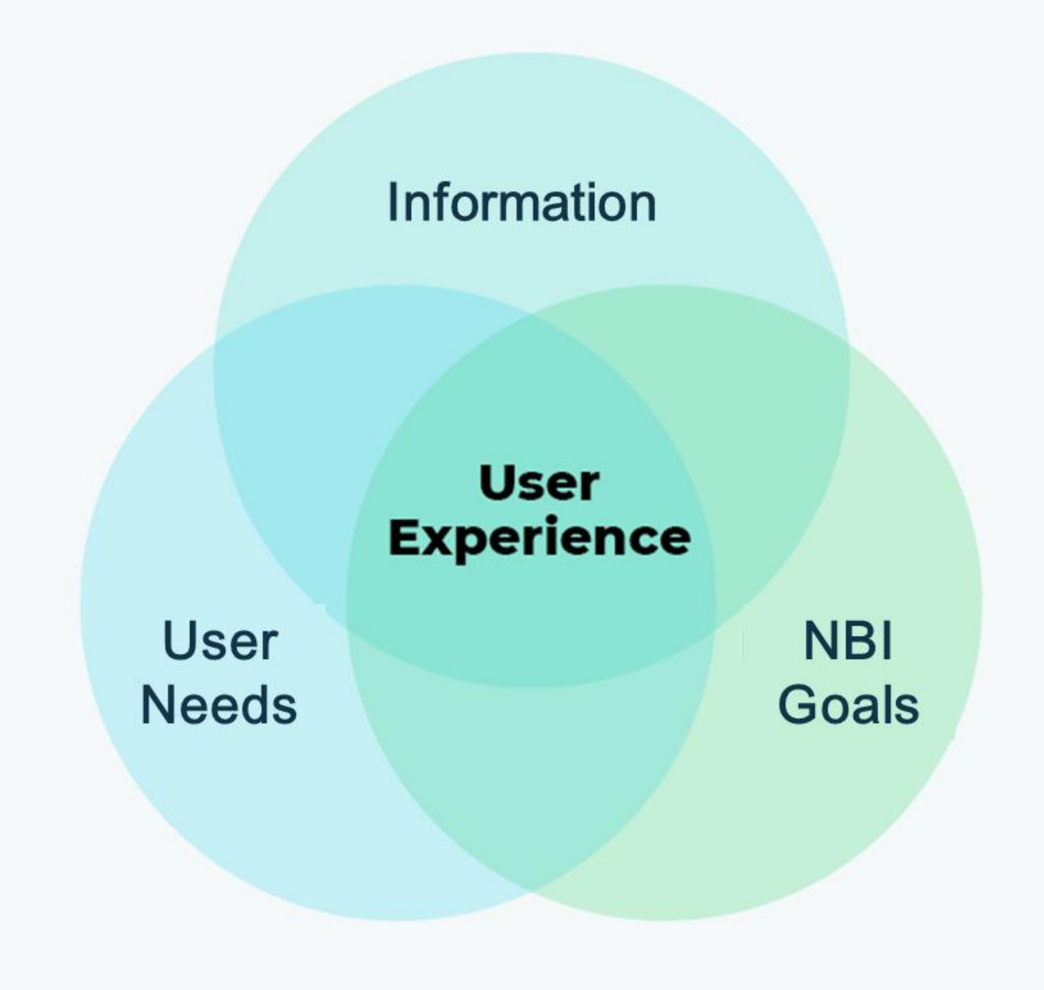
DATA + NEEDS = SERVICES

- The Nile Basin Data and Analytics Services (NB-DAS) Platform is a regional cloud-based platform over which the Nile Basin Initiative (NBI) delivers **data and analytic services to its member states and in the public domain**.

- The NB-DAS leverages **climate resilient water resources management and development**. The NB-DAS platform is an **open and public domain** to support wide use and continuously expand leveraging the growing pool of data and analytics.

An end-user centric approach

- **NB-DAS** is based on what the **end users** want to do with the **information** that is easily accessed by them, taking into account the **NBI goals** for enhancing the regional cooperation



Stakeholders consultation

Kinshasa, D.R. Congo – 29-30 May 2023 © Nile-SEC

Kampala, Uganda – 13-14 June 2023 © Nile-SEC

Addis, Ethiopia – 5-6 June 2023 © Nile-SEC

Juba, South Sudan – 1-2 June 2023 © Nile-SEC

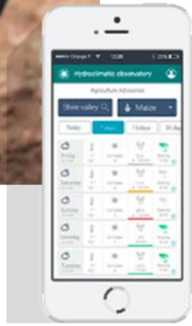
Kigali, Rwanda – 8-9 June 2023 © Nile-SEC

2 user profiles | 2 access modes

- The "**local communities / public in general** " profile mainly via mobile/smartphone
- The "**national / regional entities**" profile – member states, governmental agencies, researchers and academia, relevant stakeholders, private sector, NGO – mainly via desktop/laptop

Local communities

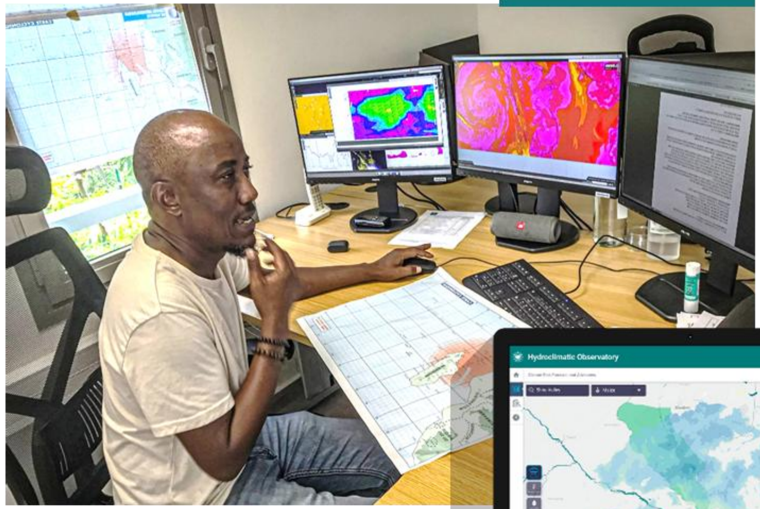
Climate Forecast

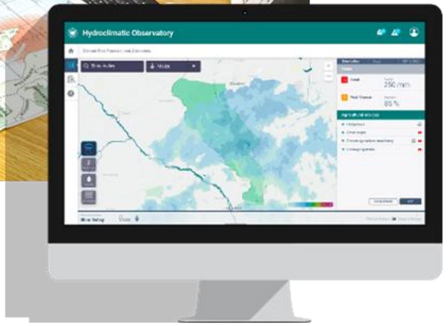


Mobile / Smartphone

National entities

Thematics





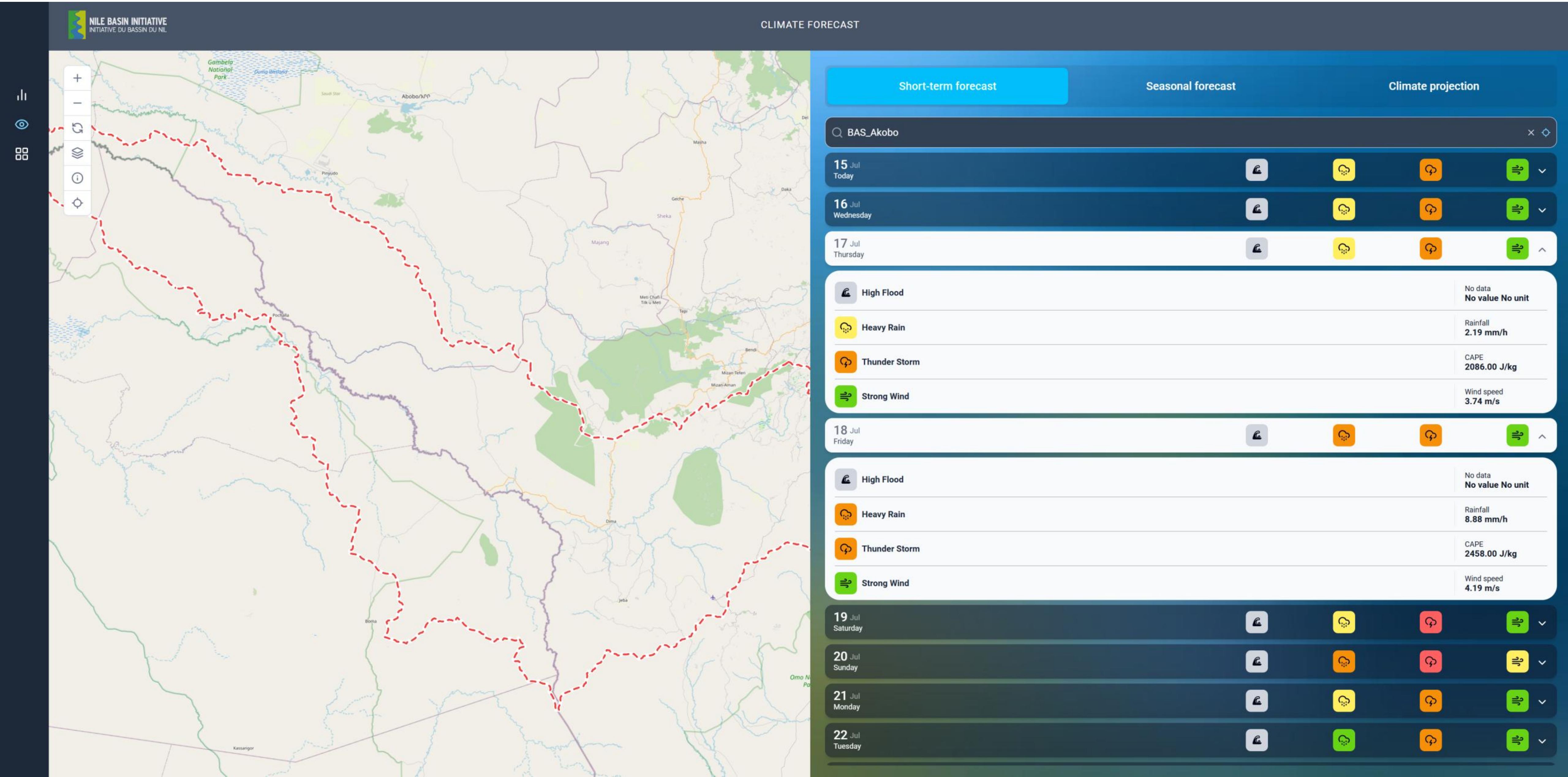
Desktop / Laptop

Climate Forecast mode

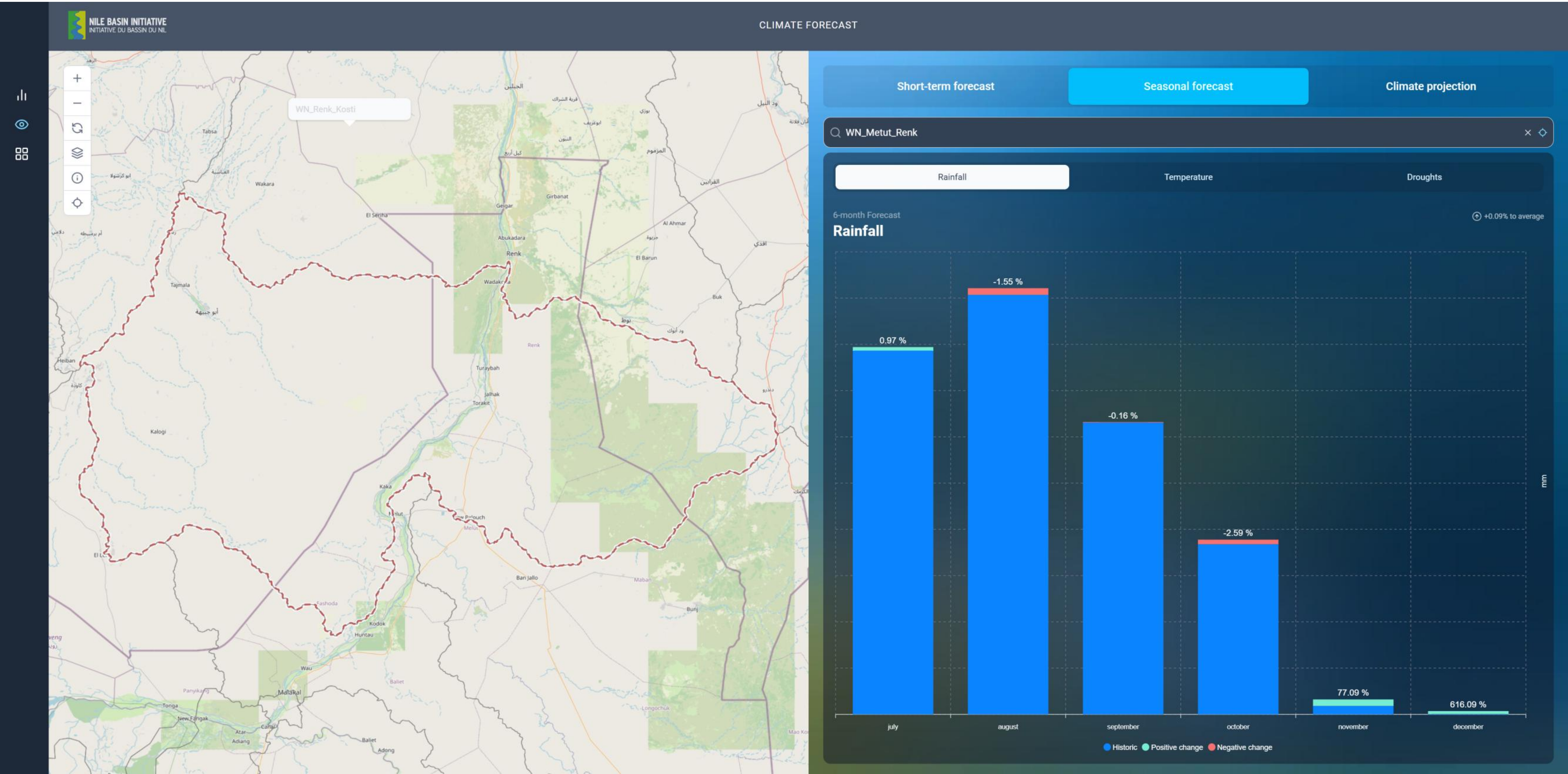
The Climate Forecast mode would present **3 use cases:**

- **Short-term forecast:** 10-day forecasts for the risks of flood, heavy rain, thunderstorm, and landslides.
- **Seasonal forecast:** 6-month forecasts for precipitation, temperature, meteorological, agricultural, hydrological droughts.
- **Climate projection:** precipitation and temperature anomalies at time horizons 2040-2060-2080 and 2100.

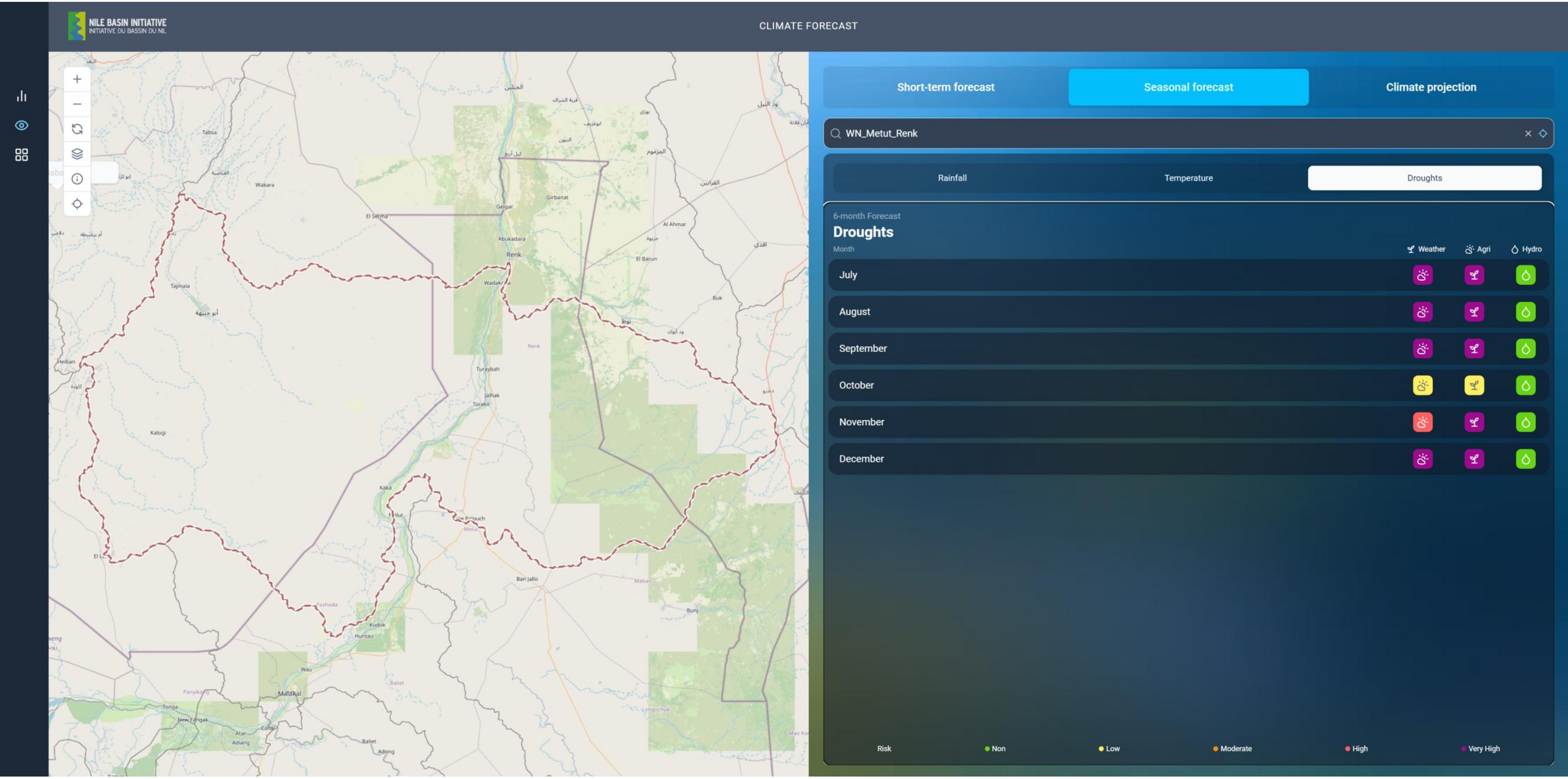
Climate Forecast Short-term forecast



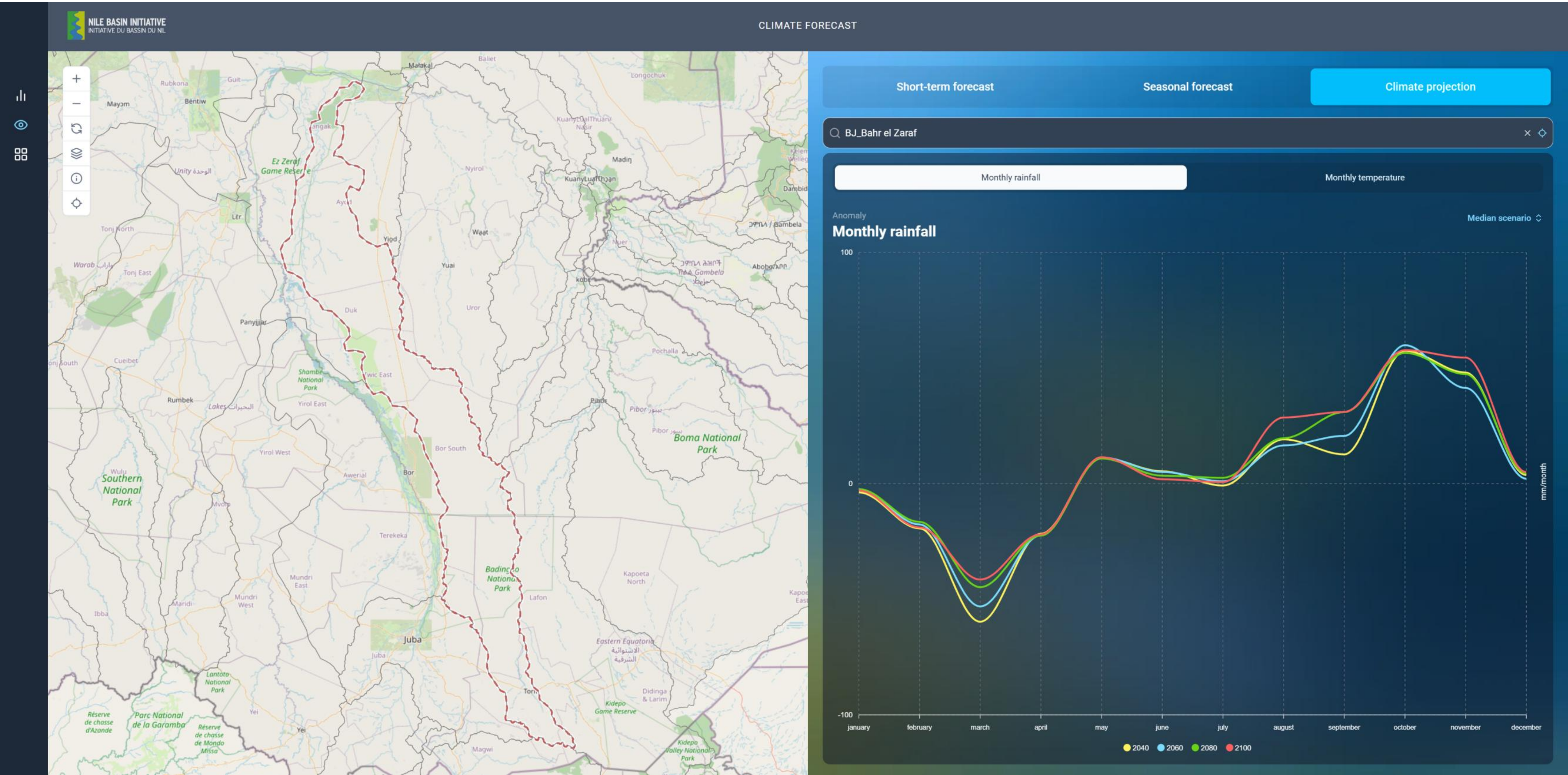
Overwatch Seasonal forecast (rainfall)



Overwatch Seasonal forecast (droughts)

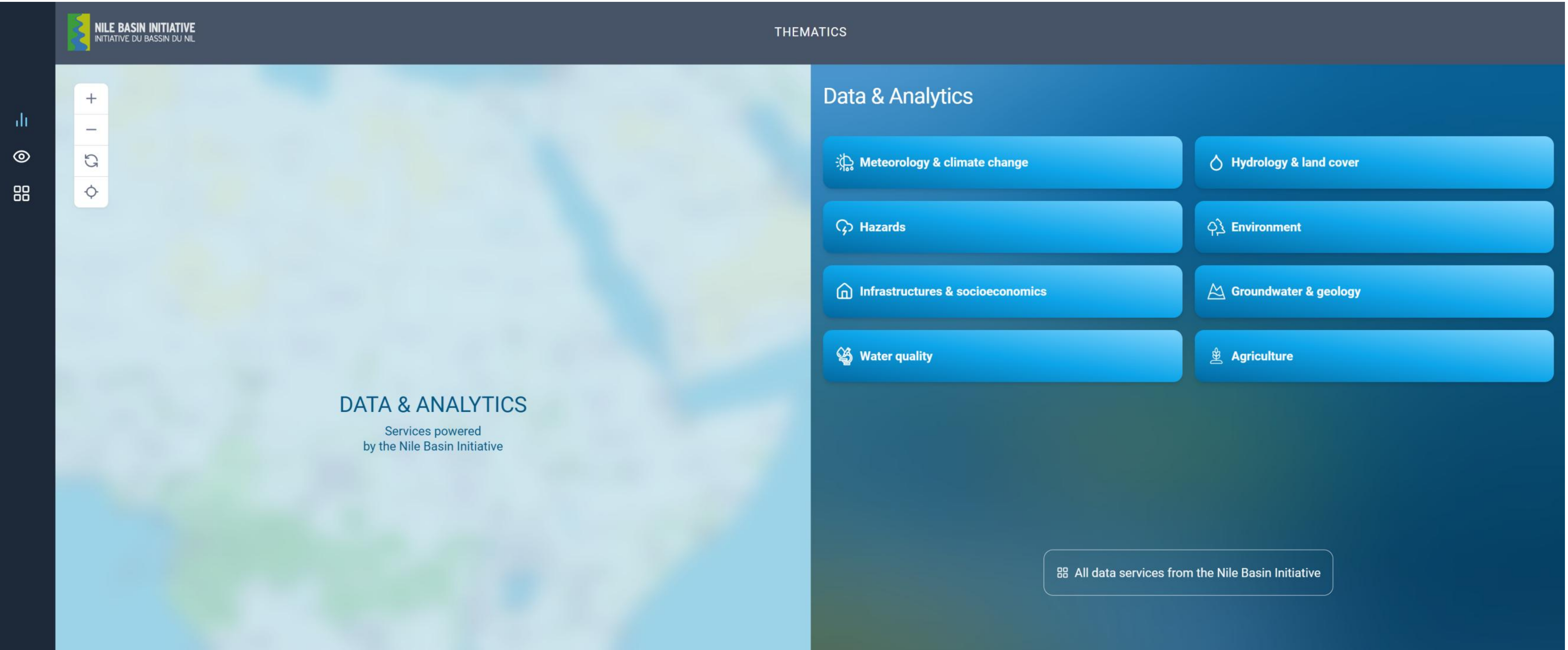


Overwatch Climate projection

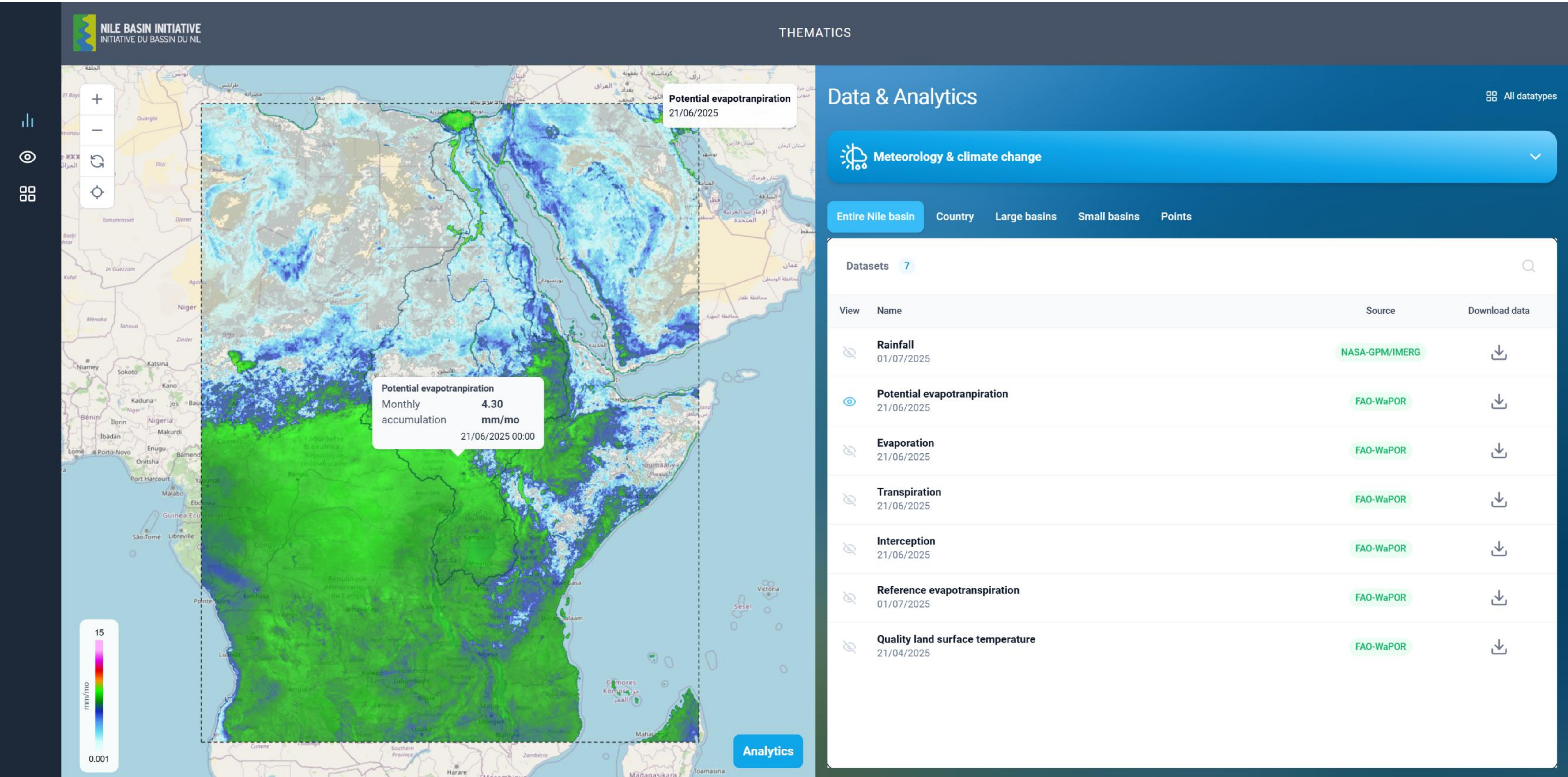


Thematics mode

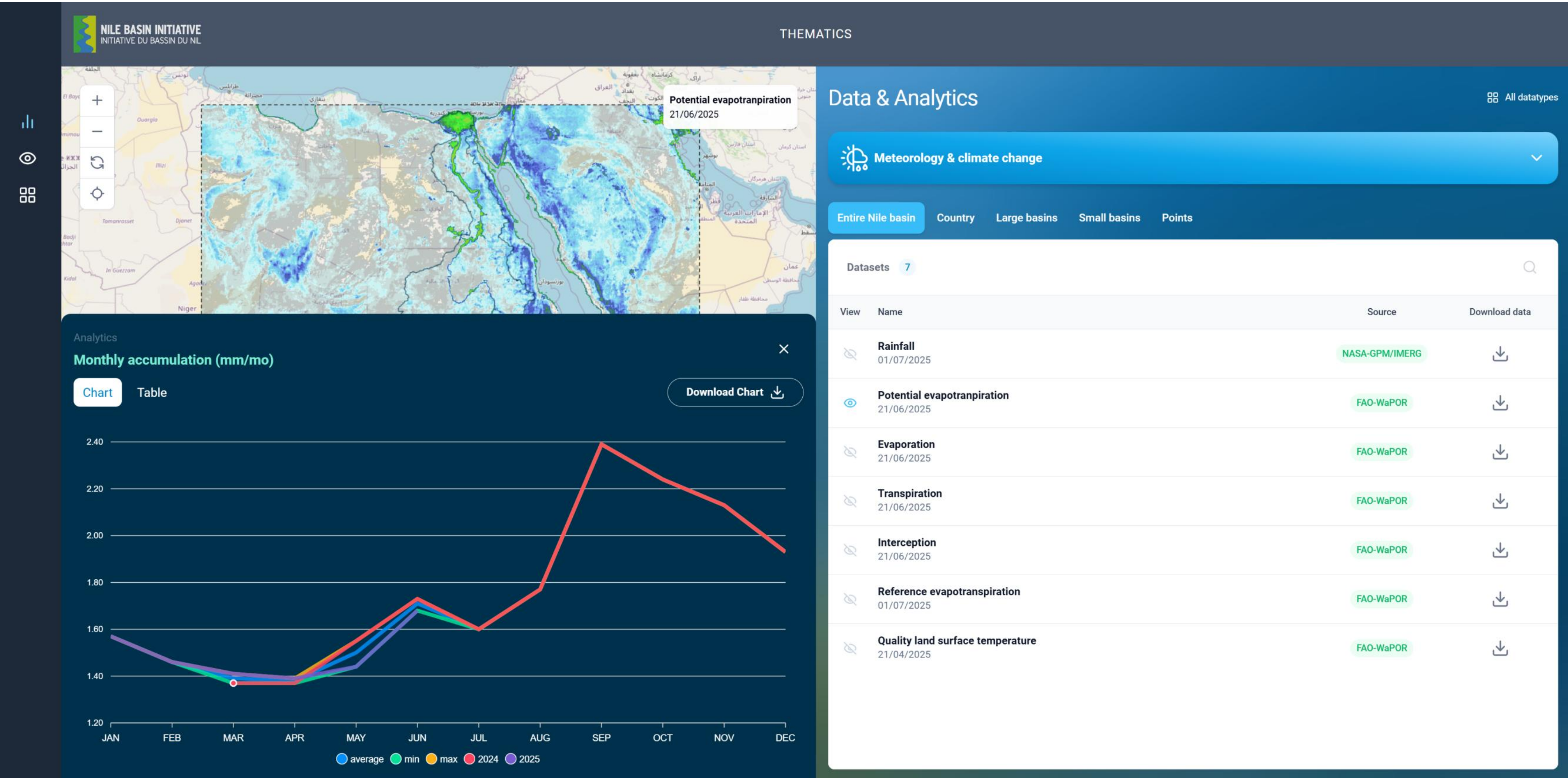
The Thematics mode would present **8 use cases**:



Thematics map & datasets



Thematics analytics (chart)



Thematics analytics (table)

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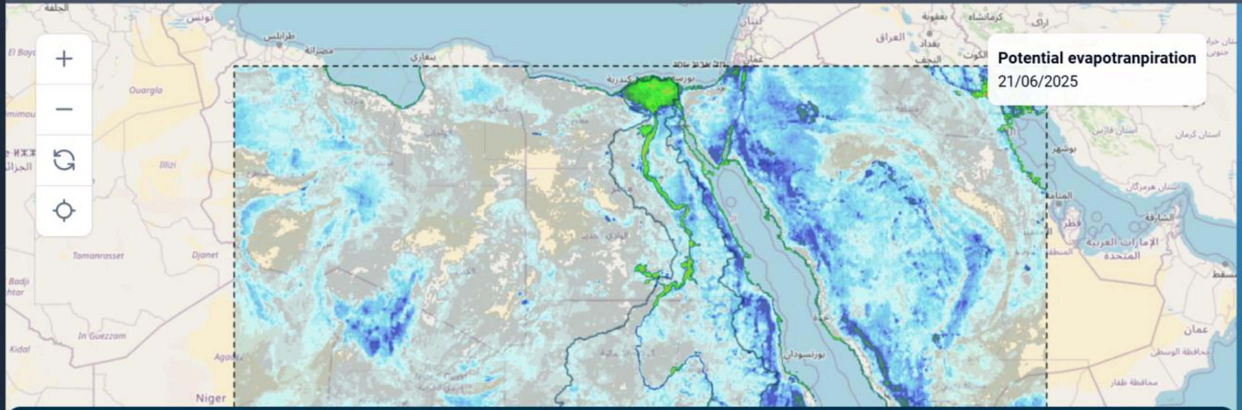
THEMATICS



Analytics

Monthly accumulation (mm/mo)

Chart | Table | Download CSV

mm/mo	Year	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.
Average	1.65	1.57	1.46	1.39	1.38	1.50	1.71	1.60	1.77	2.39	2.24
Min	1.49	1.57	1.46	1.37	1.37	1.44	1.68	1.60	1.77	2.39	2.24
Max	1.81	1.57	1.46	1.41	1.39	1.55	1.73	1.60	1.77	2.39	2.24
2024	1.81	0.00	0.00	1.37	1.37	1.55	1.73	1.60	1.77	2.39	2.24
2025	1.49	1.57	1.46	1.41	1.39	1.44	1.68	0.00	0.00	0.00	0.00

Data & Analytics

All datatypes

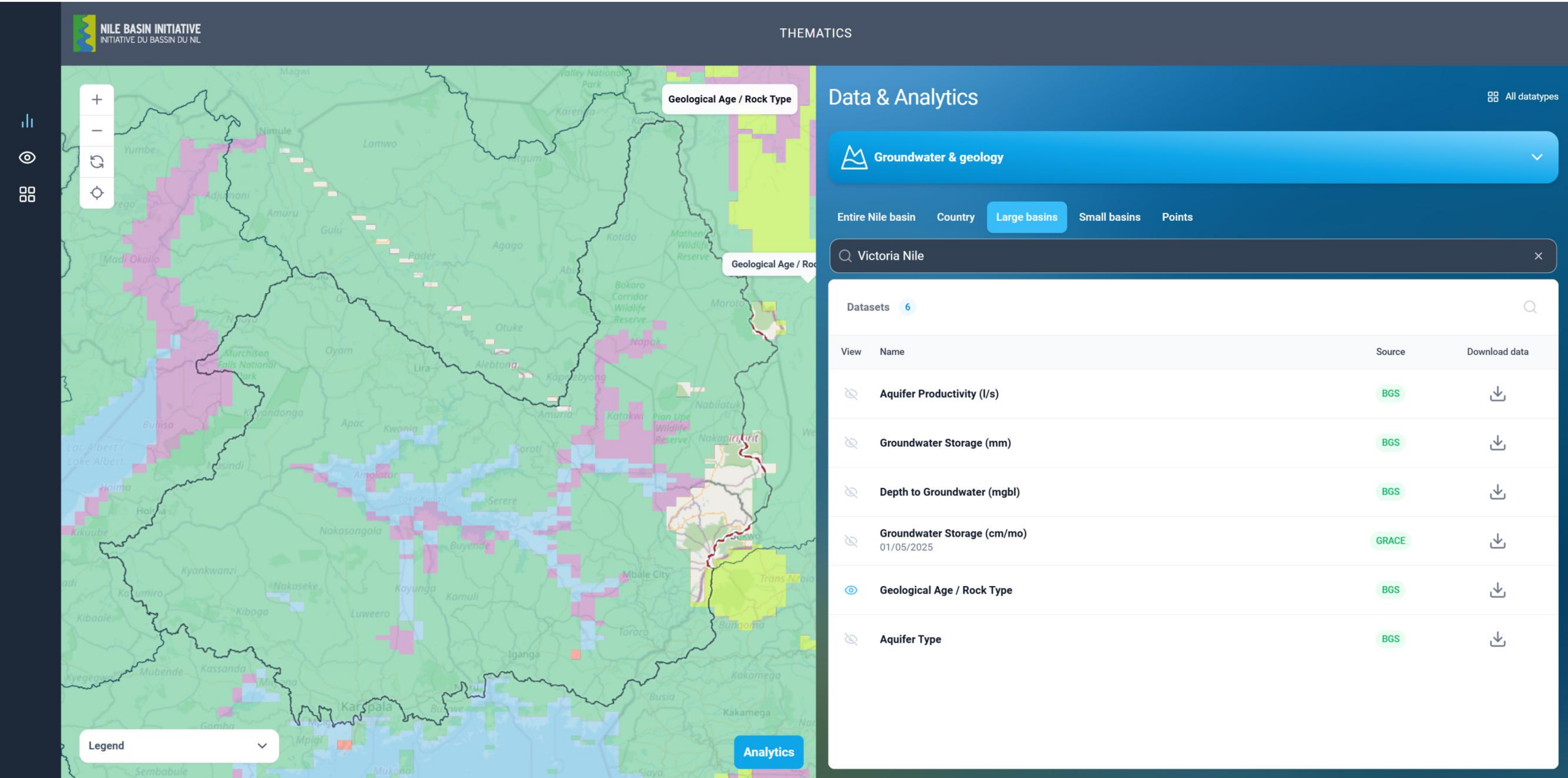
Meteorology & climate change

Entire Nile basin | Country | Large basins | Small basins | Points

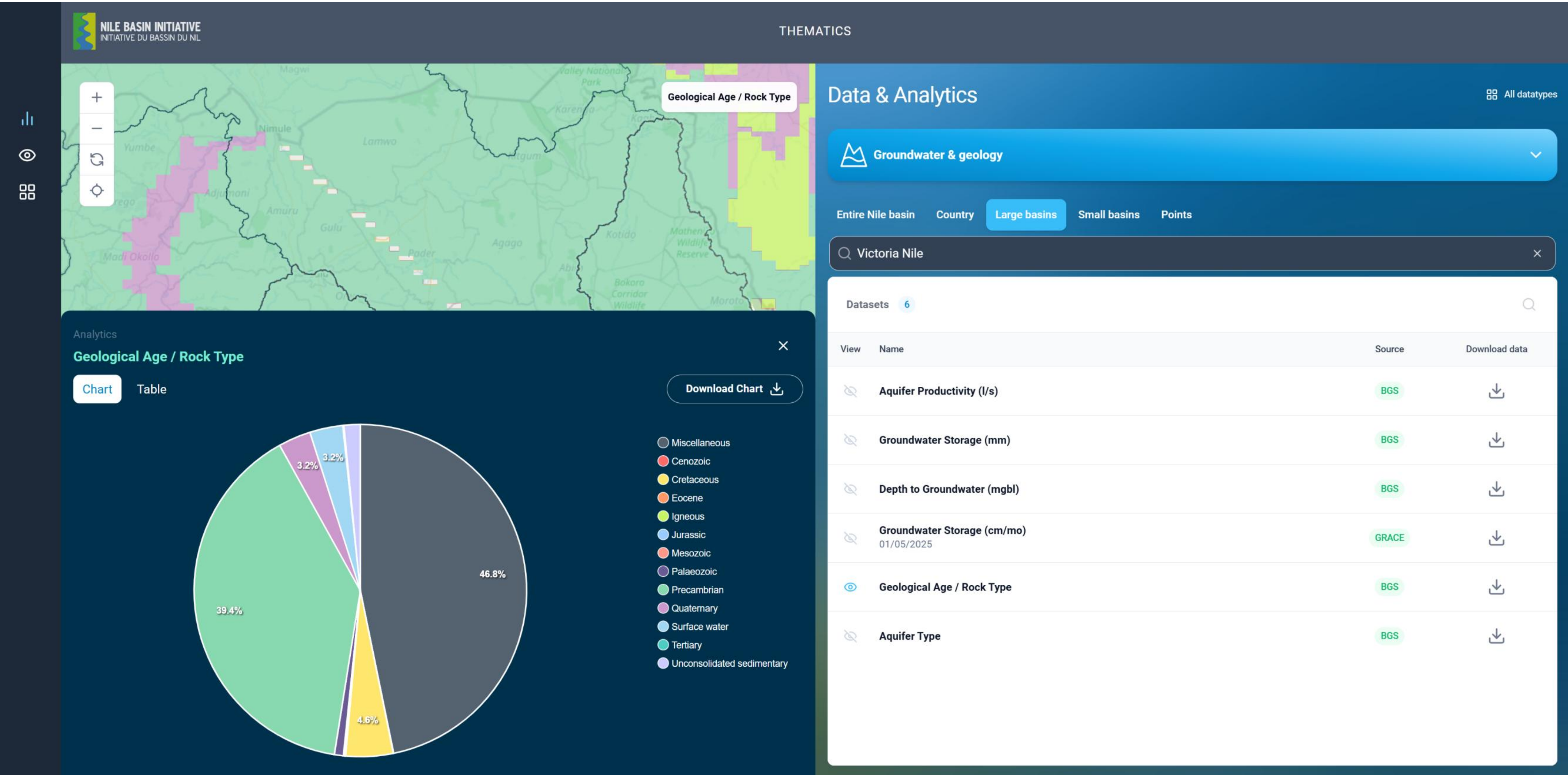
Datasets 7

View	Name	Source	Download data
	Rainfall 01/07/2025	NASA-GPM/IMERG	
	Potential evapotranpiration 21/06/2025	FAO-WaPOR	
	Evaporation 21/06/2025	FAO-WaPOR	
	Transpiration 21/06/2025	FAO-WaPOR	
	Interception 21/06/2025	FAO-WaPOR	
	Reference evapotranspiration 01/07/2025	FAO-WaPOR	
	Quality land surface temperature 21/04/2025	FAO-WaPOR	

Thematics map & datasets



Thematics analytics (chart)



Hackathon rules

Hackathon rules

Challenge: "PRESENT YOUR USE CASE OF THE NB-DAS"

Calendar:

- 3 September: opening session with demo of the NB-DAS & explanation of the rules
- 3 to 10 September: submission period of the use cases by the attendees
- 11 to 14 September: evaluation period of the use cases with public vote
- 16 September: presentation of top 10 use cases & award ceremony

Format: two-slide presentation

Awards:

Rank	Use case published in NBI newsletter	Use cas published on NBI website	Interview broadcast on NBI social network
#1	x	x	x
#2	x	x	
#3	x		

[Title of the use case]
by [Name] from [Organization]

As [occupation],

I need to [expression of your need]

for [domain of use]

[PICTURE 1]

[PICTURE 2]

[Title of the use case]
by [Name] from [Organization]

Thanks to NB-DAS,

I can [explanation of what you can do]

that will allows me to [benefits provided by NB-DAS].

[SCREENCAPS 1]

[SCREENCAPS 2]

Links

- **Access to NB-DAS:** https://overwatch.nb-das.nilebasin.org
- **Link to download the template:** https://dl.brl.fr/wj3fcp
- **Email to submit your use case:** nbiwebinar@nilebasin.org
- **NBI webpage with rules and for public votes:** *[not yet open]*
- **Any questions:** stephane.delichere@brl.fr & romain.vetrano@brl.fr

Thanks for your attention

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Hackathon #2

September 16th, 2025

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