

Introduction to the Roundtable Discussion on

Data and Information

By Stefan Uhlenbrook, WMO



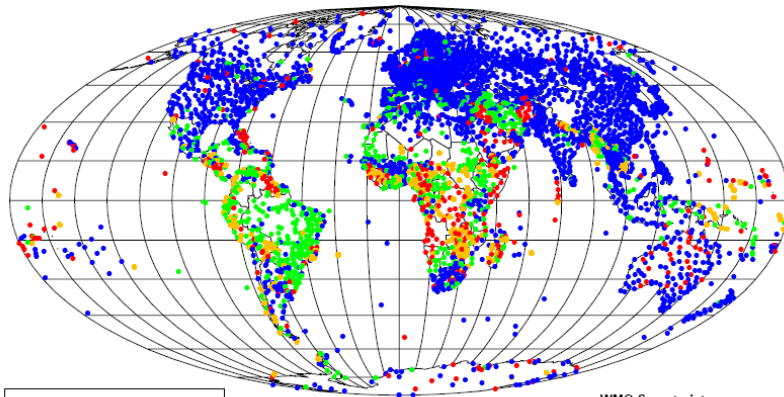
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World Meteorological Organization

Organisation météorologique mondiale

The Problem – Declining Observations Networks

Surface observations



WMO Secretariat

Percentage of reports received:
● 90 to 100 percent (2967 stations)
● 45 to 90 per cent (807 stations)

The designation employed and the presentation of material in this publication do not imply the expression of any opinion

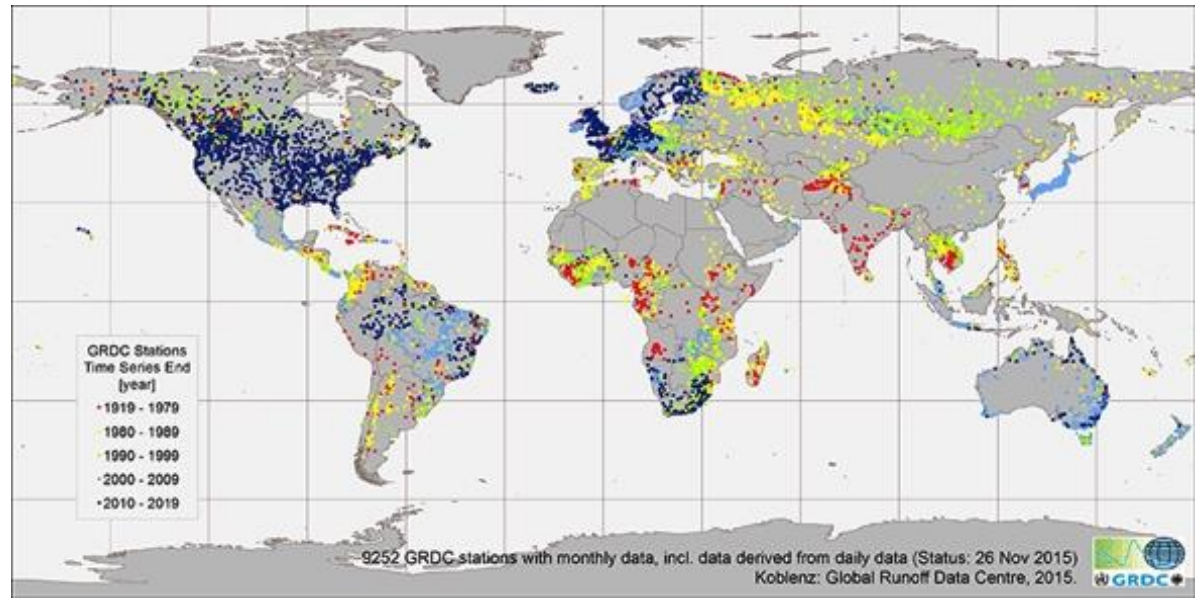


Source: HOBO, UK

Hydrometry networks



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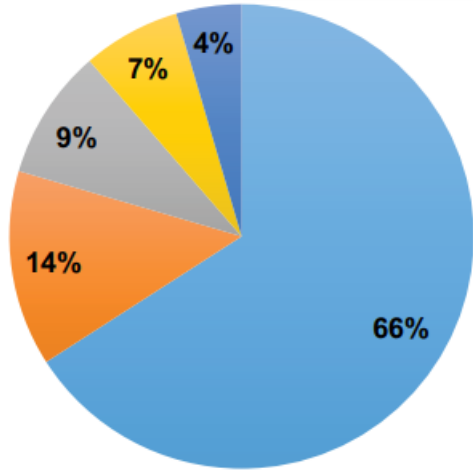
9252 GRDC stations with monthly data, incl. data derived from daily data (Status: 26 Nov 2015)

Koblenz: Global Runoff Data Centre, 2015.



The Problem – Status of Observation Networks

FIGURE 3 • Status of Hydrometeorological Observation Networks in Developing Countries



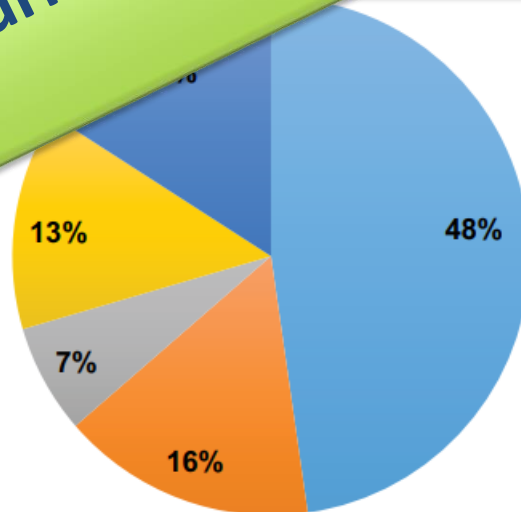
Source: World Bank Group based on all listed references (2018).

- Networks in poor or declining state
- Networks inadequate to meet all user needs
- Networks considered adequate
- Networks currently being upgraded
- Insufficient information



Game Changer: Turn this trend around! How??

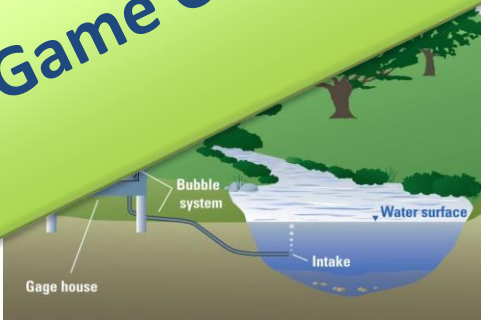
Data Management Systems in Developing Countries



- Data management system in poor state
- Data management system in need of upgrade
- Data management system adequate
- Data management system being upgraded
- Insufficient information provided



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(World Bank, 2018)

Source: World Bank Group based on all listed references (2018).

Water Data and Information is critical for ...



Infrastructure
design and
planning



Climate analysis,
forecast and
warning



WASH, health and
well-being



Food and agriculture

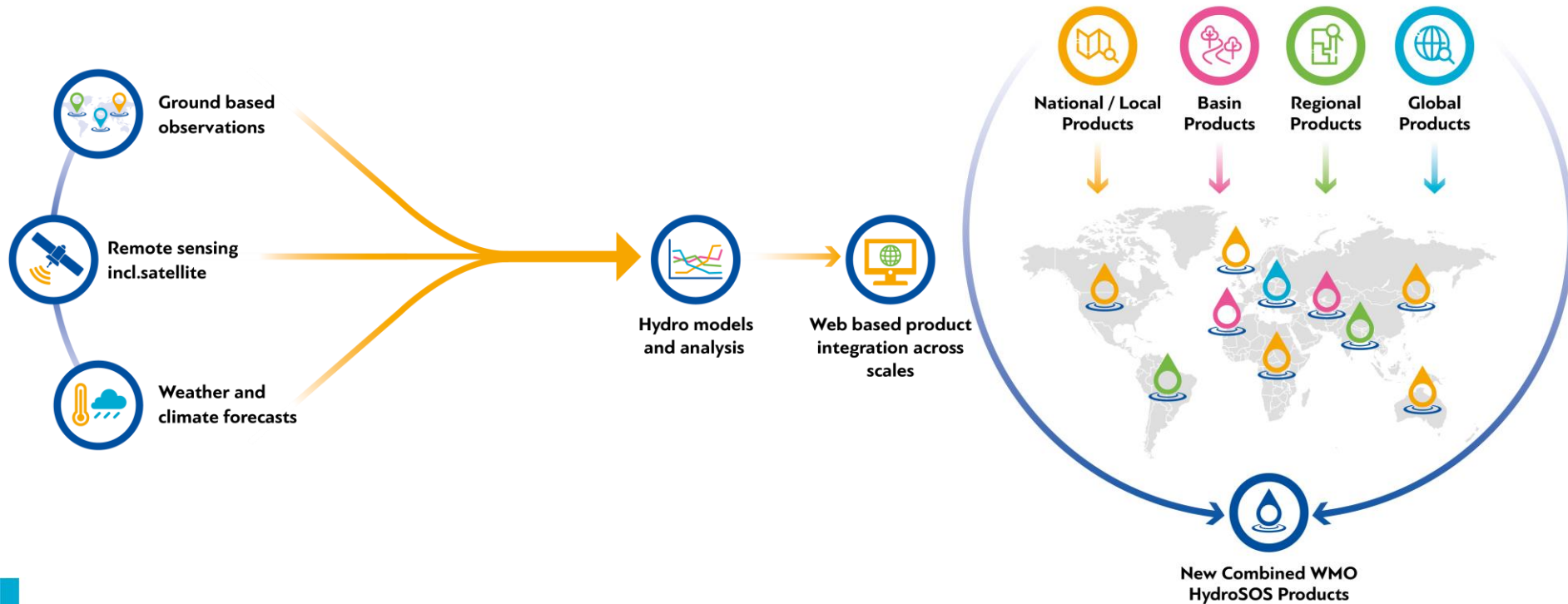


Ecosystems
management

And also for

- Energy and other industries
- Disaster risk reduction
- Mining
- Trade
- Tourism
- Digital economy
- Transportation
- Peace and security
- Etc.

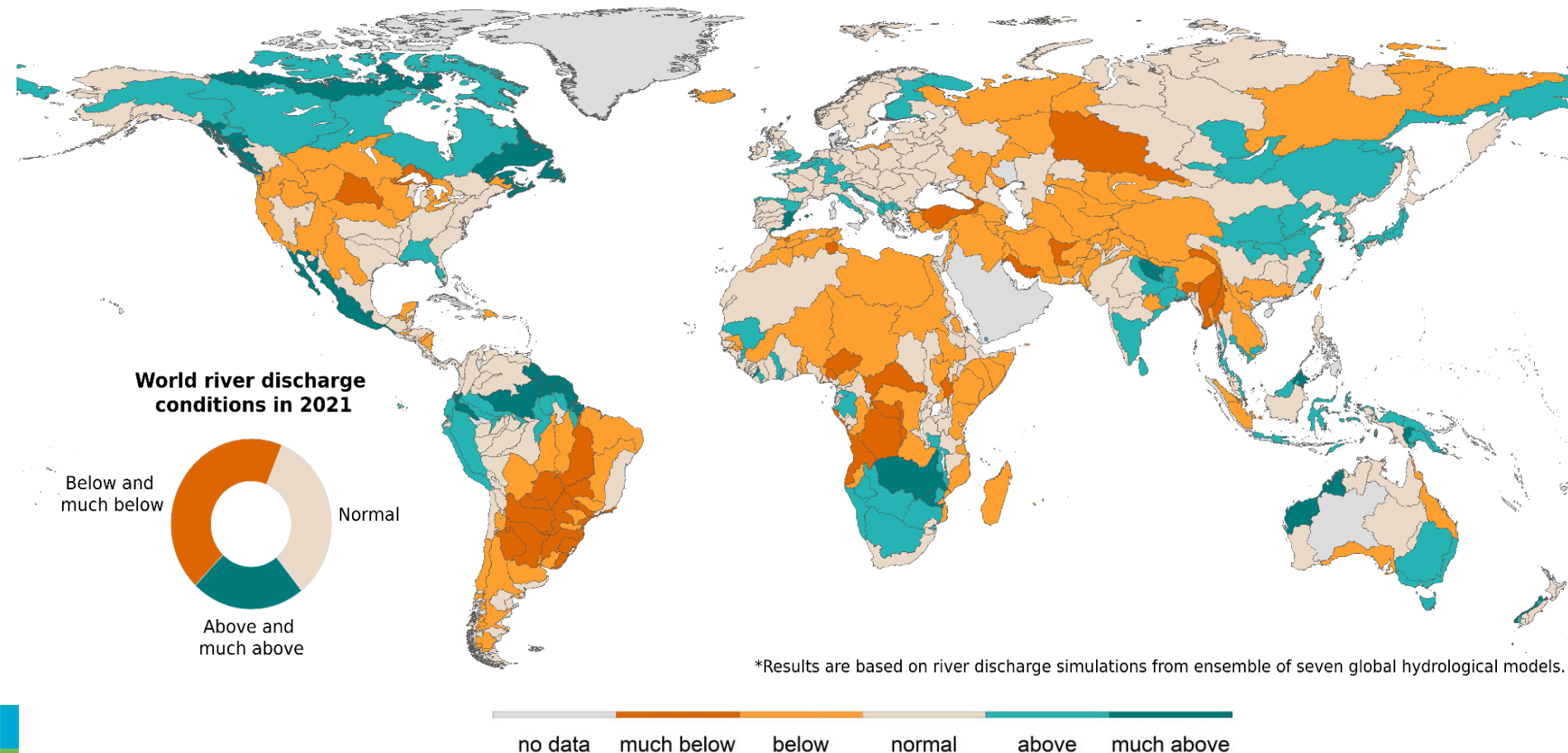
Vision: From Data to Information to Decision and Policy Support



**Game Changer:
Globally consistent and accessible
Water Information Services**

Example: 1st Annual State of Water Report

(WMO, 2022; *in press*)

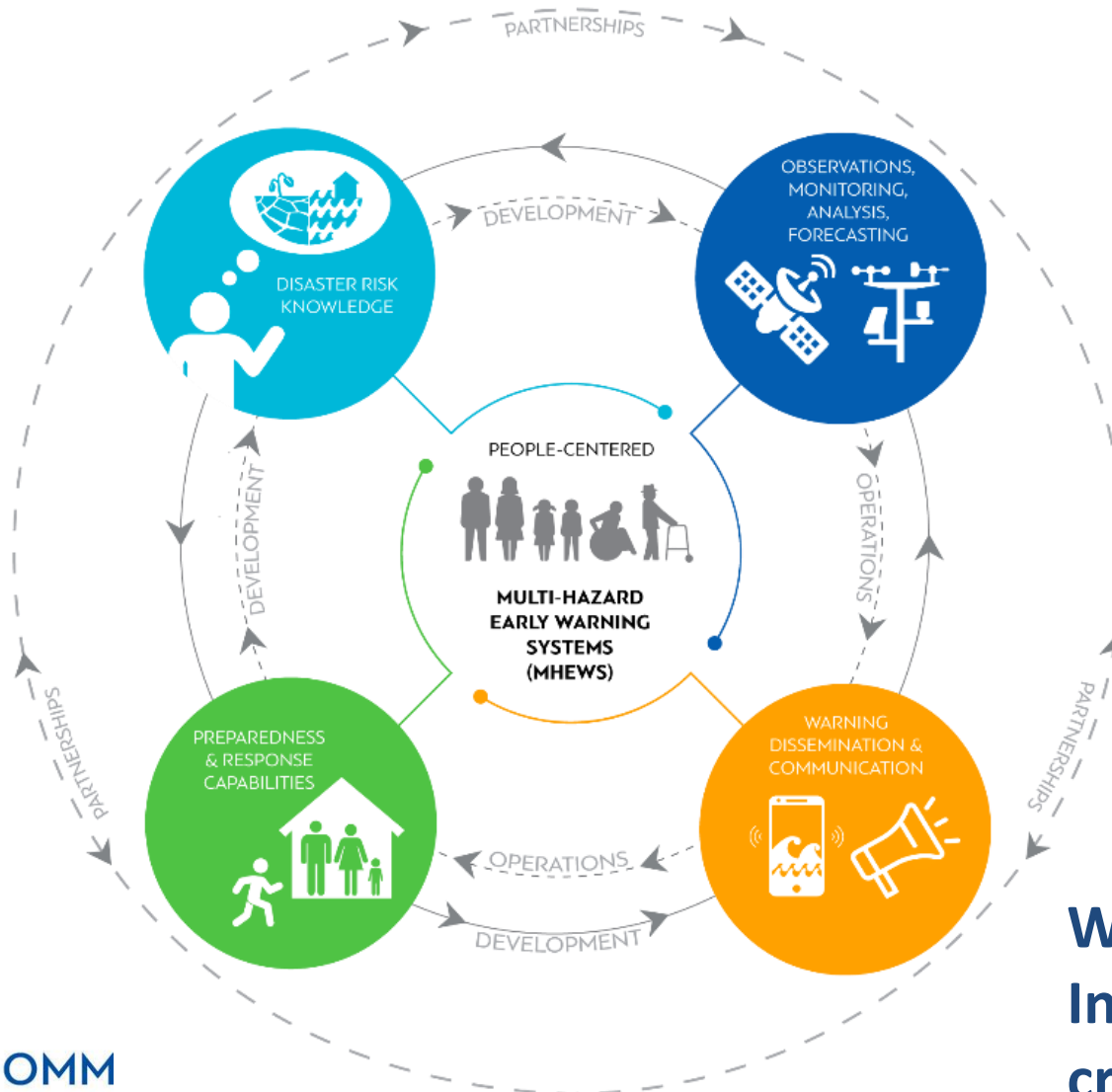


Streamflow in 2021 w.r.t. the hydrological normal for 515 basins
(calculated based on 30 years historic data, 1991-2020)



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Game Changer: UN Early Warnings for All Initiative

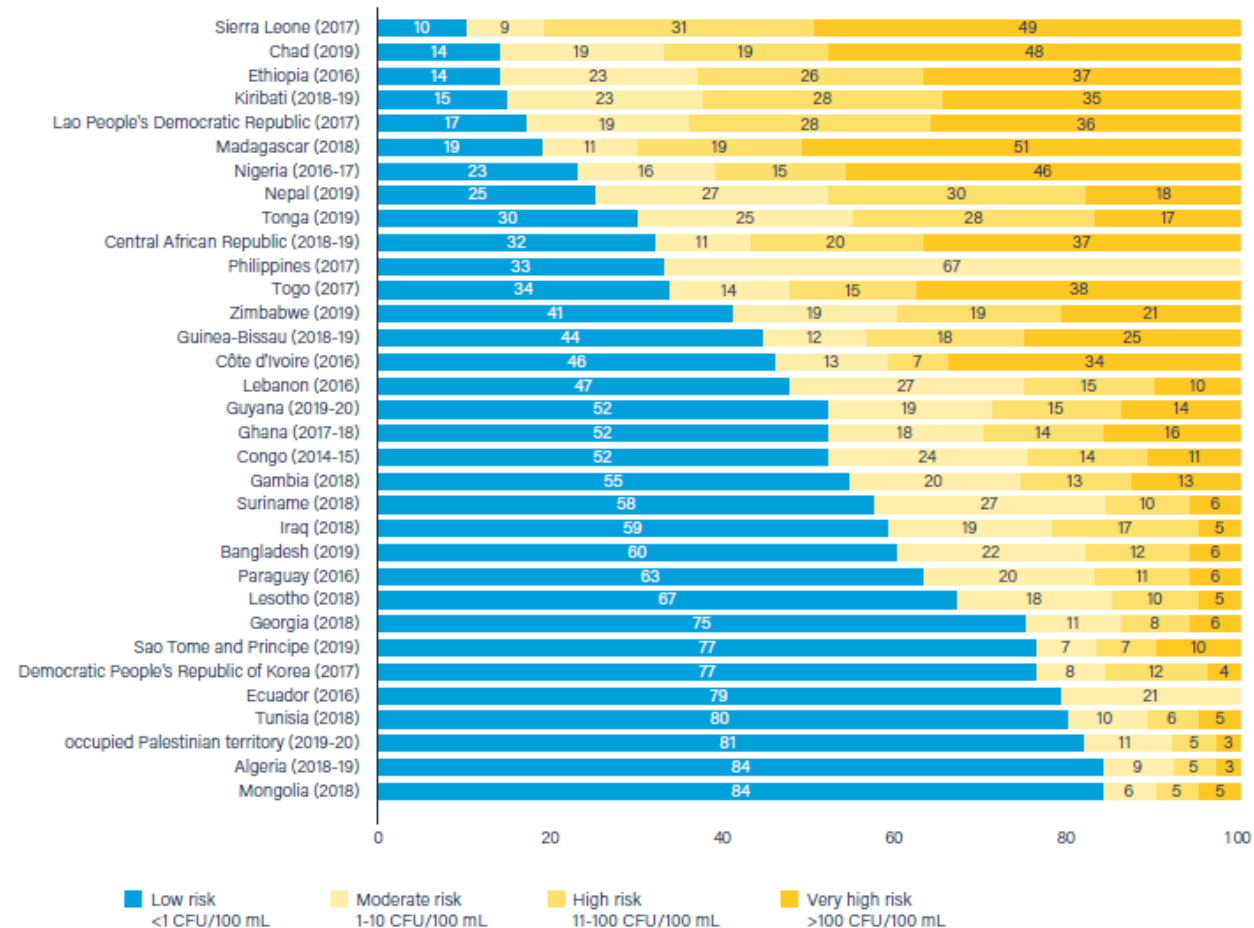
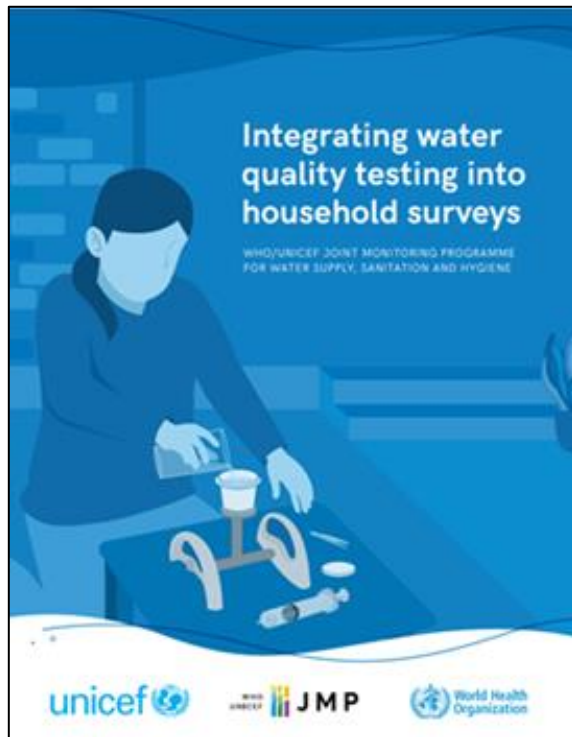


**Water Data and
Information is
critical in all pillars**



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Game Changer: Water Quality Testing in Household Surveys



Source: Progress on household drinking water, sanitation and hygiene 2000-2020: Five years into the SDGs. Geneva: World Health Organization and the United Nations Children's Fund; 2021.

Source:
JMP, 2022

Senegal
Sierra Leone
MICS

Togo and
Tobago
MICS
Turks and
Caicos MICS

Potential Game Changer: Disaggregated Data on Inequalities

Open defecation varies widely between and within countries in sub-Saharan Africa



FIGURE 67 Inequalities in open defecation in Madagascar and sub-Saharan Africa, 2020 (%)

Note: Wealth quintiles and sub-national inequalities from the Madagascar 2018 MICS.

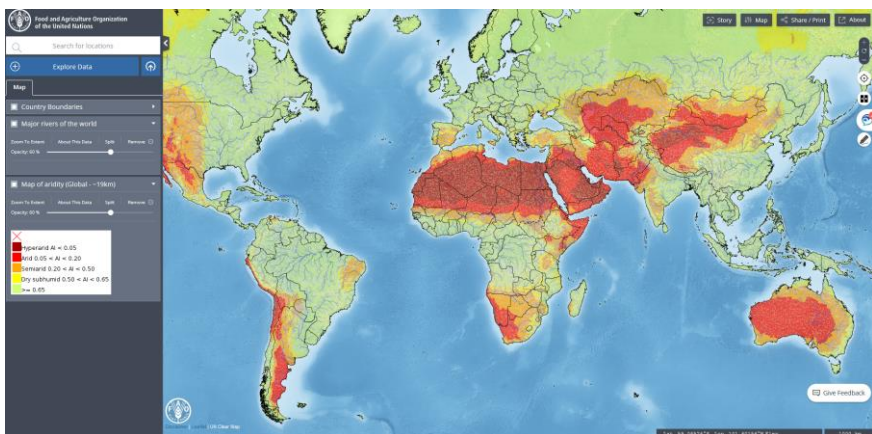


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Source:
JMP, 2022

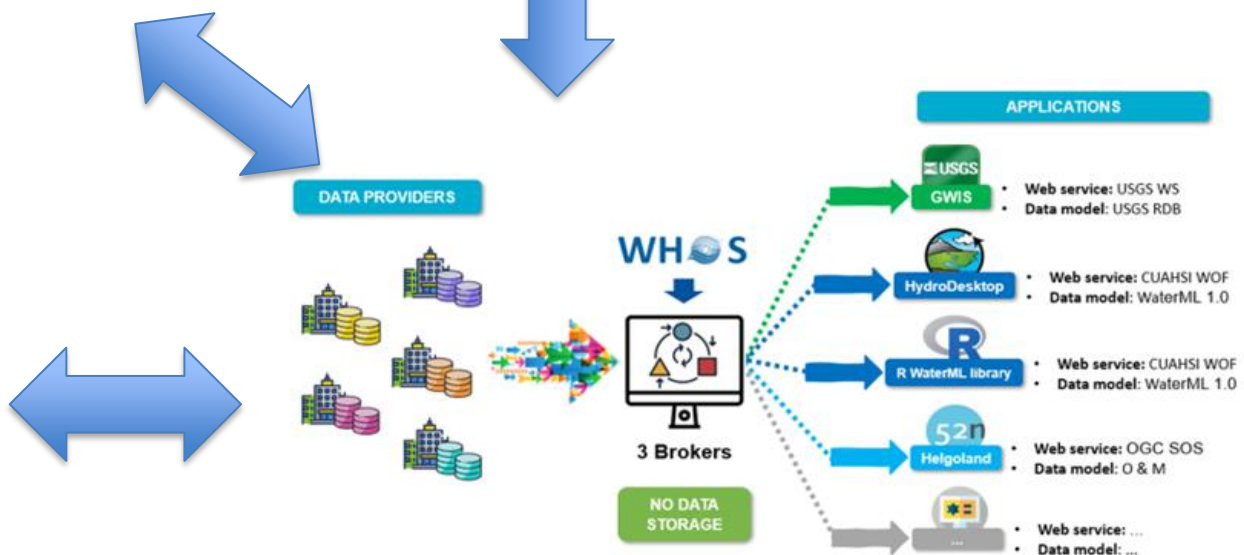
Game Changer: Global Water Portal

'one-stop-shop for water data and information'



Source: FAO, 2022, AquaMaps

*Many others
data sources ...*



[WMO Hydrological Observing System \(WHOS\) |](#)
[World Meteorological Organization](#)

WHOS: A technical solution for sharing hydrological data

Thank you Merci



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Concluding Remarks

How will stakeholders benefit?

A globally consistent data and information system will benefit many sectors across scales.

- Enhanced local capabilities will be used by **national agencies** assisting with water resources management.
- Shared information products will help **basin organisations** inform decision makers and prevent conflicts.
- Integrated regional/global overview will assist **aid & development sector**, NGOs and UN agencies in their anticipatory action and re



Vision: Globally consistent and accessible Water Information Services

