



UN
2023 WATER
CONFERENCE

NEW YORK
22-24
MARCH
2023

Water for Climate, Resilience, and Environment



Prof. Petteri Taalas
Secretary-General, WMO

WMO OMM

World Meteorological Organization

Organisation météorologique mondiale

Wake up to Water for Climate, Resilience and Water

- Need for a paradigm shift to ensure **integrated action on water and climate**
- For too long water has been a **'blindspot' in climate talks** and it is time to wake up the reality that water management can also provide **powerful solutions** for adapting to the impacts of climate change, achieving resilience, and even reducing greenhouse gas emissions

Water data and information is critical for effective decision making!



Infrastructure design and planning



Climate analysis, forecast and warning



WASH, health and well-being



Food and agriculture



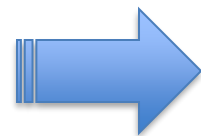
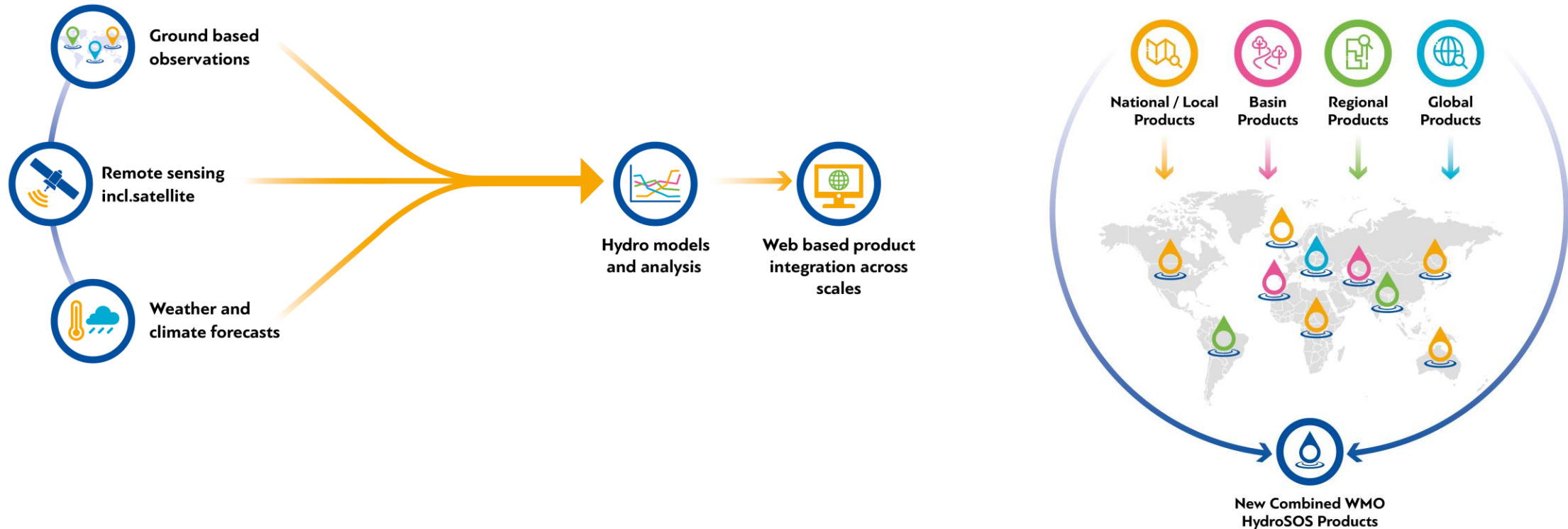
Ecosystems management

And also for

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

WMO Commitment to Water Action Agenda: Global Hydrological Status and Outlook System & Reporting

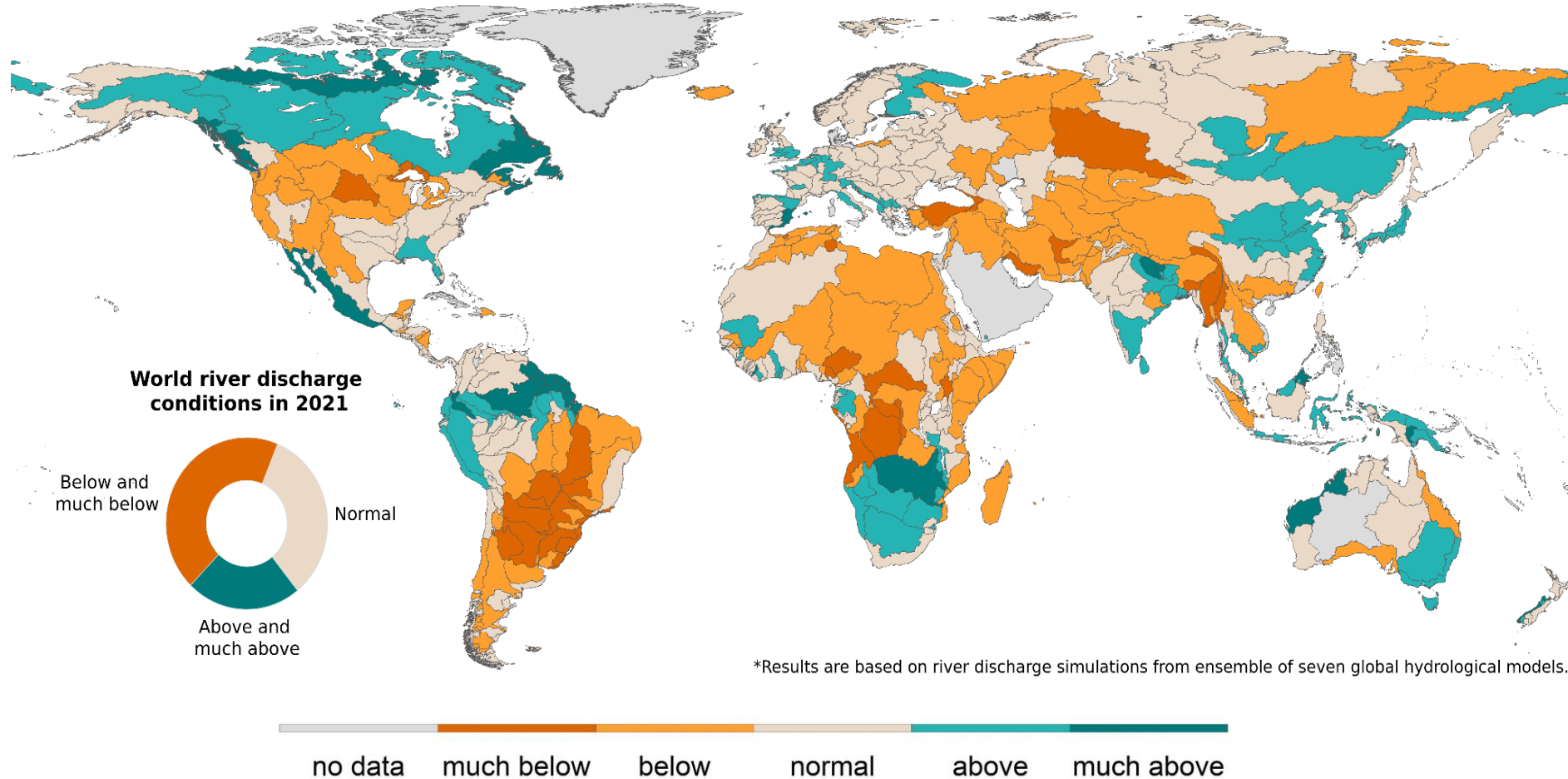
From Data to Information to Decision and Policy Support



**Globally consistent and accessible
Water Information Services for All**

Example global long-term outputs

1st WMO State of Global Water Resources Report (WMO, 2022)

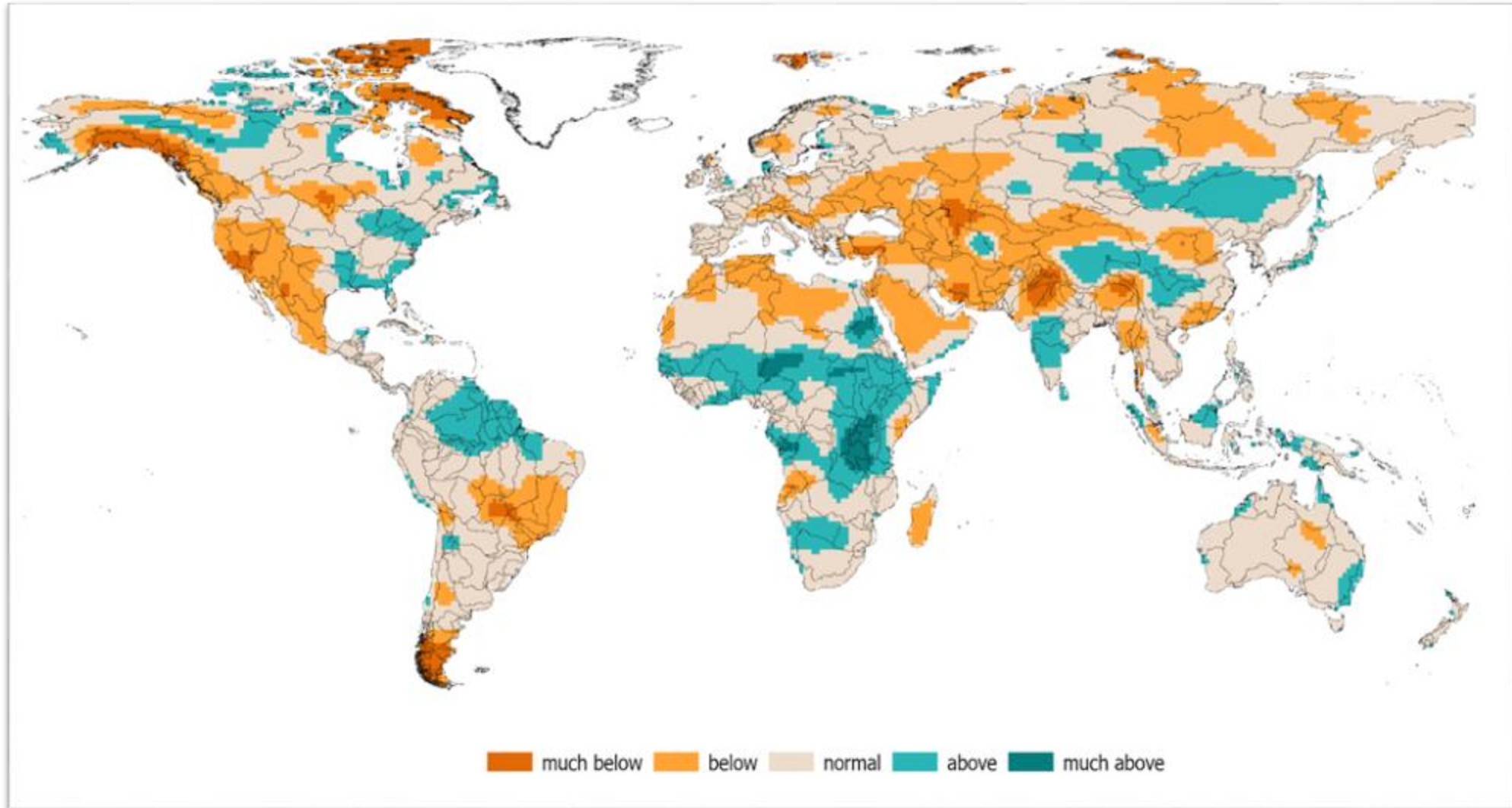


Streamflow in 2021 w.r.t. the hydrological normal for 515 basins
(calculated based on 30 years historic data, 1991-2020)



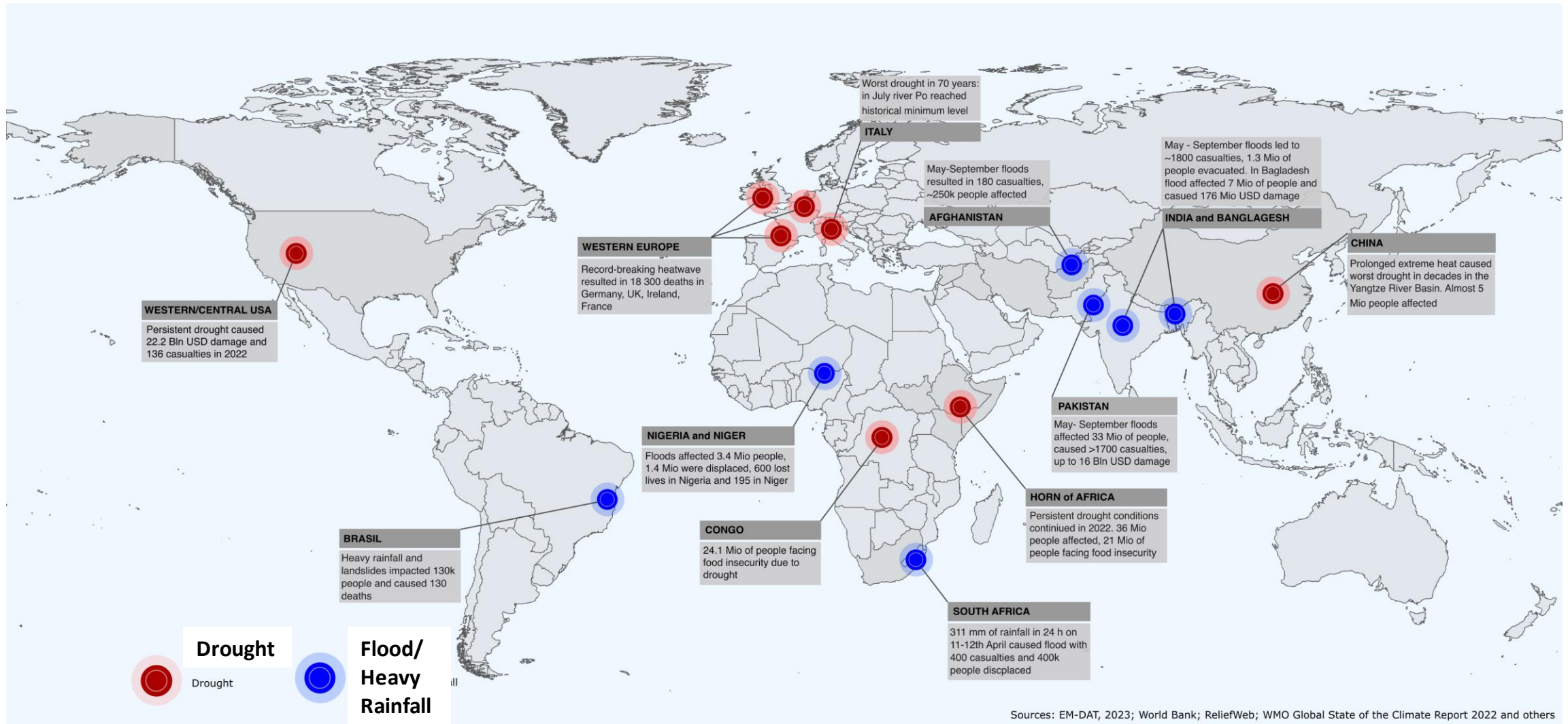
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Terrestrial Water Storage Status in 2021 (WMO, 2022)



TWS in 2021 ranked with respect to the historic period (2002-2020)

Selected High Impact Hydrological Events 2022 (WMO, 2023, *in progress*)



Sources: EM-DAT, 2023; World Bank; ReliefWeb; WMO Global State of the Climate Report 2022 and others

EARLY WARNINGS FOR ALL

The UN Global Early Warning Initiative for the Implementation of Climate Adaptation

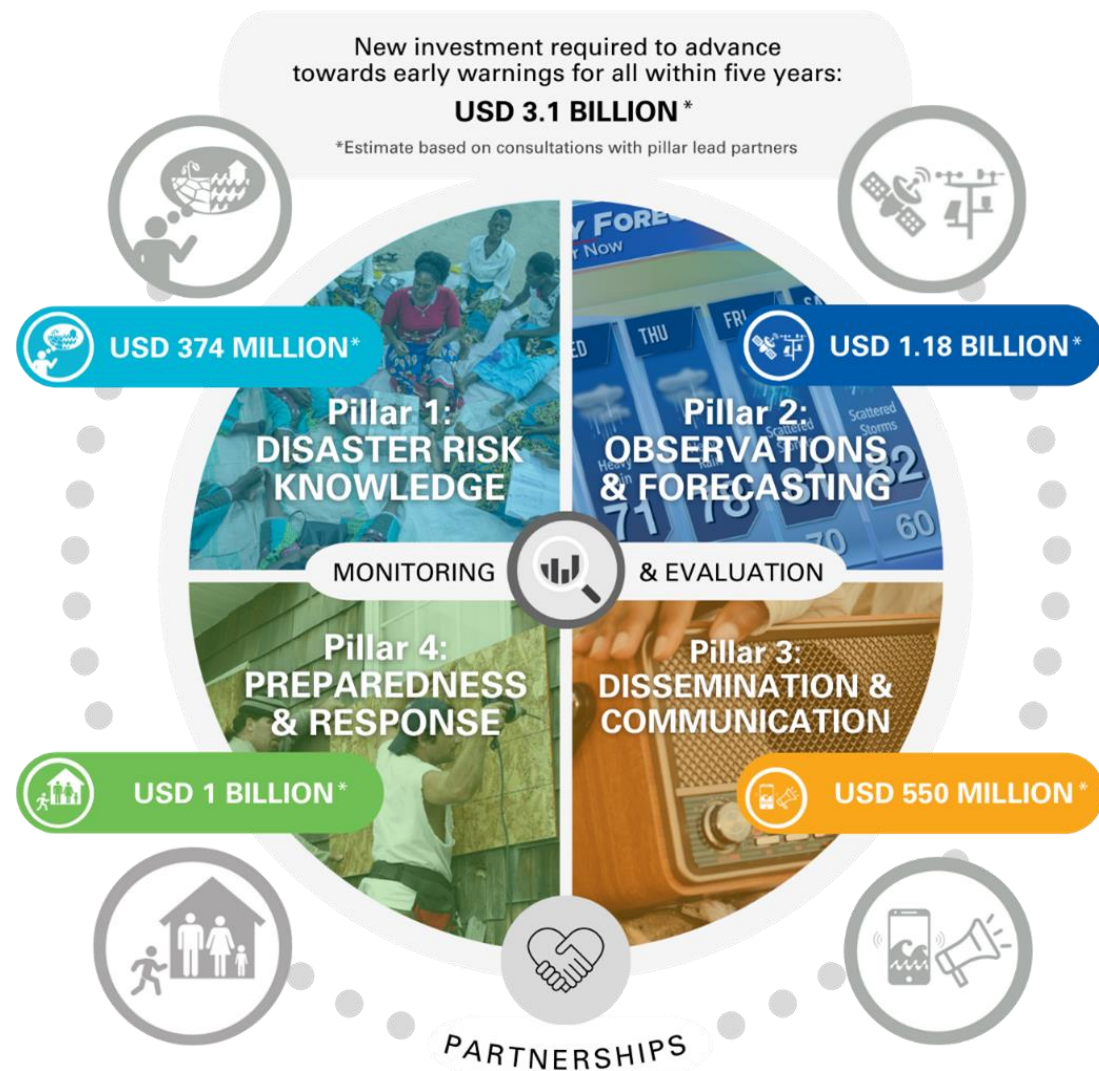
Executive Action Plan 2023-2027

Second Commitment: EW4All Focus on Floods and Droughts Join us to make it happen!

New investment required to advance
towards early warnings for all within five years:

USD 3.1 BILLION*

*Estimate based on consultations with pillar lead partners



WEATHER CLIMATE WATER

Global Basic Observing Network

- Sets international rules for **exchanging critical data** for saving lives and support sustainable development
- Supported by the **WMO Unified Data Policy**
- The implementation will **strengthen the knowledge about all Earth-system components**, with massive socioeconomic benefits as a result of delivering better, more accurate and timely weather, hydrology and climate-related services to all
 - ***Future objective: expand GBON with hydrological parameters***



WEATHER CLIMATE WATER

TEMPS CLIMAT EAU



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Thank you

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Presentation
Prof Petteri Taalas, Secretary General
World Meteorological Organization (WMO)

UN 2023 Water Conference

Interactive Dialogue 3 - Water for Climate, Resilience and Environment

23 March 2023

VENUE: CR4, UNHQ

Slide 2 - WMO is the Specialized Agency on Weather, Climate and Water focusing on the impacts of climate change on water and offering powerful solutions to these challenges. Integrated water and climate solutions can help adapt and mitigate the impacts of climate change.

Slide 3 – WMO facilitates global observation networks in real-time to enable countries to monitor, predict, and prepare for weather, climate, water, and atmospheric composition changes. These services are important for various sectors including energy, food, mining, trade, tourism, etc., providing positive impacts to local economies.

Slide 4 – WMO commits to the Water Action Agenda the Global Hydrological Status and Outlook System (HydroSOS) which assesses status of water resources and provide outlooks at seasonal to sub-season time scales considering the effects of climatic, environmental, and societal changes on the Earth's freshwater resources.

Slide 5, 6 and 7 – WMO started publishing the State of Global Water Resources Report in order to assess the effects of climate, environmental and societal change on the Earth's water resources. The aim of this annual stocktake is to support the monitoring and management of global freshwater resources in an era of growing demand and limited supplies.

The report gives an overview of river flow, as well as major floods and droughts. It provides insights into hotspots for changes in freshwater storage and highlights the crucial role and vulnerability of the cryosphere (snow and ice).

Last year's report shows how large areas of the globe recorded drier than normal conditions in 2021 - a year in which precipitation patterns were influenced by climate change. The area with below-average streamflow was approximately two times larger than the above-average area, in comparison to the 30-year hydrological average.

Slide 8 - The second commitment of WMO to the Water Action Agenda addresses the UN Secretary-General's call to ensure that every person on Earth is protected by early warning systems within five years. Therefore, the organization will continue to enhance Earth system observations, monitoring and using best science and research for better forecasting floods, droughts and other extremes worldwide.

Slide 9 - Monitoring and sharing of data is key and related policies are needed! The Global Basic Observing Network (GBON), supported by the WMO Unified Data Policy, sets international rules for exchanging critical data for saving lives and support sustainable development.