Global water quality assessment
UN Environment GEMS/Water

Philipp Saile
UN Environment GEMS/Water Data Centre
International Centre for Water Resources and Global Change
Federal Institute of Hydrology

Hartwig Kremer
UN Environment GEMS/Water Global Programme Coordination Unit and Climate Technology Centre and Network

UN Environment GEMS/Water

SUSTAINABLE DEVELOPMENT GOALS

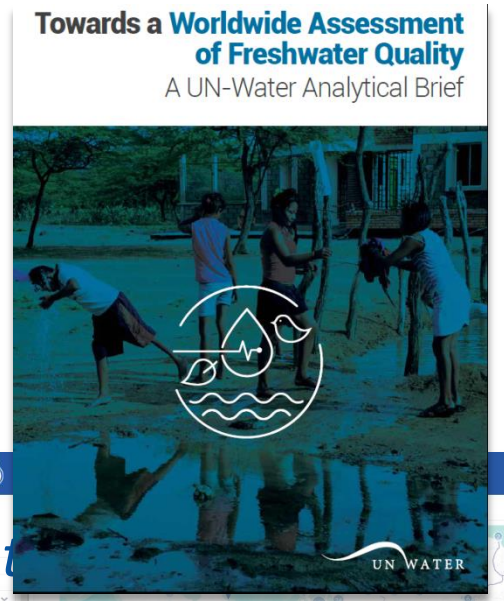
6 CLEAN WATER AND SANITATION

Assessments

Capacity Development

Water Quality

Monitoring



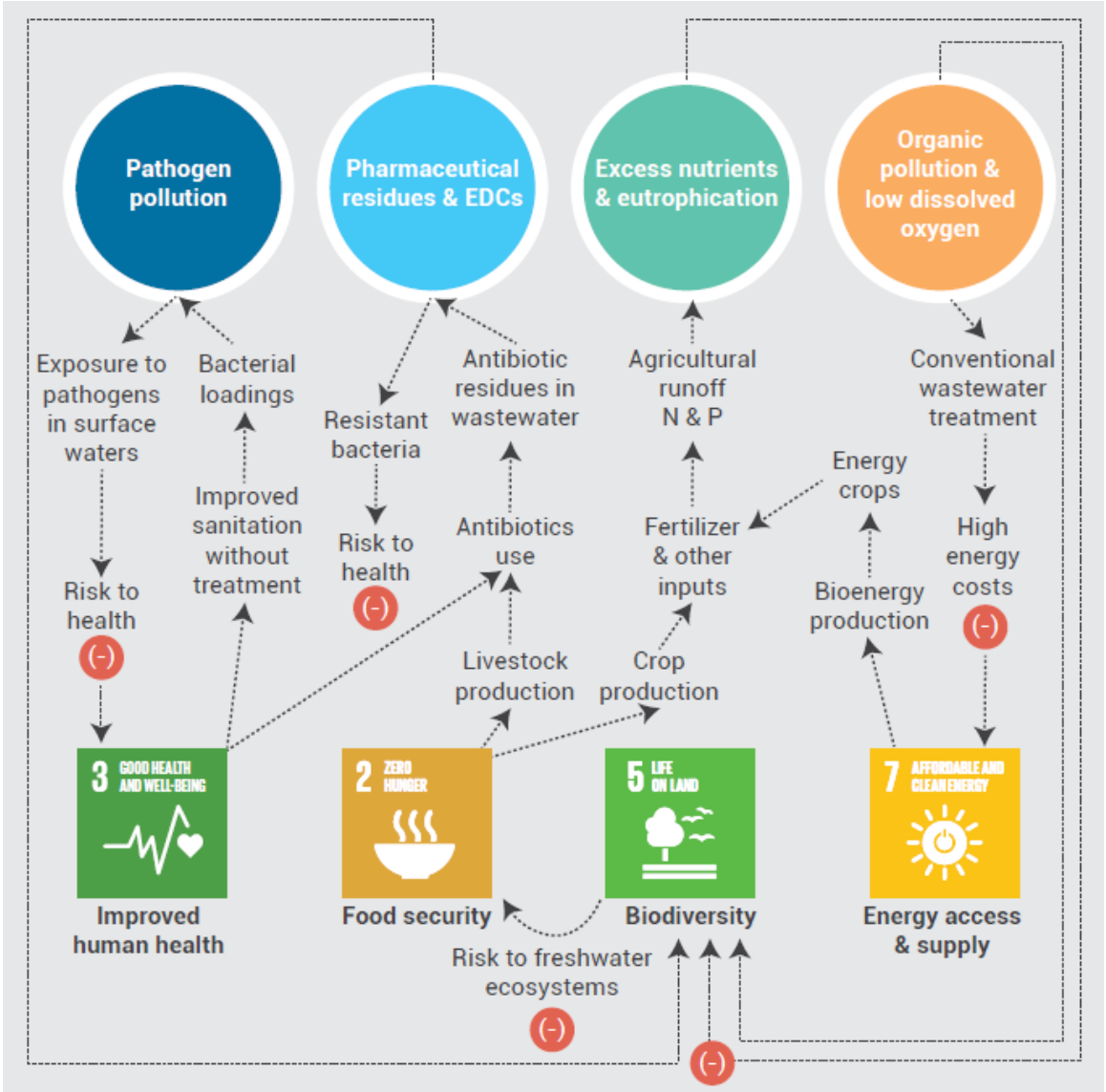
Global Monitoring Network
National and Collaborating Focal Points

UN environment | GEMS Water | bfg Bundesanstalt für Gewässerkunde | UNESCO

Water Quality and Development in the Agenda 2030

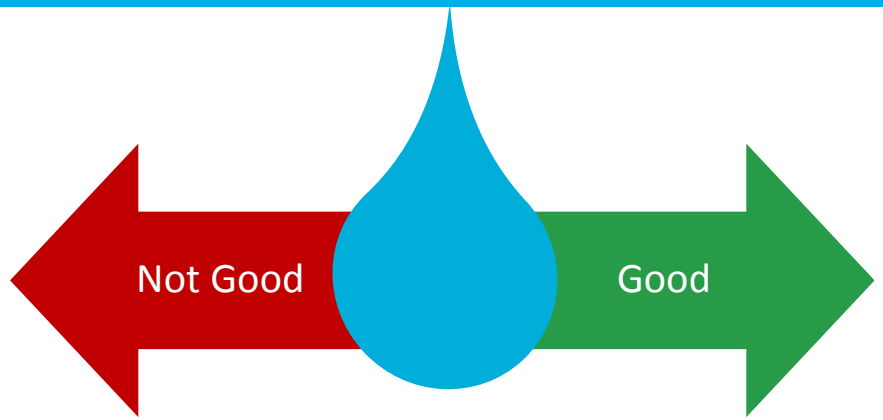
Water quality problems

Other SDGs



Source:
Towards a Worldwide Assessment of Freshwater Quality
A UN-Water Analytical Brief

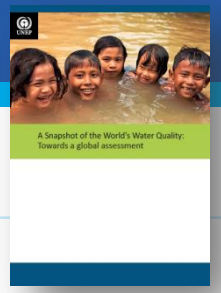
SDG Indicator 6.3.2: A global indicator of national water quality



80%

$$Percentage\ Compliance = \left(n_{comply}/n_{measure}\right) * 100$$

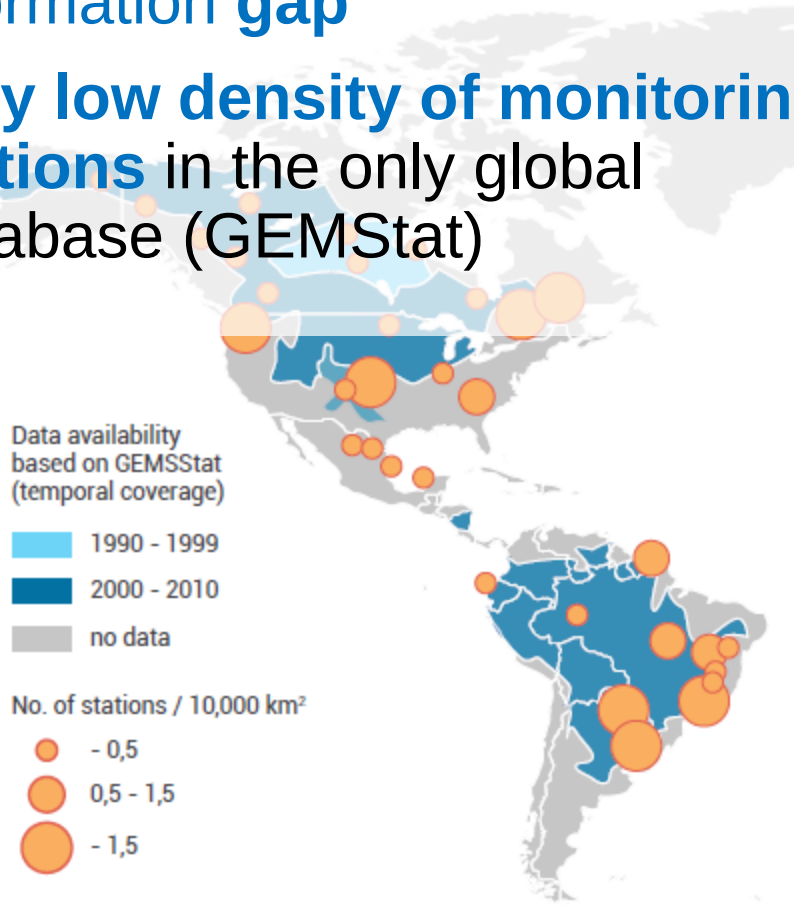
WWQA: Key findings on water quality

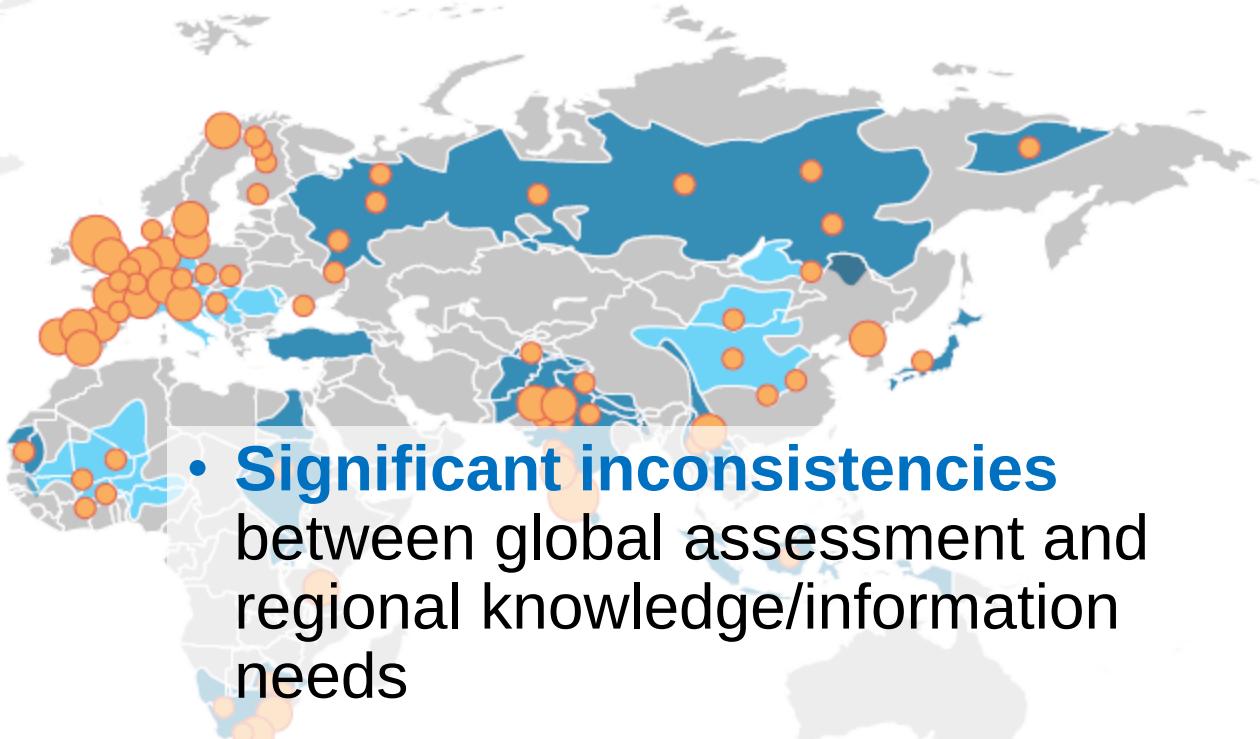


- **Water pollution has worsened** since the 1990s in almost all rivers in Latin America, Africa and Asia.
- **Severe pathogen pollution** already affects around one-third of all river stretches in Latin America, Africa and Asia.
- The number of **people at risk to health** by coming into contact with polluted surface waters may range into the tens of millions on these continents (842 000 deaths from diarrheal disease in 2012).
- **Severe organic pollution** already affects around one-seventh of all river stretches in Latin America, Africa and Asia.
- **Severe & moderate salinity pollution** → one tenth of all river kms
- The **food security from inland fisheries is threatened** in a number of countries in Africa and Asia
- **Emerging and persistent water quality problems** in industrialized countries – e.g. **pharmaceutical residues, eutrophication**
- **Majority of rivers** in developing countries **still in good condition** → Great opportunities for short-cutting further pollution and restoring the rivers that are polluted. → **Mix of management & technical options supported by good governance**

WWQA: Key findings on information and data

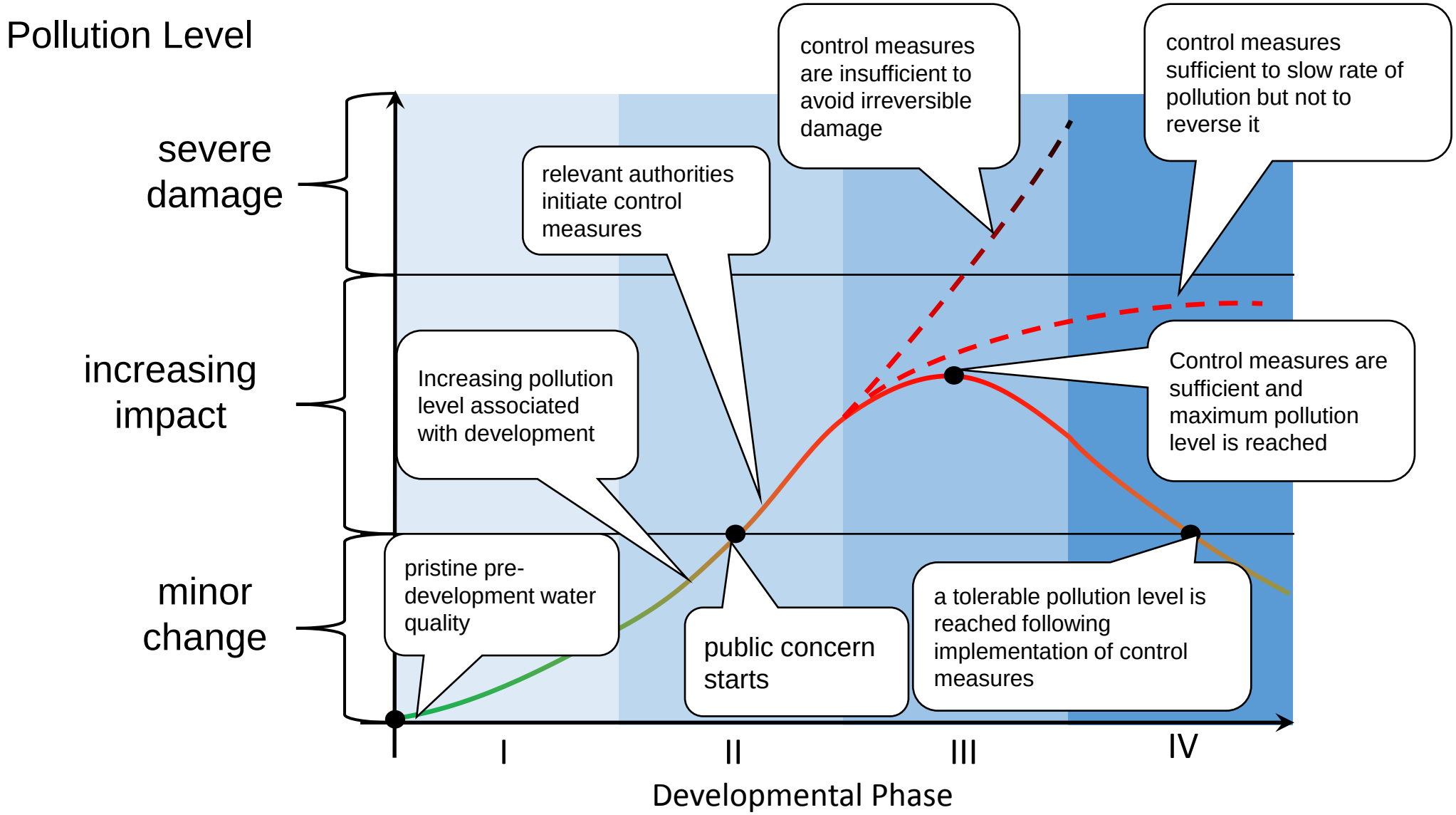
- There is a **substantial** data and information **gap**
- **Very low density of monitoring stations** in the only global database (GEMStat)





- **Significant inconsistencies** between global assessment and regional knowledge/information needs
- **Efforts and priorities** on data-deficient rivers/catchment **needed** => crucial for management

Conclusion: Developmental Phase & Water Quality



In the absence of reliable water quality monitoring data, countries don't know where they fall on this line!

WWQA: Full global assessment under development

Main theme?

Water quality in the context of the SDGs (health, food, ecosystems …)

What?

1. Assess the baseline
2. Anticipate trends - scenario analysis
3. Evaluate mitigation options
4. Identify governance options

How?

Science-based, strong policy context – interaction with stakeholders

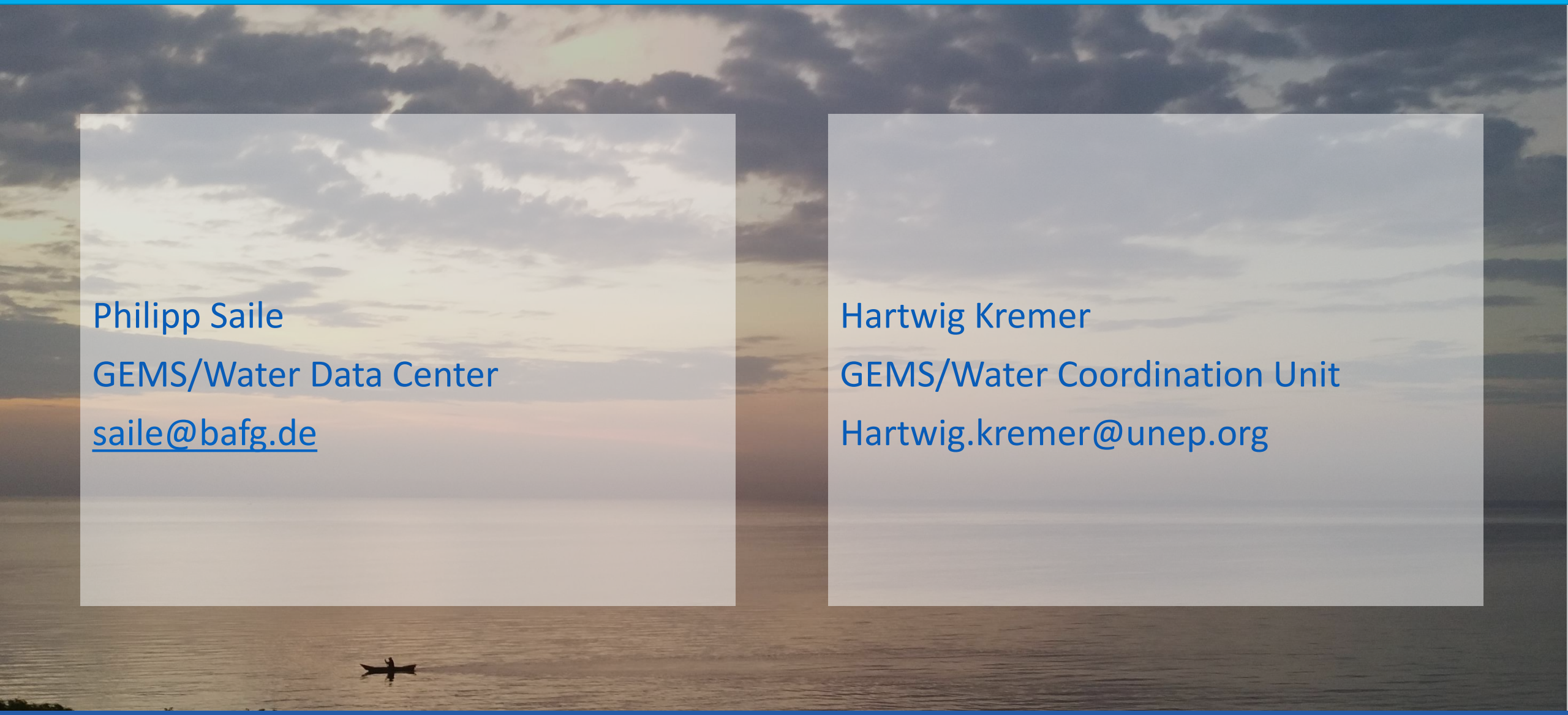
Build on methods and findings of *Snapshot* report

Why?

Help achieve the SDGs, raise awareness, understand options

Knowledge to act on the global water quality challenge

Thank you for listening



Philipp Saile
GEMS/Water Data Center
saile@bafg.de

Hartwig Kremer
GEMS/Water Coordination Unit
Hartwig.kremer@unep.org