

Geoguard

Monitoring Water Security from Space

**IPU Science for Peace Parliamentary meeting,
Vietnam, 11-13 September 2023
Water security and insecurity: Rebuilding
peaceful coexistence with science**



Our role within the UN system

We are the DPPA's innovation
engine/ "thinktank" supporting
UN Special Political Missions
and country teams.



We leverage
emerging
technology
to support conflict
mitigation &
peacebuilding
efforts



- methods
- software
- hardware
- algorithms
- data visualization
- analytical systems
- processing architectures

Leveraging Geospatial Data



High resolution Imagery

- Expensive
- Specific AOI
- Private data ownership
- Snapshots in time

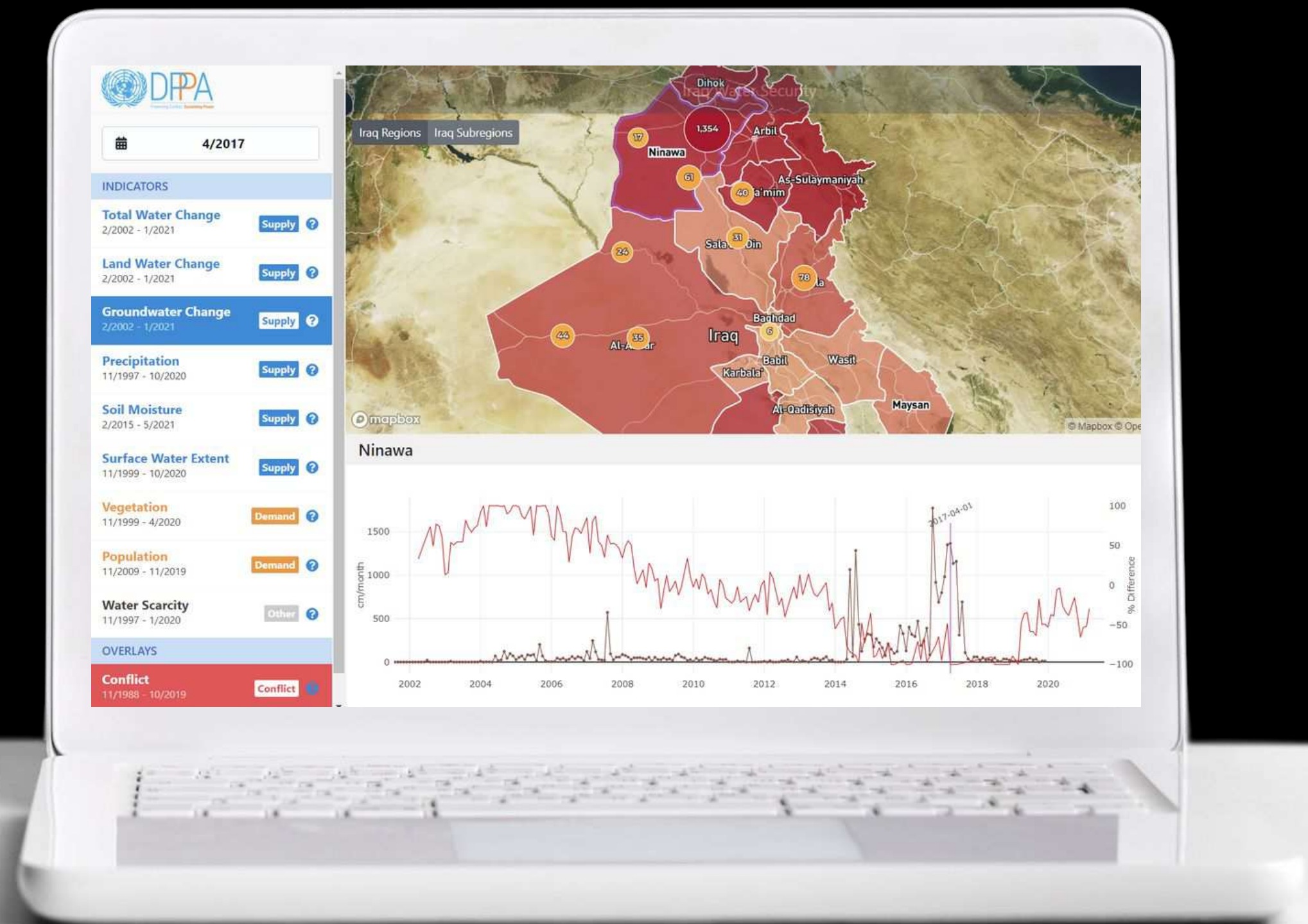


Open-source data

- Free
- Global coverage
- Openly available
- Multidecadal observational horizon

What is Geoguard?

Geospatial tool for data-driven decision-making



Features

Built with usability in mind for technical
& non-technical analysis

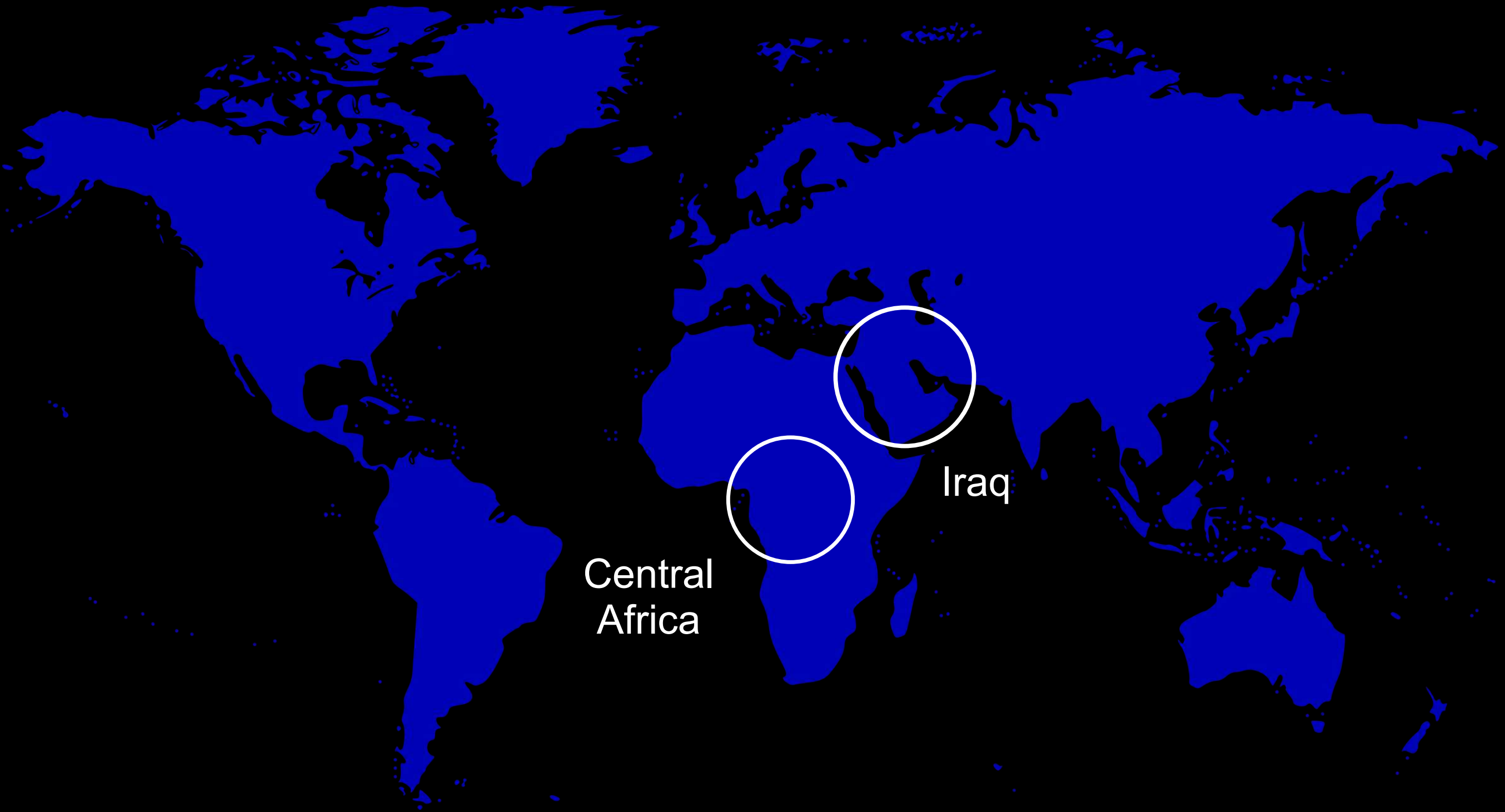
Historical graph

Timeline

Map



Geoguard's geographic coverage



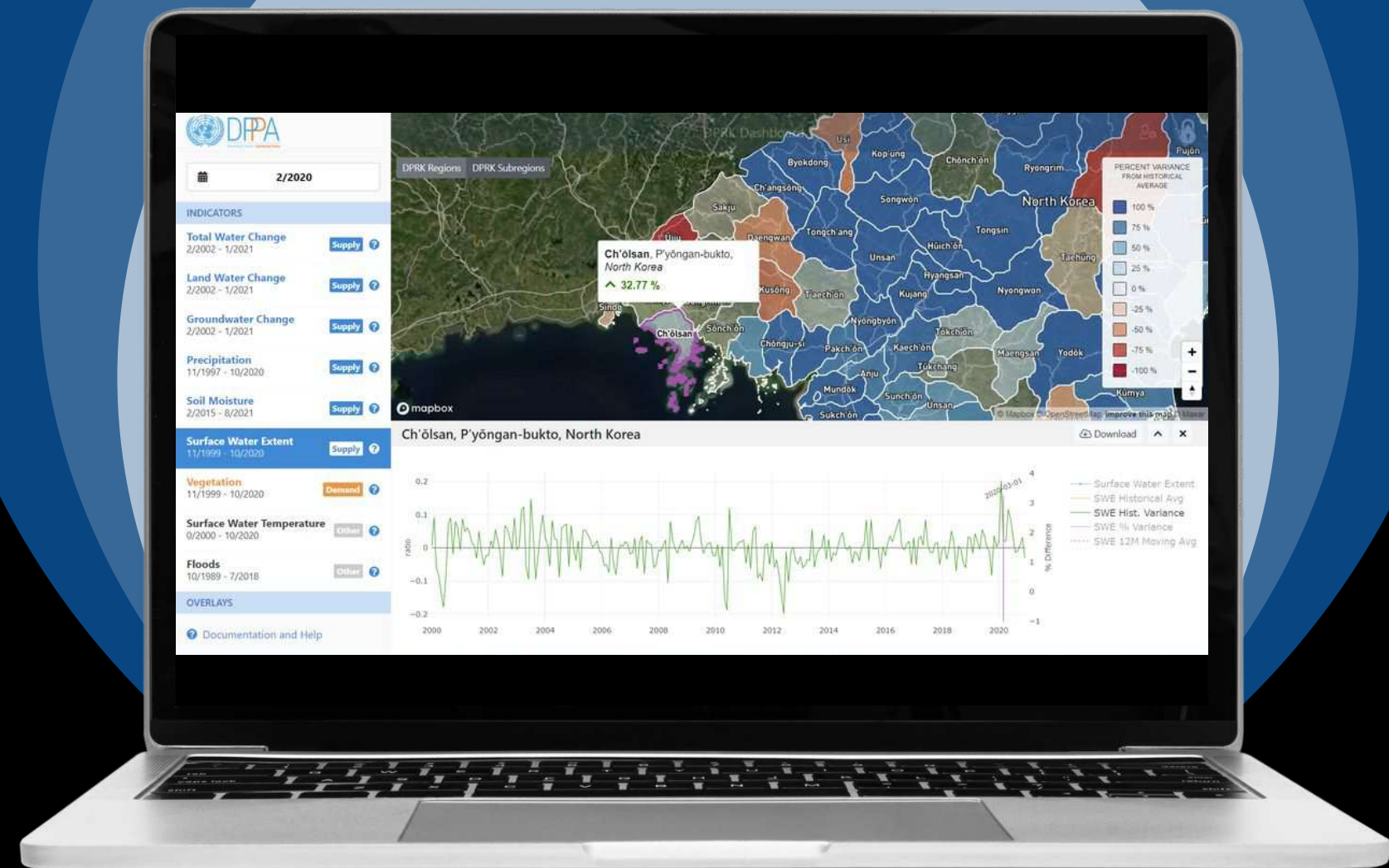
Multilateral Impact Potential

Geoguard provides valuable data on some of the most data-scarce, climate-vulnerable regions of the world.

GLOBAL SCIENCE & CLIMATE
ACTION

TRANSBOUNDAR
Y

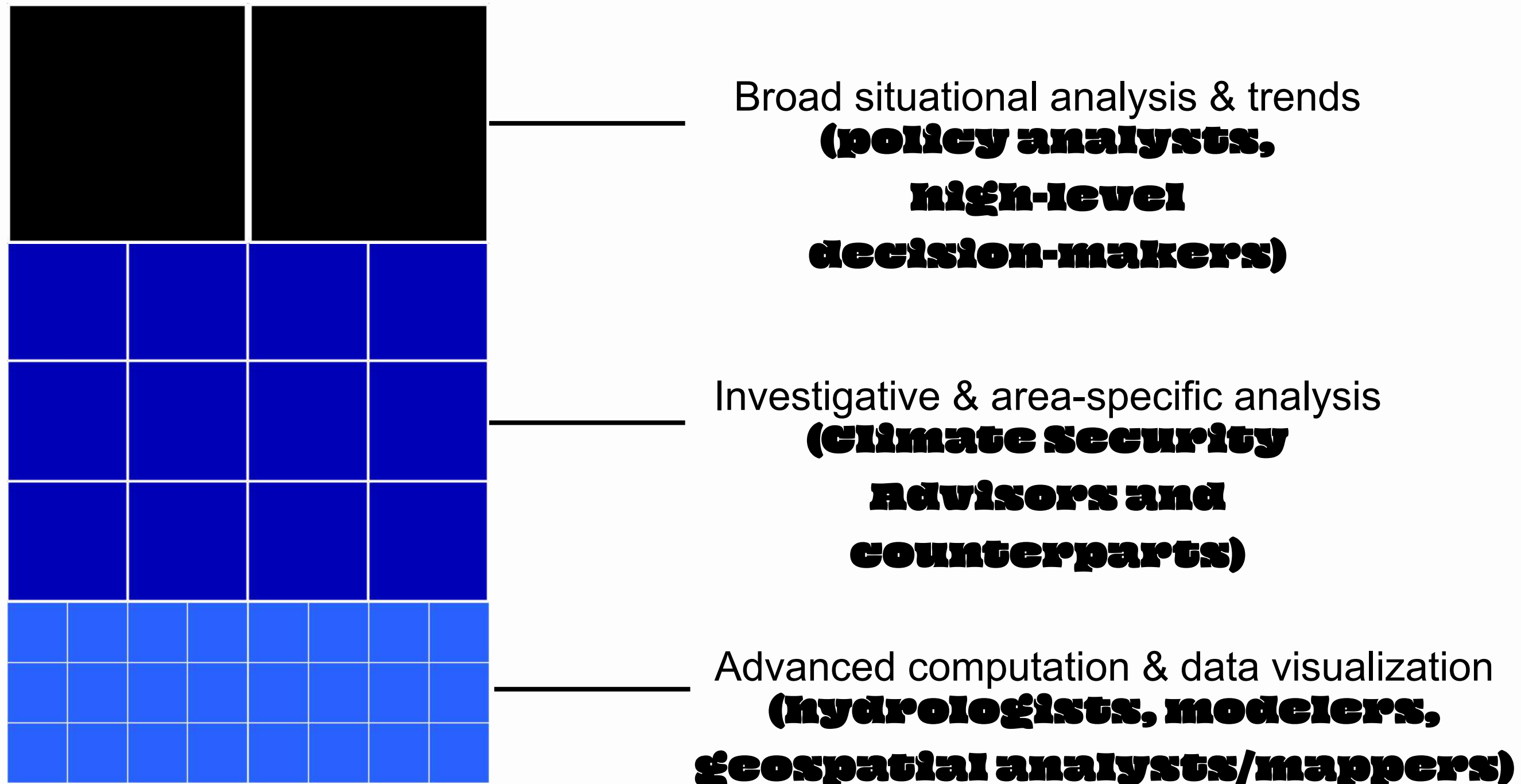
SUBNATIONAL



Use-Cases

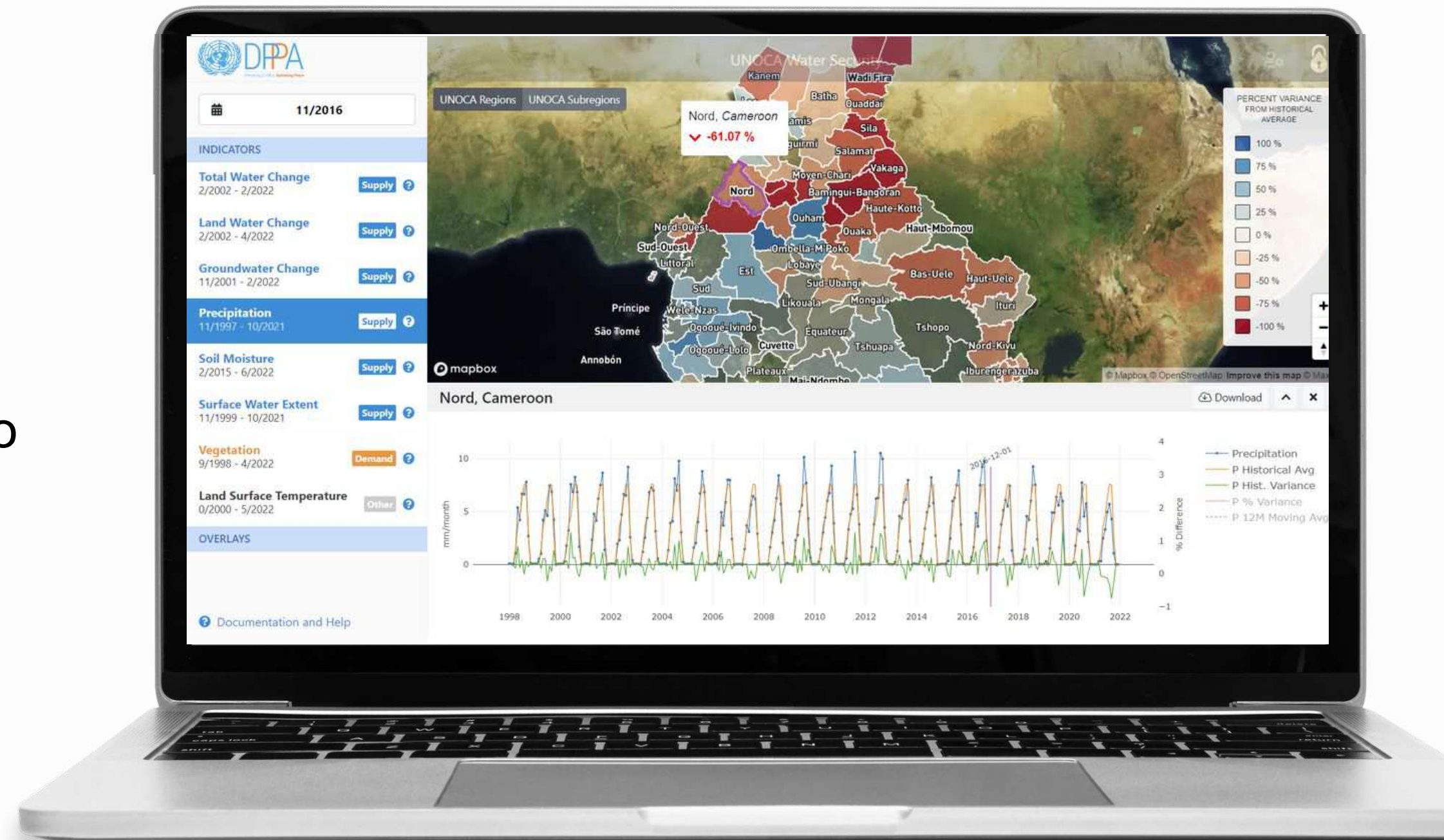


Optimal for high-level to granular insight



The dashboard supports the impact analysis of:

- 01 Policies & Programmes
- 02 Natural Disasters & Environmental Risks
- 03 Critical regions like the Congo Basin and Lake Chad Basin
- 04 Transboundary resource management

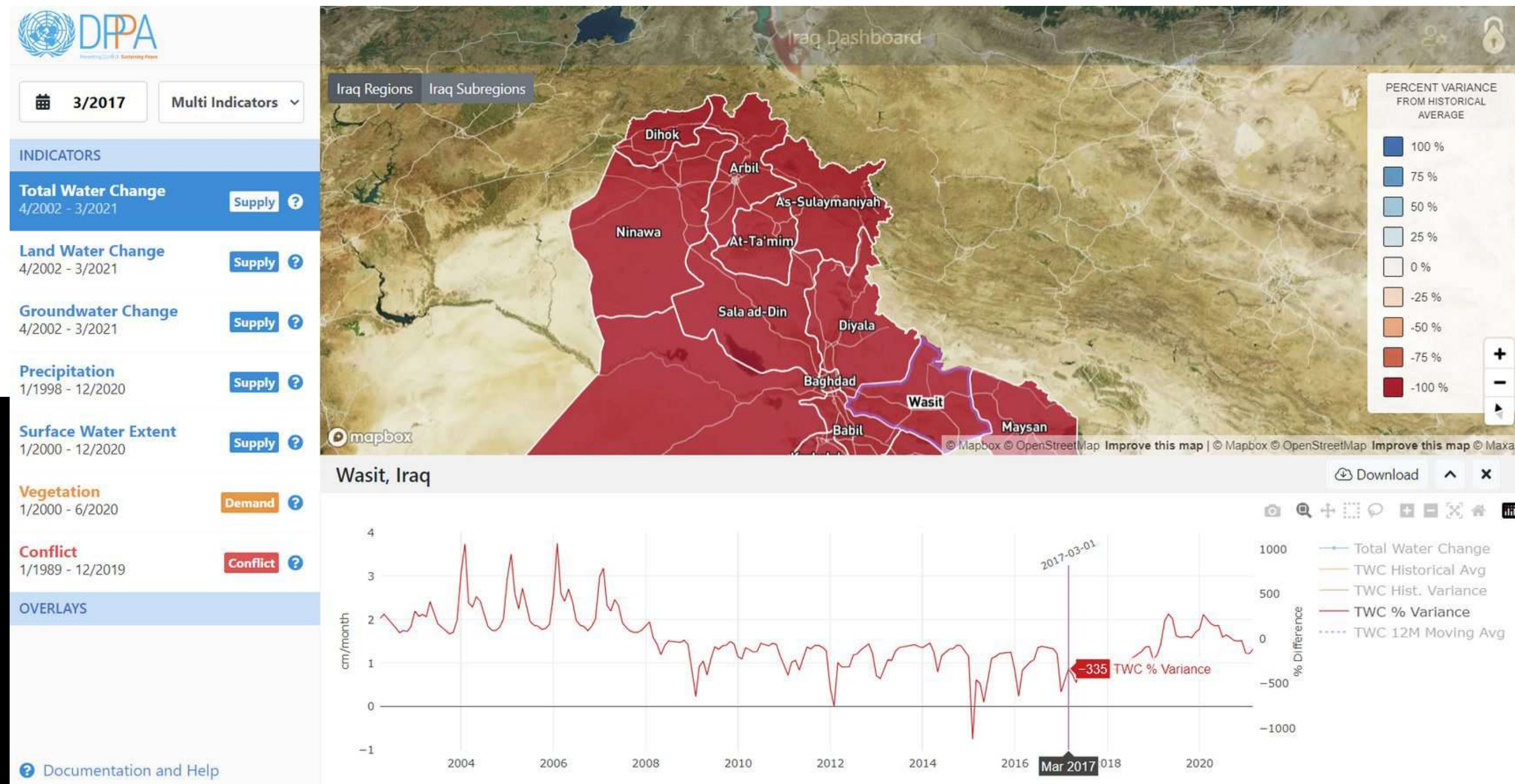


Case Study 1: Interprovincial Water Trends

Dhi Qar & Wasit, IRAQ

“Dhi Qar province, for example, has accused neighboring Wasit province of not respecting water shares, undermining the livelihoods of Dhi Qar’s agriculture dependent population.”

Water Peace and Security Report: Water challenges and conflict dynamics in Southern Iraq
Published February 2022
(<https://waterpeacesecurity.org/files/208>)



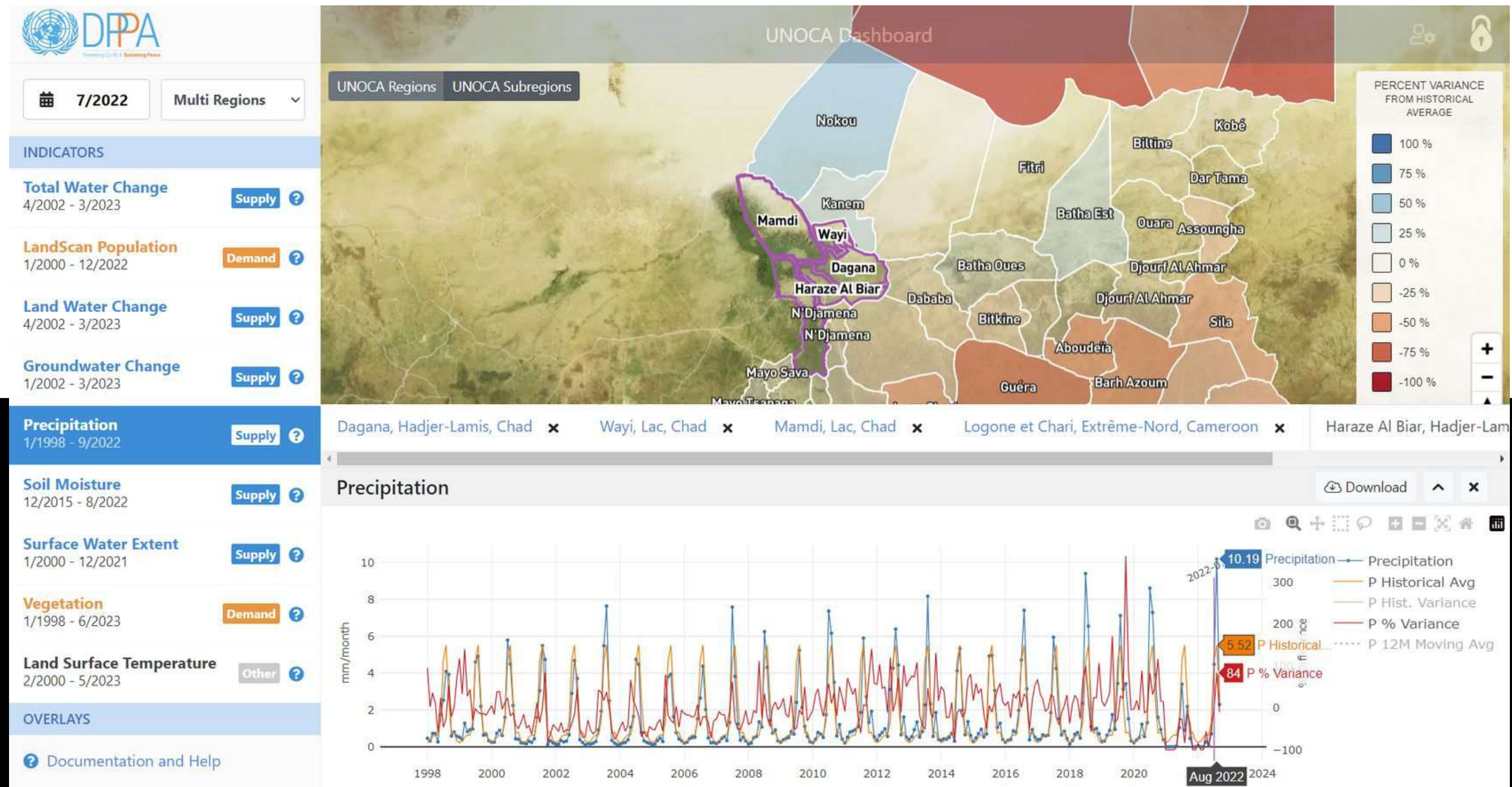
Wasit total water levels decreased over a 10-year horizon but began increasing around 2019

Case Study 2: Critical Water Basins

Lake Chad Basin, CENTRAL AFRICA

“Interlocutors noted that last year (2022), the rainy season in Cameroon and Chad were unusually intense and prolonged, leading to floods in areas already affected by violence, thus triggering secondary displacements. They also indicated that last year displacement in the context of floods has far exceeded that of conflict and violence”

**UNOCHA-UNOWAS Working-Level Mission to the Lake Chad Basin Countries (Cameroon and Chad): Translating climate security analysis into peacebuilding action
Published [internal] July 2022**



Precipitation increases in Lake Chad subregions contributed to displacement in 2022

Contact Information

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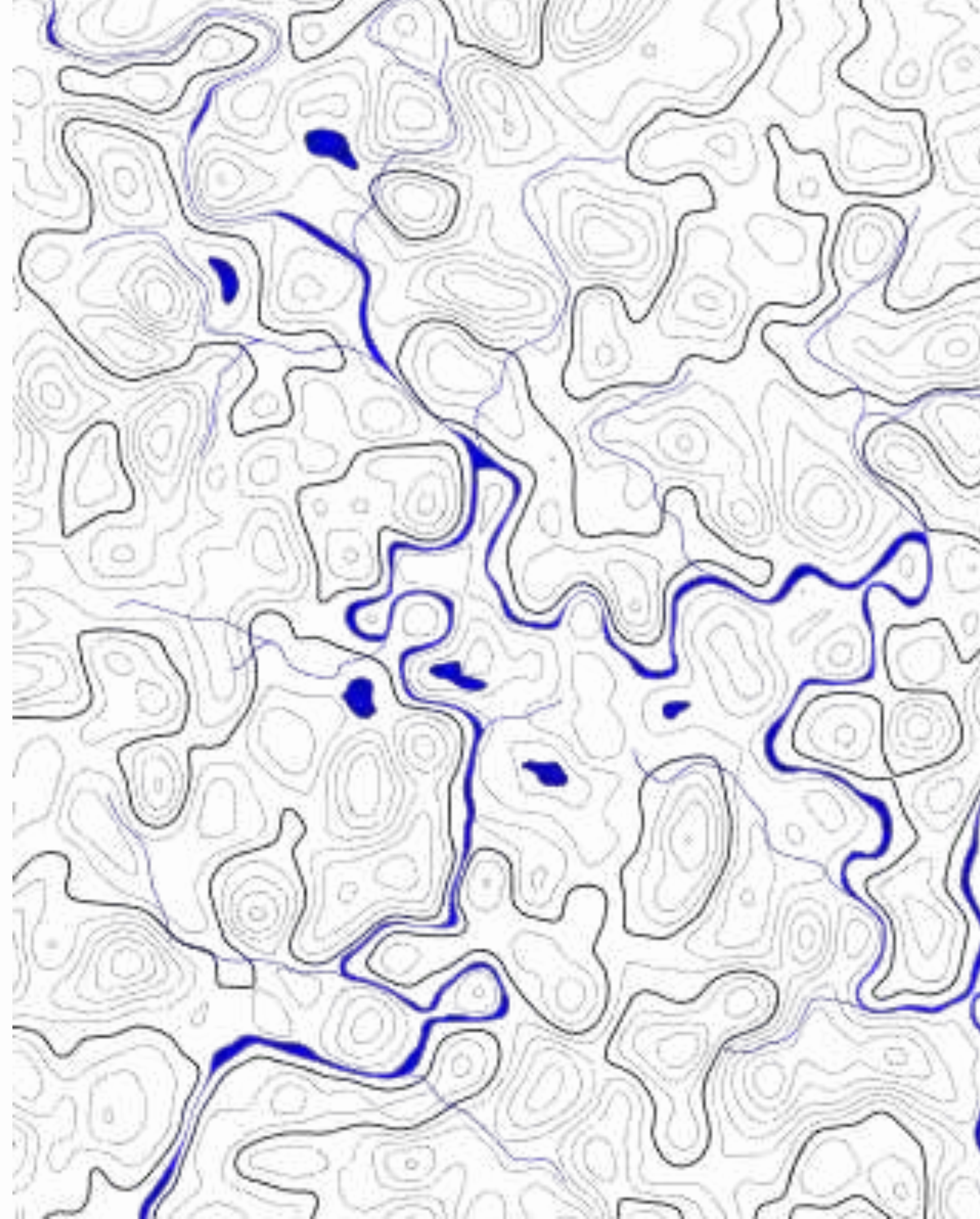
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[UN DPPA Innovation Cell](#)

futuringpeace.org

<https://vimeo.com/716424108>

**Reach out for follow-on
demonstrations,
questions, suggestions,**



Explore Geoguard

Using this temporary access log in

<https://unoca.geoguard.org>

User: ipudemo@un.org

Password:

Geoguard2023!

