



United Nations
Educational, Scientific and
Cultural Organization



World Water
Assessment
Programme



Achieving the Water Goal SDG 6

and the 2030 Agenda for Sustainable Development in a Rapidly Changing Environment

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UNESCO World Water Assessment Programme (WWAP), Perugia, Italy

Winter School on Data Rich Hydrology, 28 Jan – 1 Feb 2019, Colombella, Italy

UNESCO World Water Assessment Programme (WWAP)



“

*Shedding
light on the
most pressing
issues related
to freshwater
resources*

”

unesco wwap: why & when

The World Water Assessment Programme (WWAP) is a UNESCO Programme. Originally founded in 2000 in response to a call from the United Nations Commission on Sustainable Development for a United Nations system-wide effort ‘*to prepare periodic assessments and analyses of water resources availability (with a focus on both quantity and quality) and present a global picture of the state of freshwater resources and major challenges*’.



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“You can't manage what you don't measure”

WWAP's MANDATE: WWAP seeks to equip water managers and key decision-makers with the information, data, tools and skills necessary to effectively participate in the development of relevant policies.

unesco wwap: who & where

- WWAP is part of the Natural Science Sector of UNESCO (United Nations Educational, Scientific and Cultural Organizations) and the Division of Water Sciences (DWS).
- UNESCO Water “Family”: the International Hydrological Programme (IHP; secretariat at the DWS); Network of Category II Centers (26) and Chairs (41)

Donors and Premises:

2000-2006: UNESCO HQ, Paris, France
(funded by the Japanese Government, with additional contributions from other countries).

2007-present: Villa La Colombella, Perugia, Italy (funded by the Italian Government and the Region Umbria with additional contributions from other countries and organizations)





UN WORLD WATER ASSESSMENT PROGRAMME

Monitor – Assess – Report the State, Use and Management of Water Resources



Policy-Science Dialogues

Knowledge Sharing, Advocacy, Outreach, Capacity Development

Evidence-based Knowledge Products

UN World Water Development Reports, SDG 6 Synthesis Reports

Complementary Projects

Water Assessment, Water and Gender, Emerging Fields



WATER and SANITATION

Focus during the **MDGs** phase
(2000-2015)



Source: UN-Water, 2016

SDG 6

6 CLEAN WATER AND SANITATION



“Ensure availability and sustainable management of water and sanitation for all” (2016-2030)

6.4
Water use
and scarcity

6.5
Water
manage-
ment

6.6
Eco-
systems

6.a and 6.b
Cooperation
and
participation

6.3
Waste-
water and
water
quality

6.2
Sanitation
and
hygiene

6.1
Drinking
water



HLPF TIMELINE

2013

Building the future we want: from Rio+20 to the post-2015 development agenda

2015

Strengthening integration, implementation and review - the HLPF after 2015

2017

Eradicating poverty and promoting prosperity in a changing world



2019

Empowering people and ensuring inclusiveness and equality

2014

Achieving the MDGs and charting the way for an ambitious post-2015 agenda

2016

Ensuring that no one is left behind



2018

Transformation towards sustainable and resilient societies



{ The set of goals to be reviewed in depth will be the following, including Goal 17. }

6 CLEAN WATER AND SANITATION

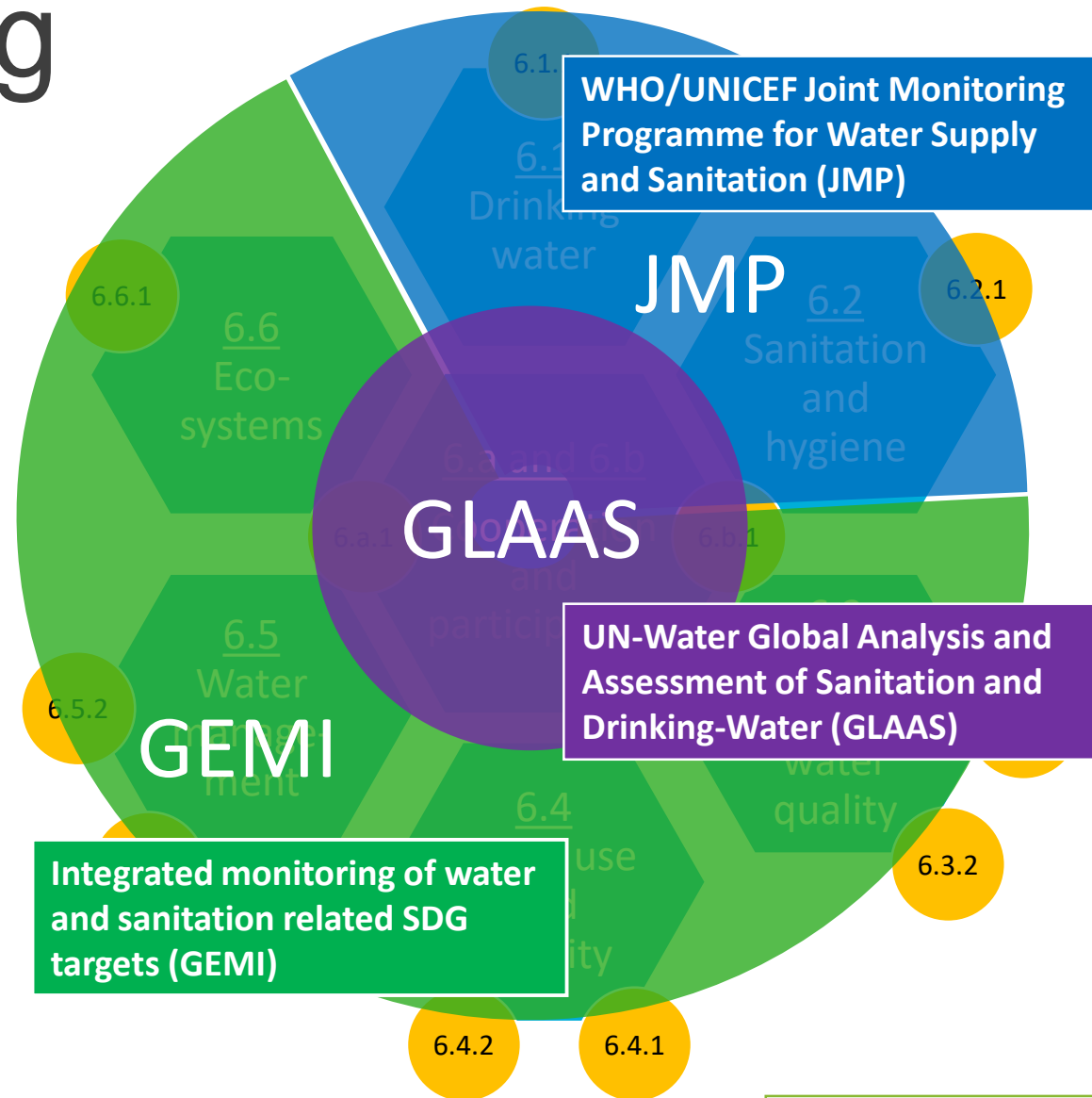


ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

ACCESS TO SAFE WATER AND SANITATION AND SOUND MANAGEMENT OF FRESHWATER ECOSYSTEMS ARE ESSENTIAL TO HUMAN HEALTH AND TO ENVIRONMENTAL SUSTAINABILITY AND ECONOMIC PROSPERITY

Data Sources: SDG 6 Global Monitoring

- ✓ Develop **methodologies and tools** to monitor SDG 6 global indicators
- ✓ **Raise awareness** at national and global levels about SDG 6 monitoring
- ✓ Enhance **country capacity in monitoring** (technical and institutional)



6.1.1	Safely managed drinking water services (WHO, UNICEF)*
6.2.1	Safely managed sanitation and hygiene services (WHO, UNICEF)*
6.3.1	Wastewater safely treated (WHO, UN-Habitat, UNSD)**
6.3.2	Good ambient water quality (UNEP)***
6.4.1	Water use efficiency (FAO)***
6.4.2	Level of water stress (FAO)**
6.5.1	Integrated water resources management (UNEP)**
6.5.2	Transboundary basin area with water cooperation (UNECE, UNESCO)**
6.6.1	Water-related ecosystems (UNEP)***
6.a.1	Water- and sanitation-related official development assistance that is part of a government coordinated spending plan (WHO, UNEP, OECD)*
6.b.1	Participation of local communities in water and sanitation management (WHO, UNEP, OECD)*

* means tiers' number

SDG 6 MONITORING AND REPORTING

SDG 6 – Ensure availability and sustainable management of water and sanitation for all

1 Goal - 6+2 Targets - 11 Indicators



SDG 6 Synthesis Report 2018

6 CLEAN WATER
AND SANITATION



Added Value:

- ✓ United Nations speaking with one voice on SDG 6
- ✓ Avoids a fragmented approach on SDG 6 reporting
- ✓ Analyse data, information and policy linkages between different SDGs

Objective – support HLPF

- ✓ Reviews current **situation and trends at global/ regional level**
- ✓ Provide data on **global baseline status of SDG 6**,
- ✓ Explore the **linkages between SDG 6 and SDGs**,
- ✓ Discuss ways to **accelerate achieving SDG 6**, and
- ✓ Offer **policy perspectives** on accelerating achieving SDG 6 in the overall Agenda 2030 context.



HIGHLIGHTS



The Sustainable Development Goal 6 Synthesis Report 2018 on Water and Sanitation reviews the global progress made towards achieving Sustainable Development Goal 6 (SDG 6) of the 2030 Agenda for Sustainable Development. It builds on the latest data available for the 11 SDG 6 global indicators and will inform the High-level Political Forum for Sustainable Development during its in-depth review of SDG 6 in July 2018. The report represents a joint position from the United Nations family.

The world is not on track

- **Billions of people still lack safe water, sanitation and handwashing facilities:** 844 million lack basic water ser-
- **Agriculture places enormous stress on water, but could be part of a water-saving solution:** The agriculture

A T E R

Spanish

SUMMARY

Sustainable Development Goal 6
Synthesis Report 2018 on
Water and Sanitation

WATER
SANITATION

Force and
include:

CEO Water Mandate, FAO, ILO, UNDP, UNECE, UNEP, UNESCO (WWAP, coordinator), UN-HABITAT, UNICEF, UNU, UN-Water TAU, WHO, WMO and World Bank

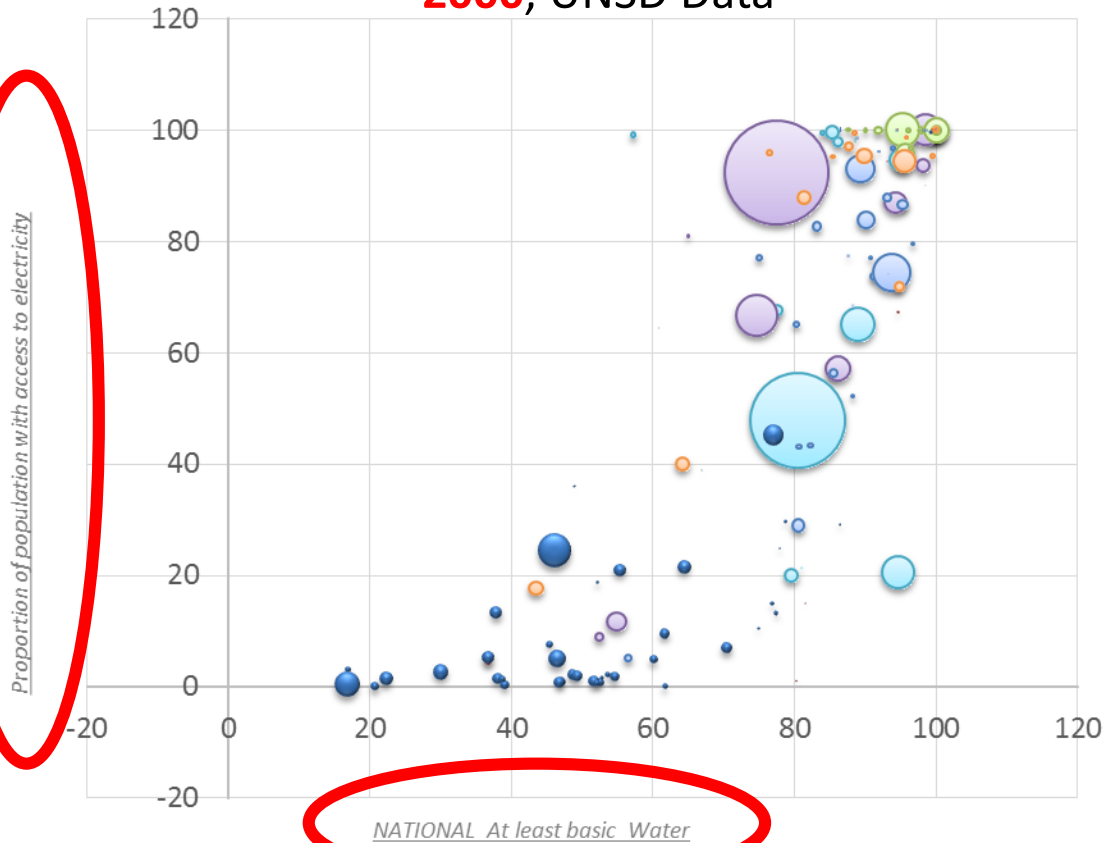
Main Message 1

Achieving SDG 6 is essential for progress on all other SDGs, and vice versa



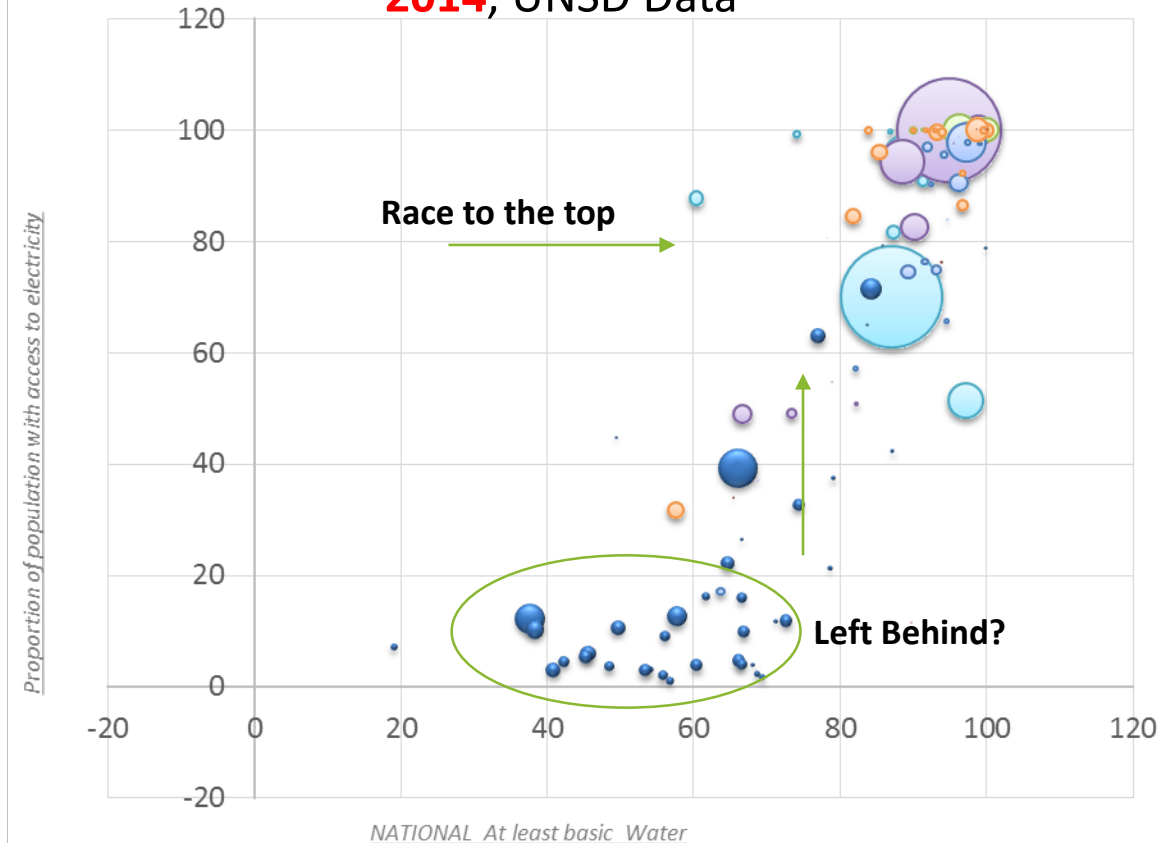
WATER, ENERGY and SOCIAL EQUITY

2000, UNSD Data



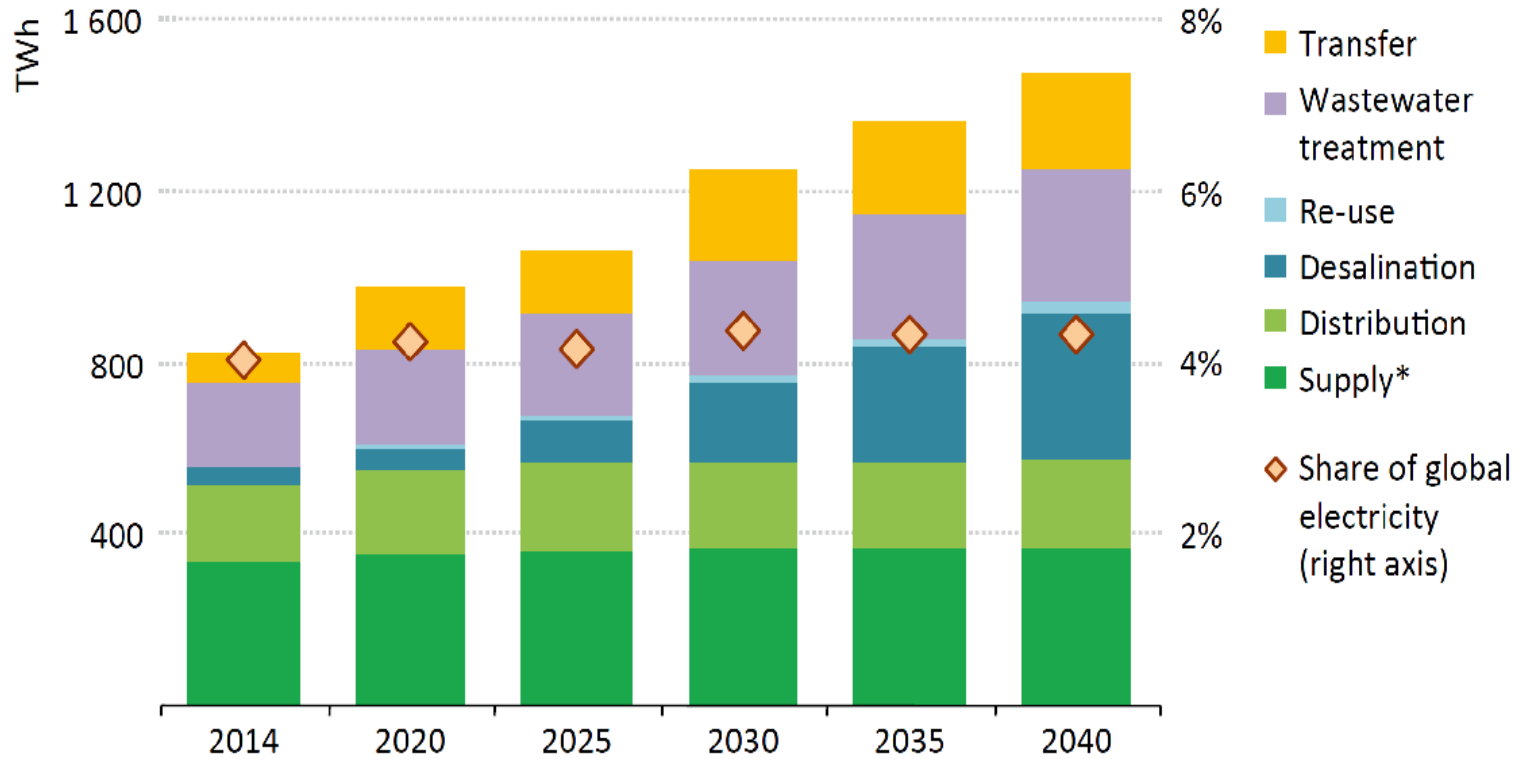
- Australia and New Zealand
- Europe and Northern America
- Oceania
- None
- Central and Southern Asia
- Latin America and the Caribbean
- Sub-Saharan Africa
- None
- Eastern and South-Eastern Asia
- Northern Africa and Western Asia
- None

2014, UNSD Data



- Australia and New Zealand
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- None
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WATER and ENERGY



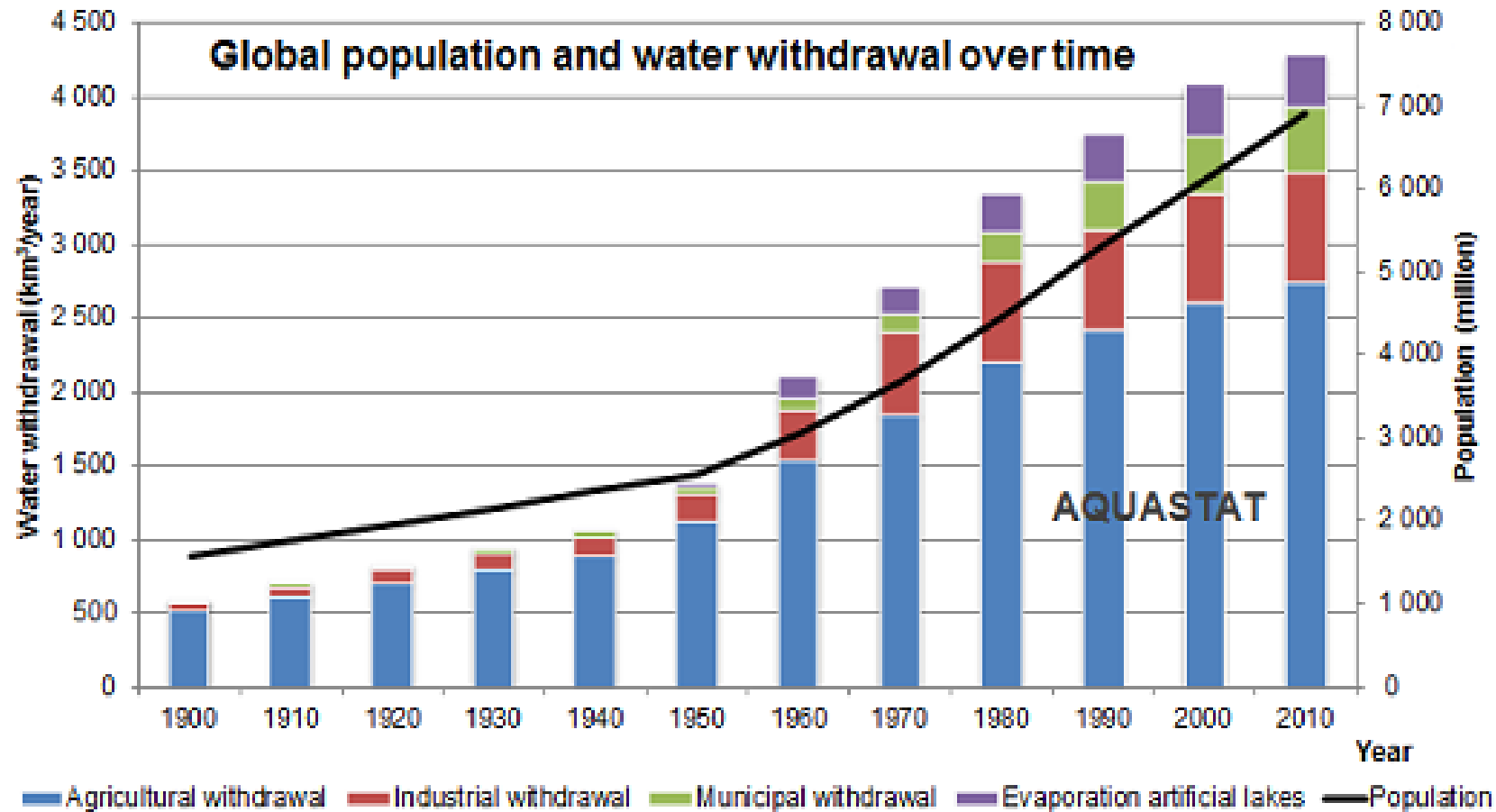
Electricity consumption in the water sector increases by 80% over the next 25 years

* Supply includes groundwater and surface water treatment.

Sources: Luck, et al. (2015); Bijl, et al. (2016); Wada, et al. (2016); IEA analysis.



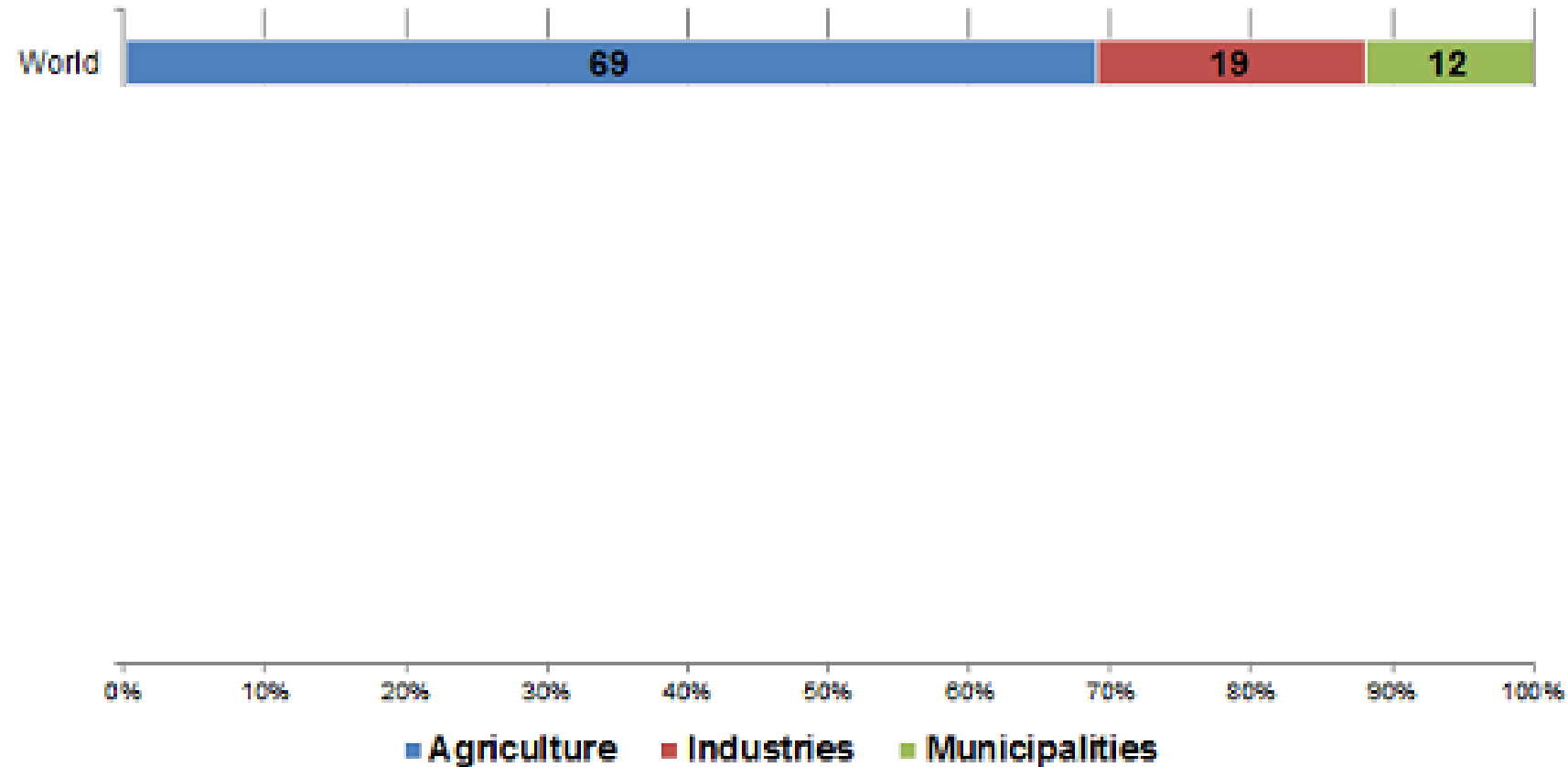
GLOBAL WATER WITHDRAWALS OVER TIME



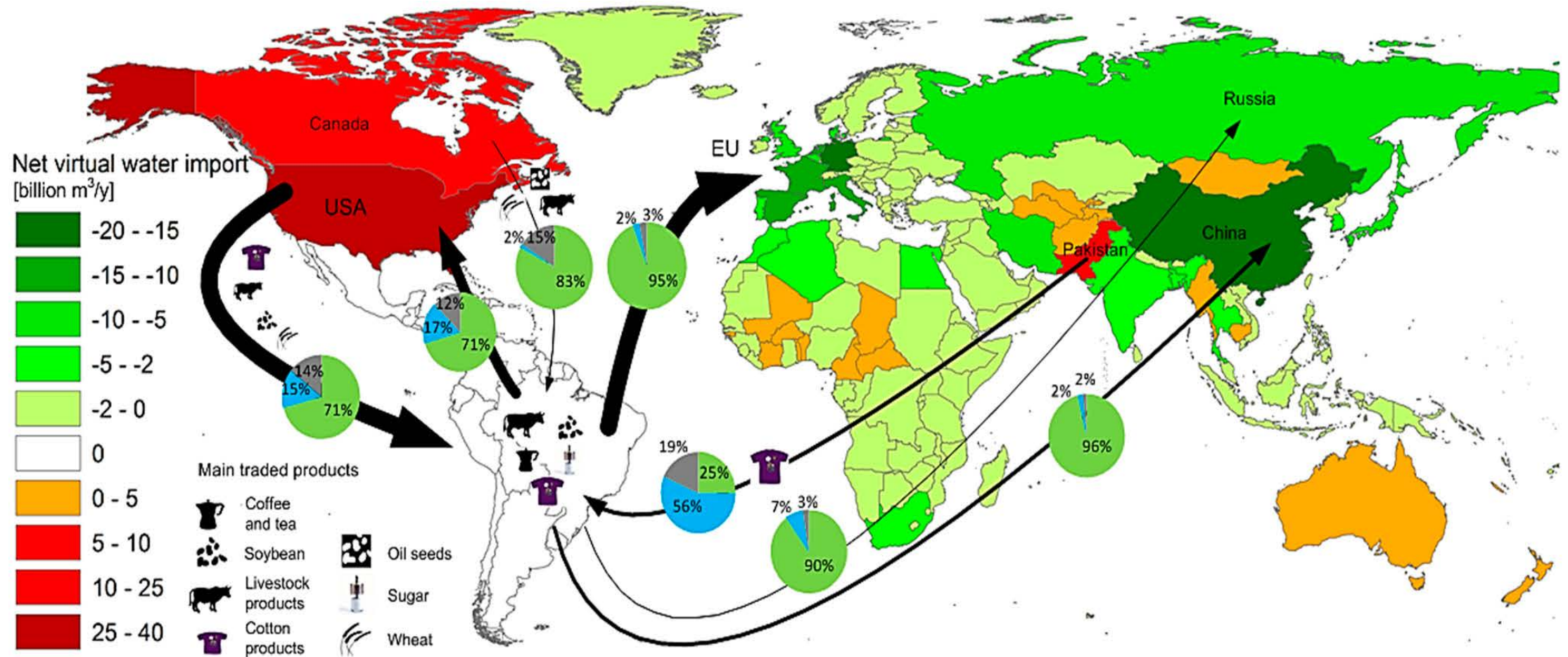
WATER USES for AGRICULTURE and INDUSTRIES



Water withdrawal ratios by continent



Virtual water' trade in Latin America and Caribbean (LAC)



Source: Mekonnen et al., 2015

Main Message 1

Achieving SDG 6 is essential for progress on all other SDGs, and vice versa

- *What does that mean for implementing SDG 6, and the whole 2030 Agenda?*
- *How to value water right?*
- *Revenue feedback for further investments (create a 'virtuous circle')?*

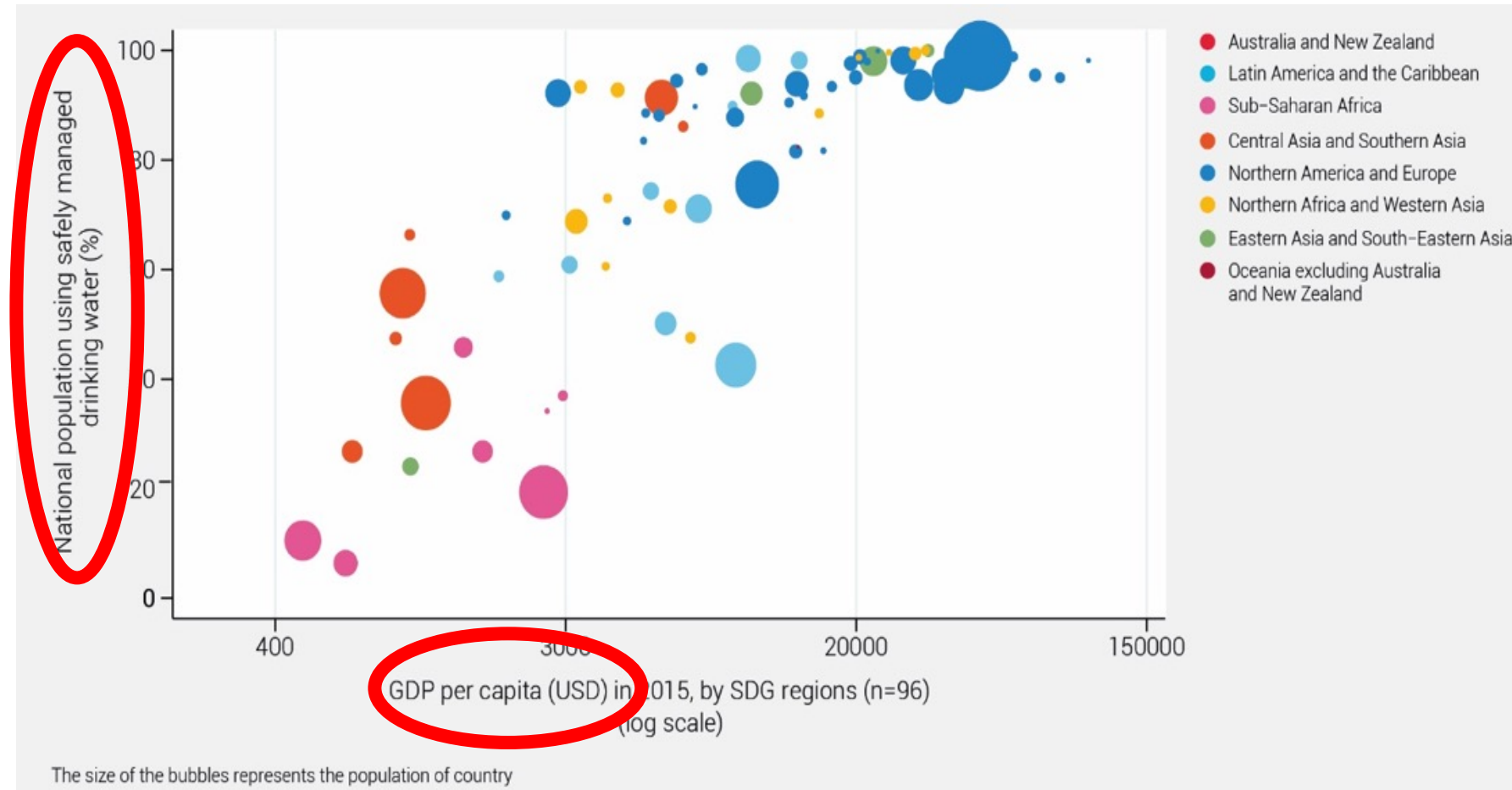


...e natural environment and unsustainable water resources, ... 45 per cent of the ... (GDP), 52 per cent ... and 40 per cent of global ... withdrawals were ... requires water to ... biofuels, extract ... dropower.

Main Message 2

Eliminating inequalities is essential:

Effective policies, strategies and subsidies must be developed to ensure no one is left behind.



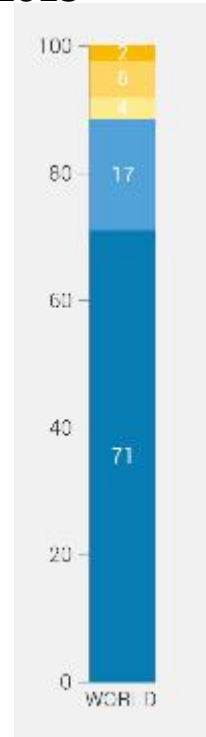
6.1 SAFE DRINKING WATER FOR ALL



Example: SDG 6.1 Safely managed drinking water

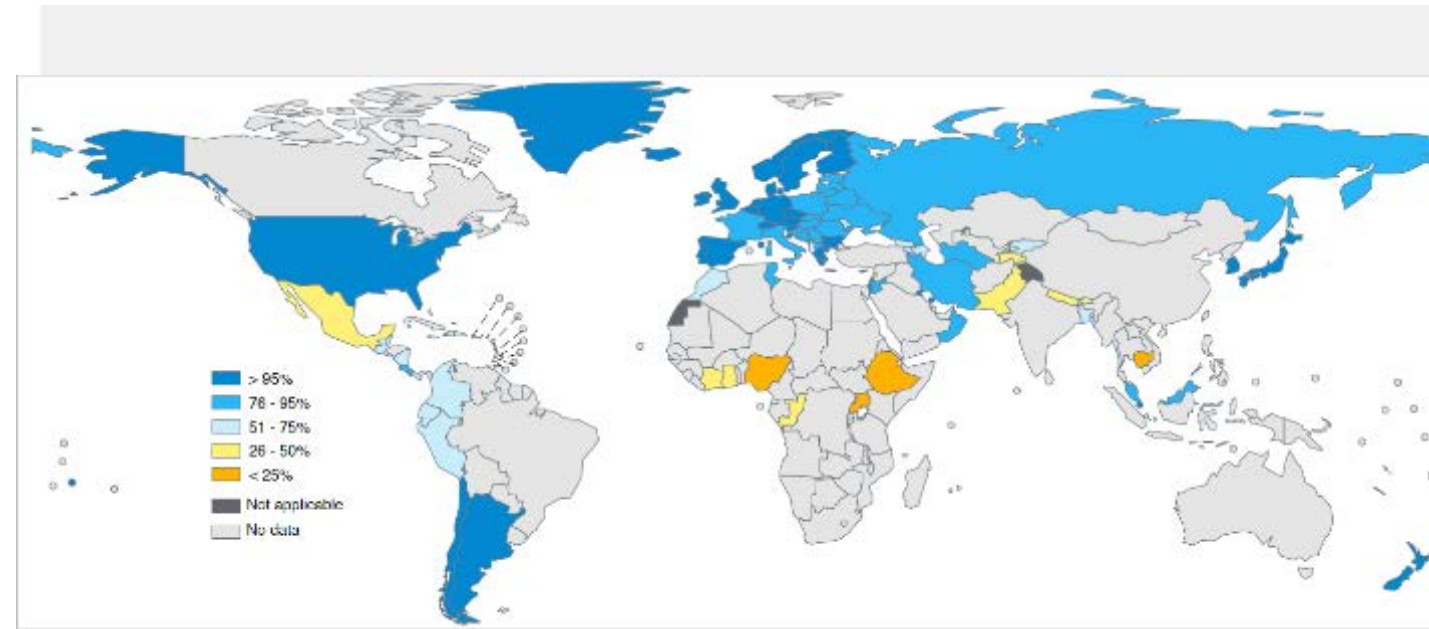
2.1 billion lacked safely managed drinking water
844 million still lacked a basic service
263 million used a limited service
159 million used surface water sources

Global drinking water coverage (%) in 2015



SERVICE LEVEL	DEFINITION
SAFELY MANAGED	Drinking water from an improved water source that is located on premises, available when needed and free from faecal and priority chemical contamination
BASIC	Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing
LIMITED	Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, including queuing
UNIMPROVED	Drinking water from an unprotected dug well or unprotected spring
SURFACE WATER	Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal

Note: Improved sources include: piped water, boreholes or tubewells, protected dug wells, protected springs, and packaged or delivered water.

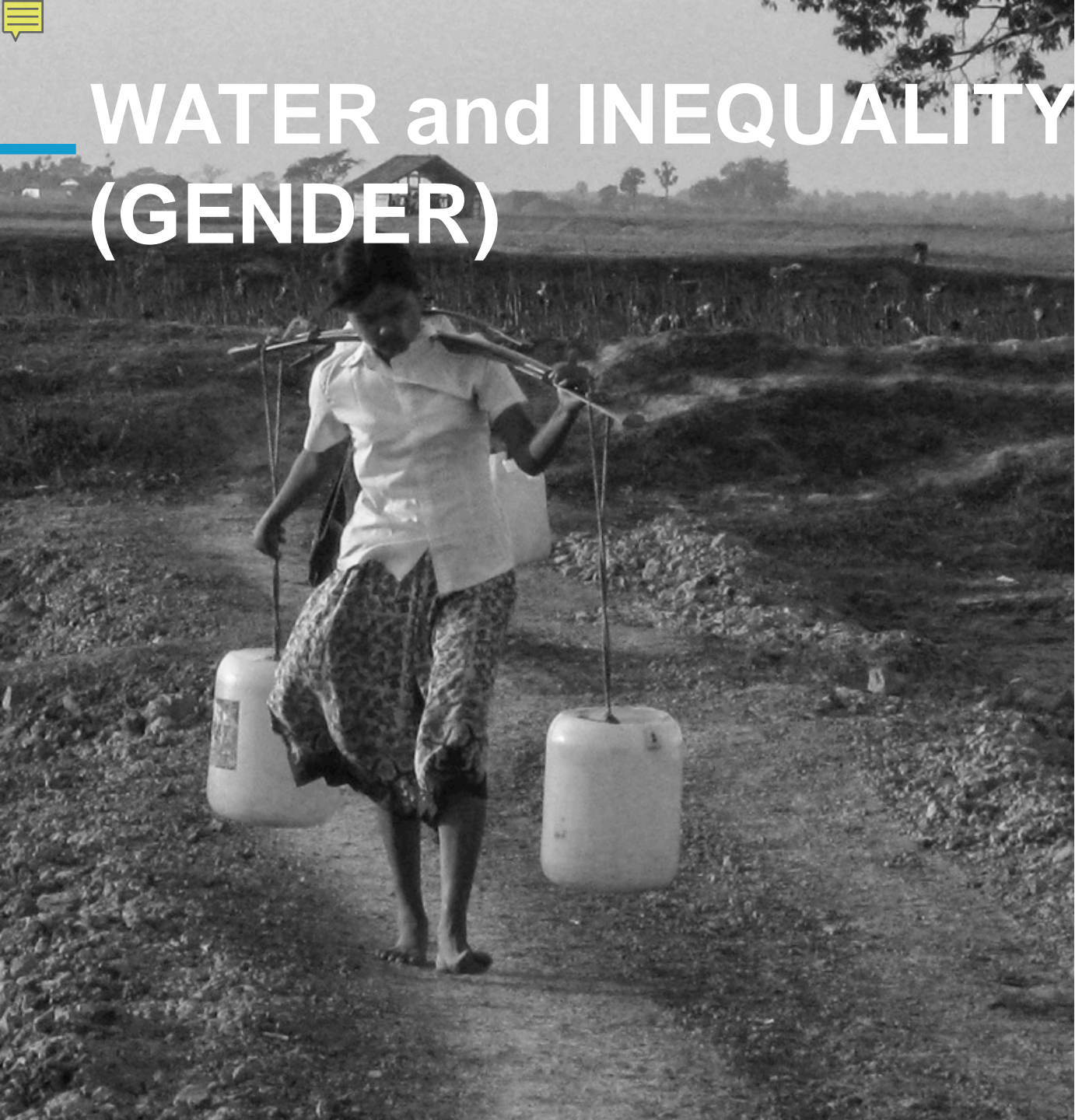


Over 5 billion people (7 out of 10) used safely managed drinking water in 2015

Proportion of population using safely managed drinking water services in 2015



WATER and INEQUALITY (GENDER)



In most countries, the burden of water collection falls mainly on women

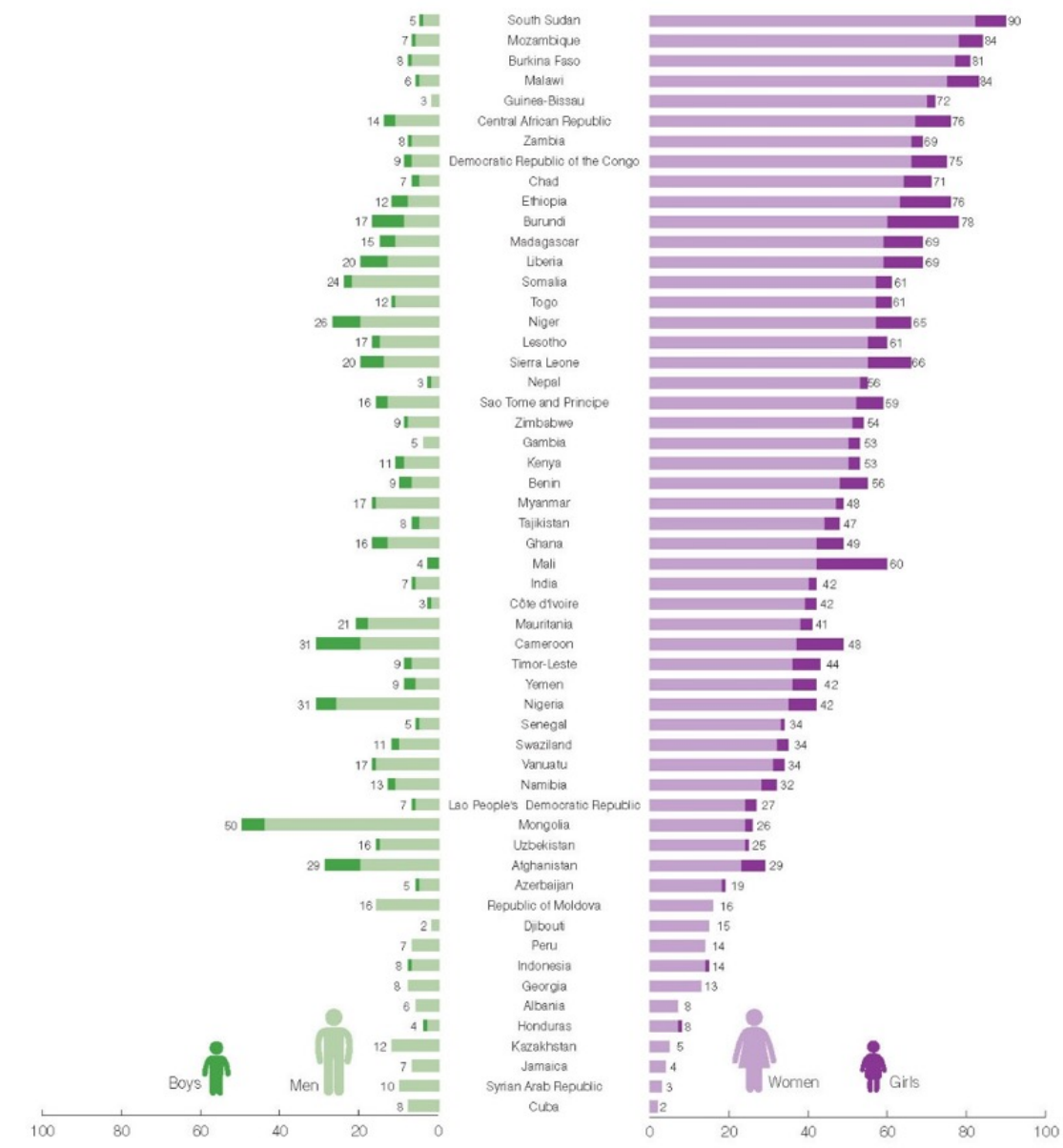
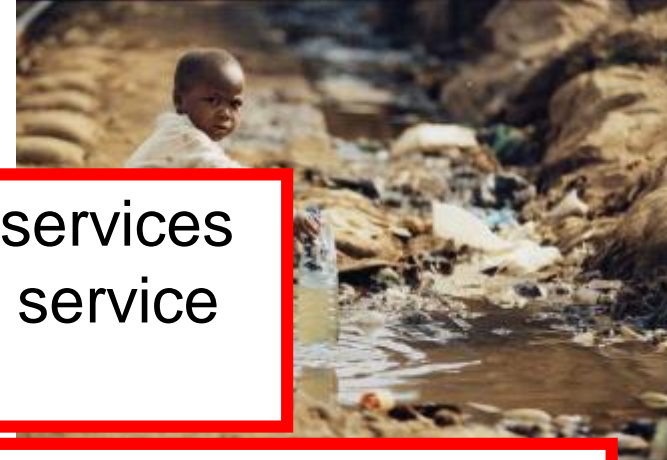


FIGURE 20 Primary responsibility for water collection in rural areas, by gender and age (%)

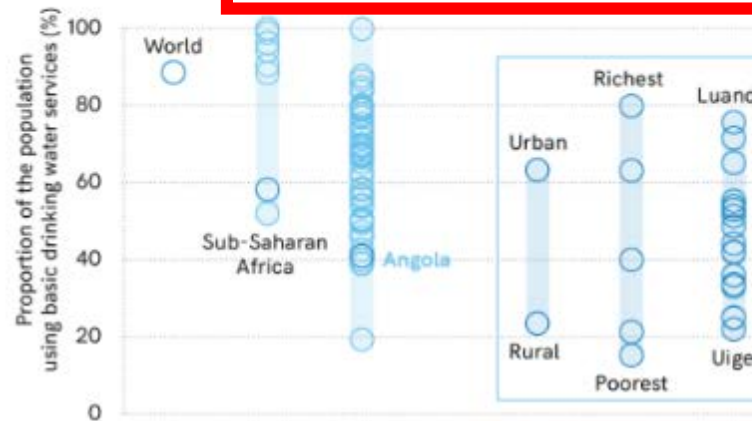
Note: Restricted to countries where at least 1 in 10 households have water off premises

WaSH and INEQUALITY

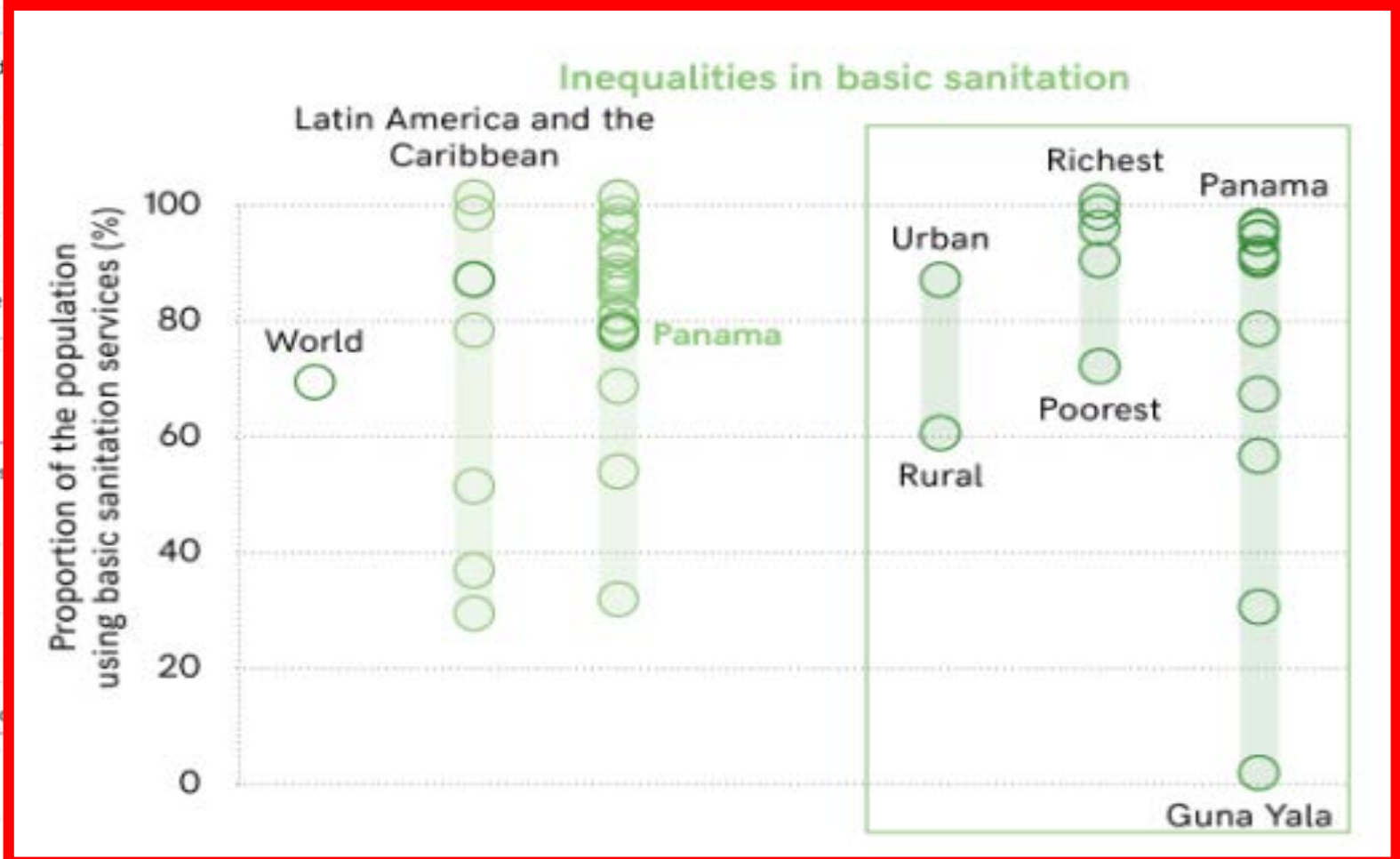
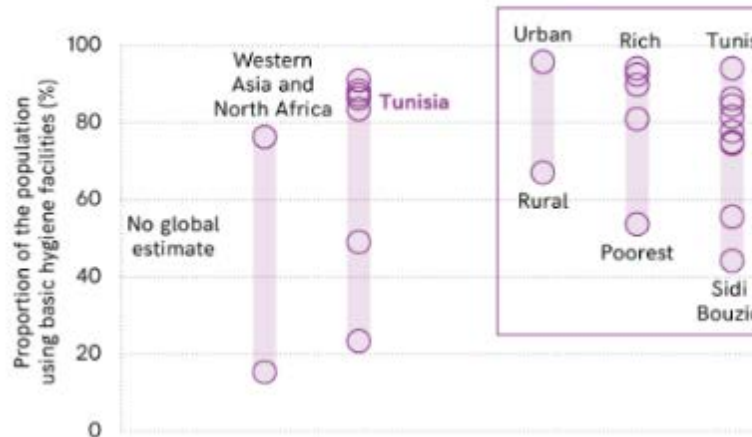


4.5 billion people lacked safely managed sanitation services
2.3 billion people still lacked even a basic sanitation service
892 million people still practised open defecation

New disaggregation



Inequalities in basic hygiene

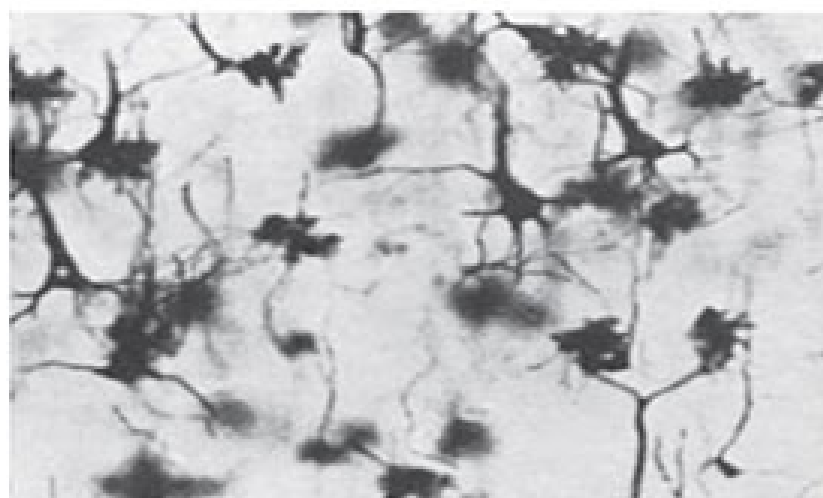


Normal



Typical brain cells
Extensive branching

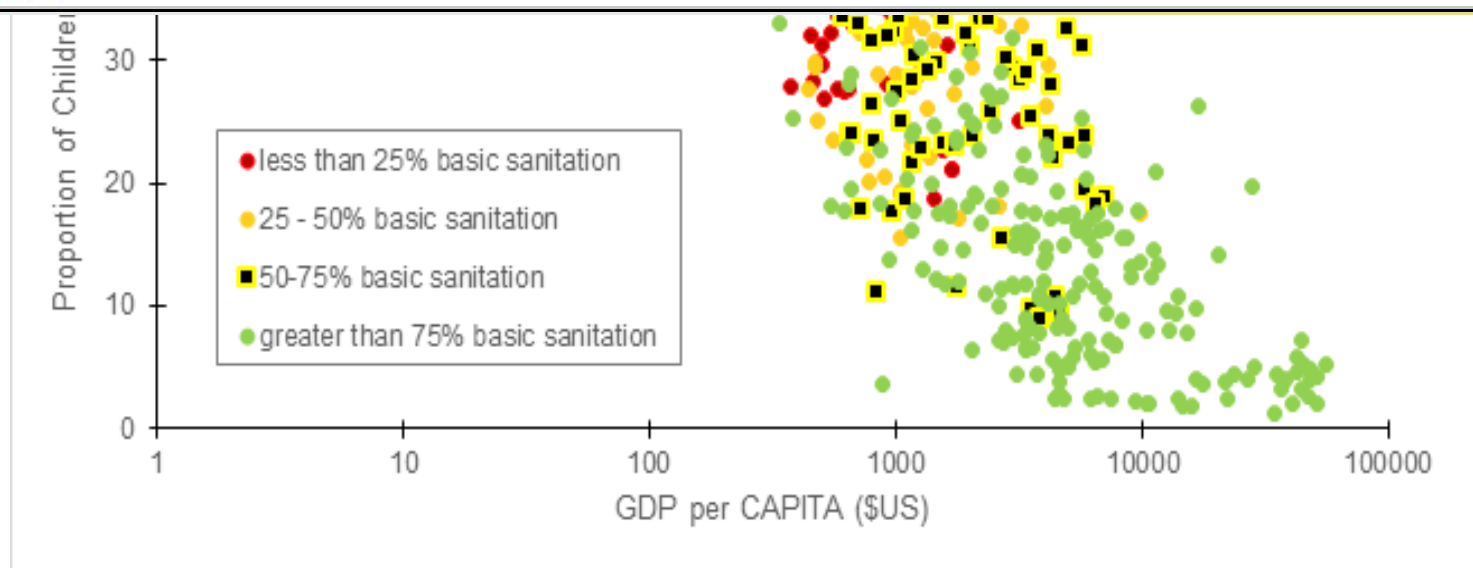
Stunted



Impaired brain cells
Limited branching
Abnormal, shorter branches



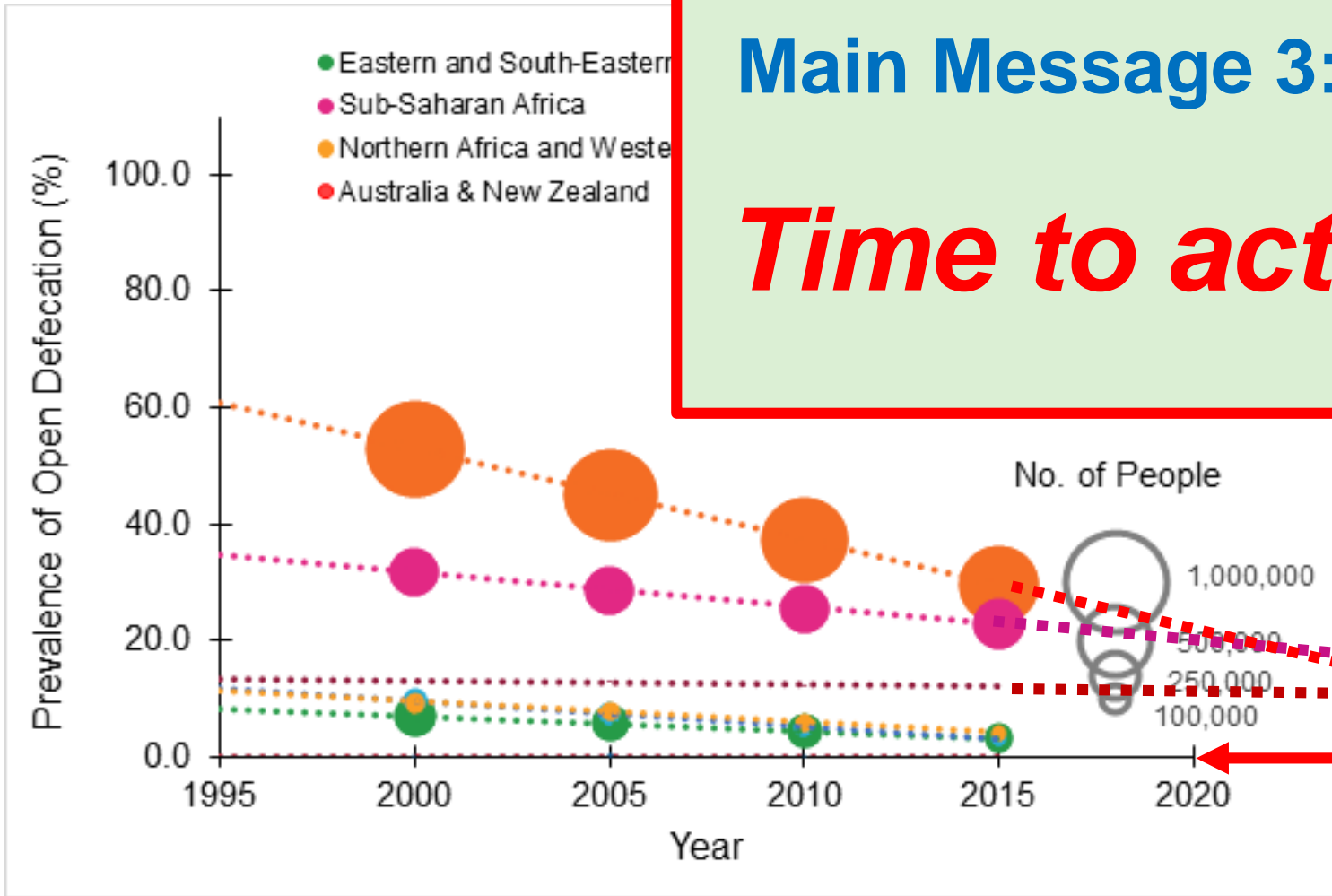
Source: Cordero E et al, 1993



SANITATION and HYGIENE: End open defecation



Main Message 3:
Time to act now!

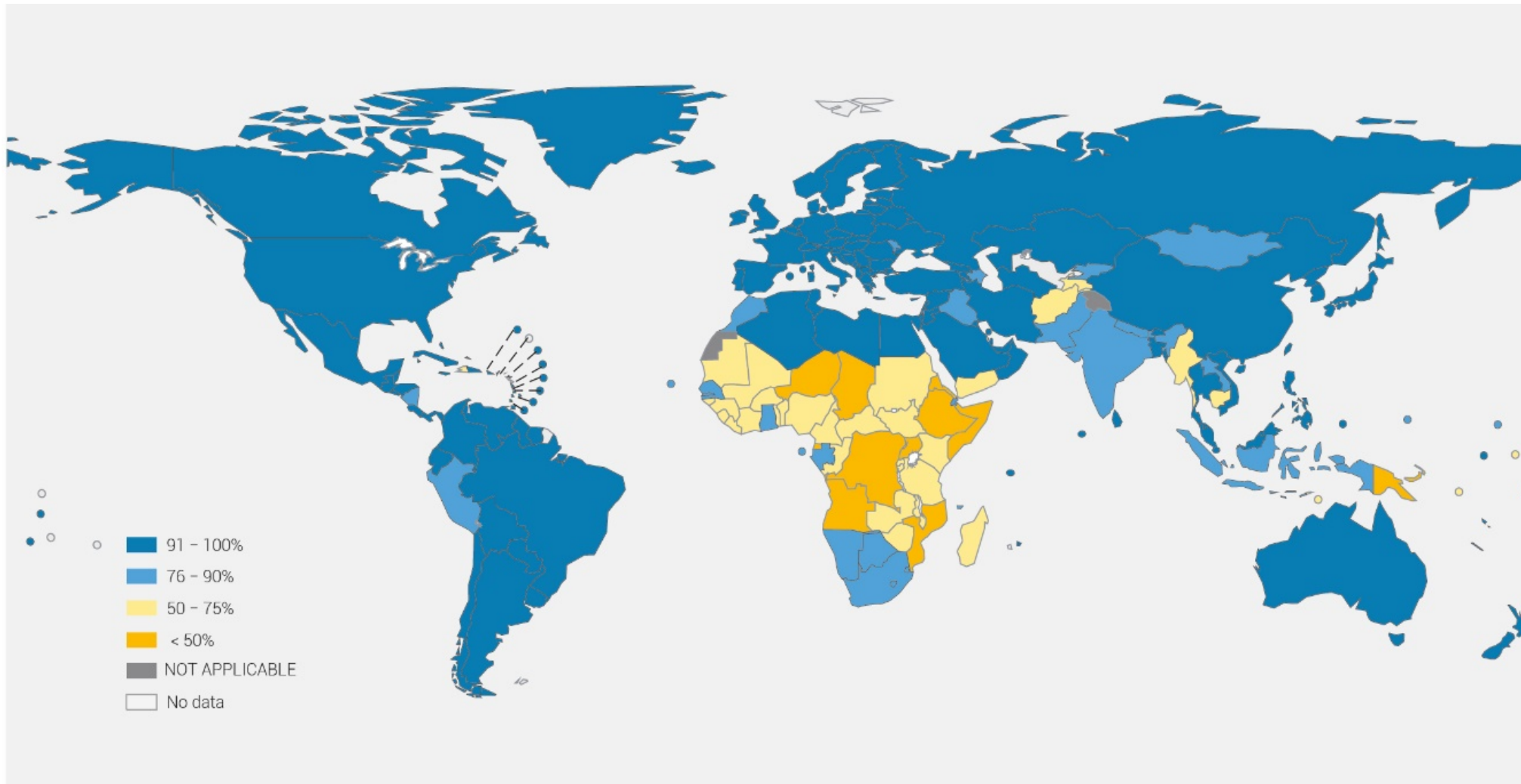


Faster progress is required to end open defecation by 2030, especially in rural areas

Not zero!

Main Messages 3:

The time to act on **SDG 6** is now



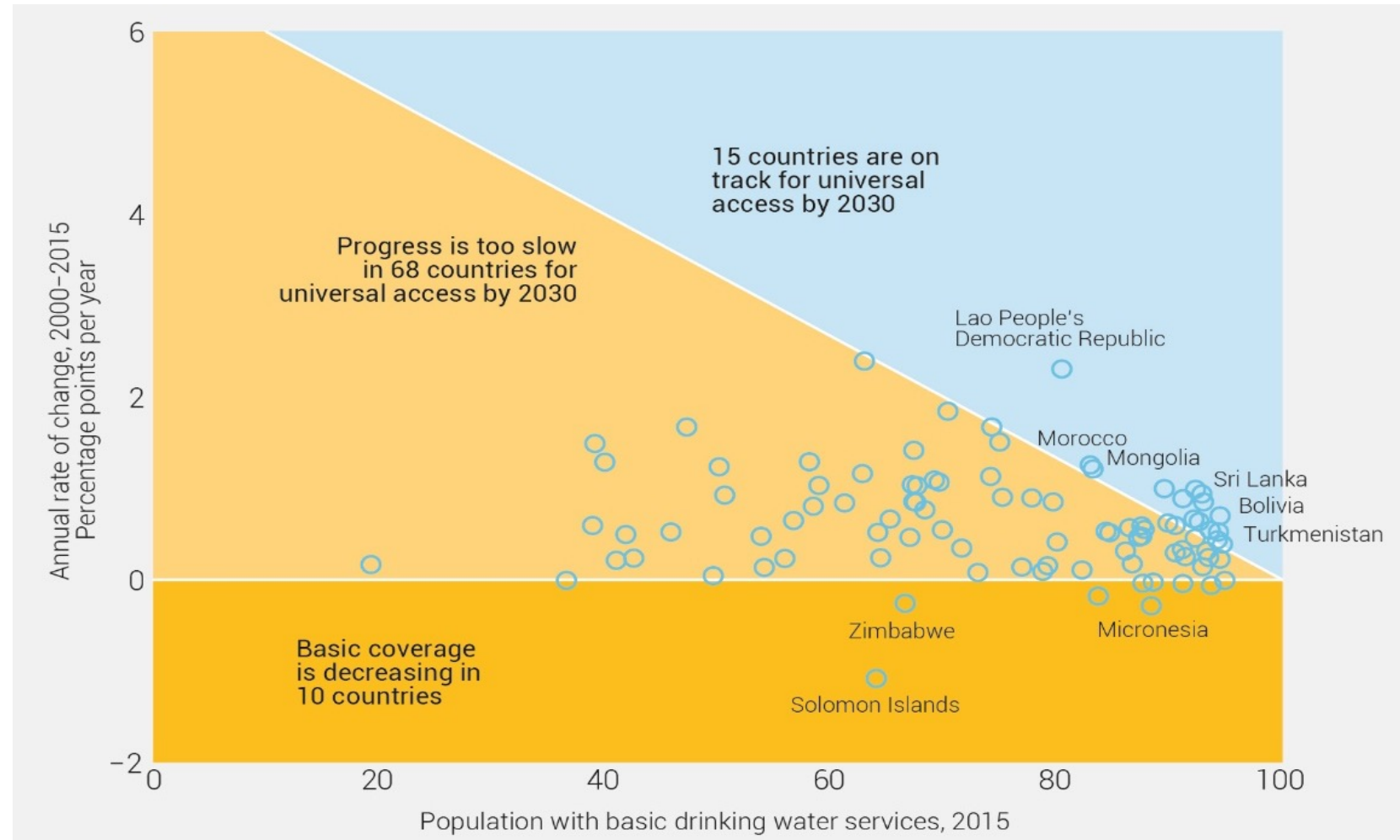
Example:
Basic Water
Supply



Main Messages 3:

The time to act on **SDG 6** is now

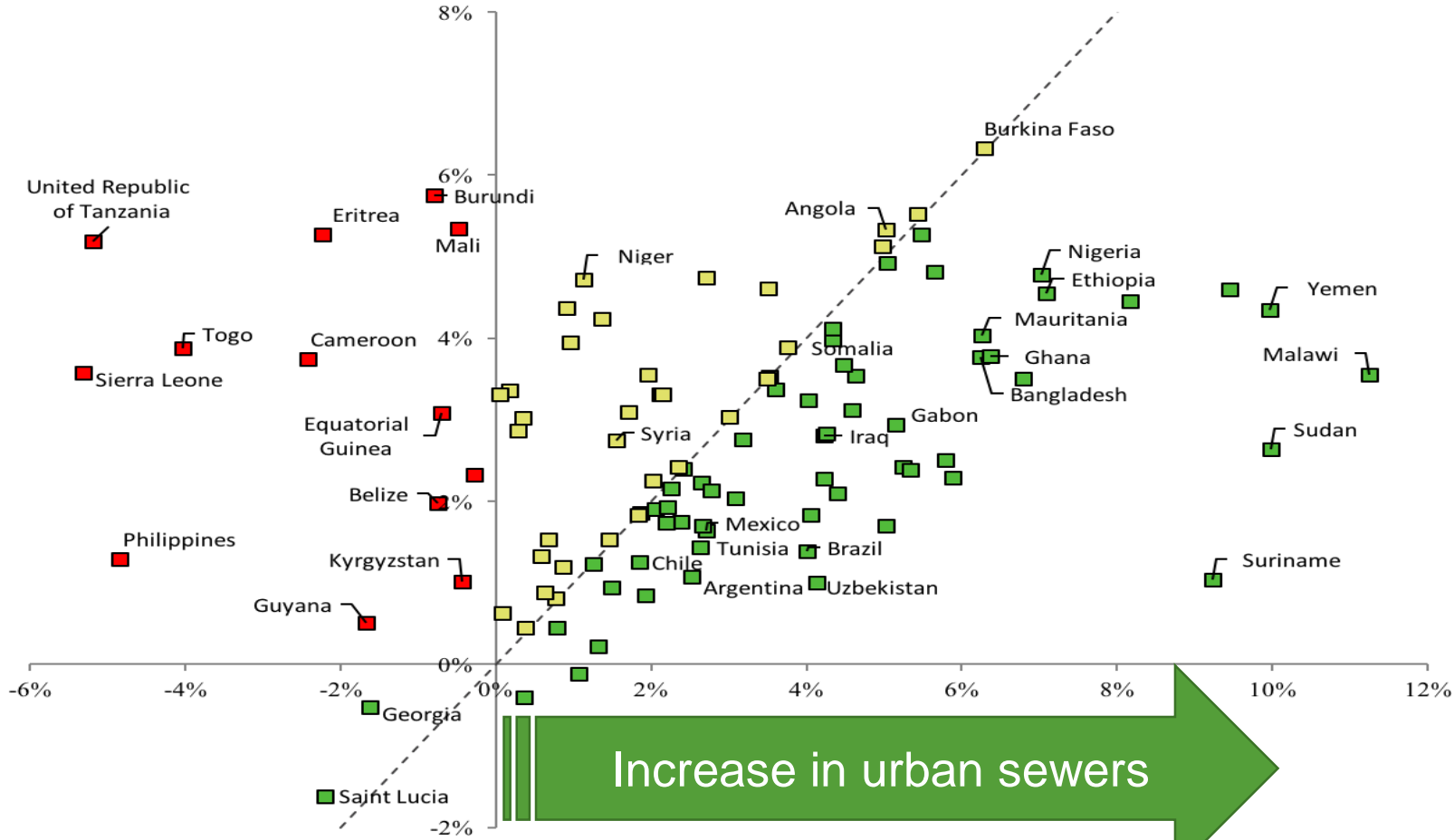
Between 2000 and 2015, the global population using at least a basic drinking water service increased from 81% to 89%. **Only one in five countries** with less than 95% coverage of basic service in 2015 is **on track** to achieve universal basic water services by 2030.



WATER and URBANISATION

Increase in urban population

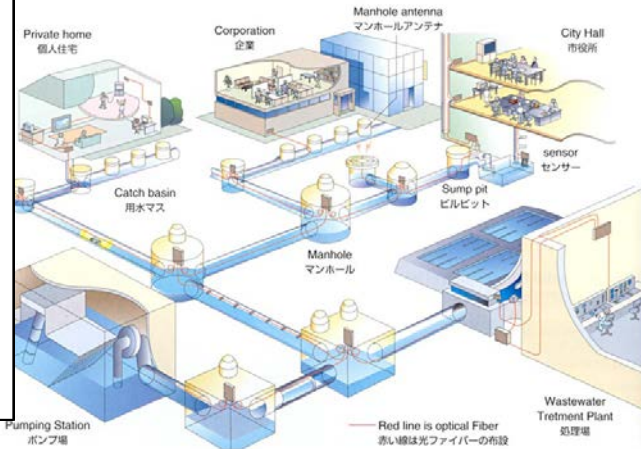
Annual percentage change in urban population (2000-2015)



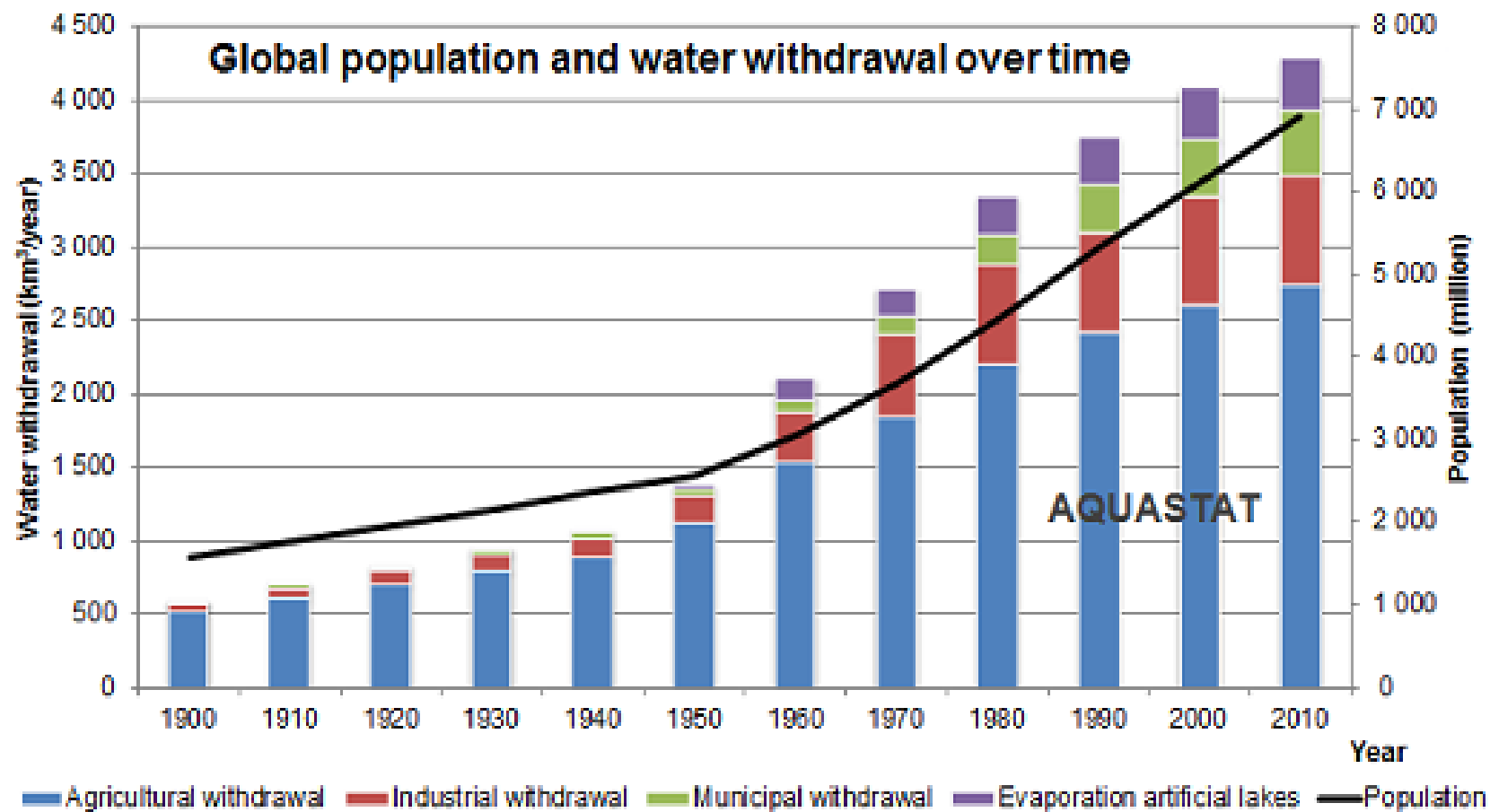
Increase in urban sewers

Annual percentage change in sewer coverage in urban areas (2000-2015)

■ Keeping up ■ Not keeping up ■ Falling behind



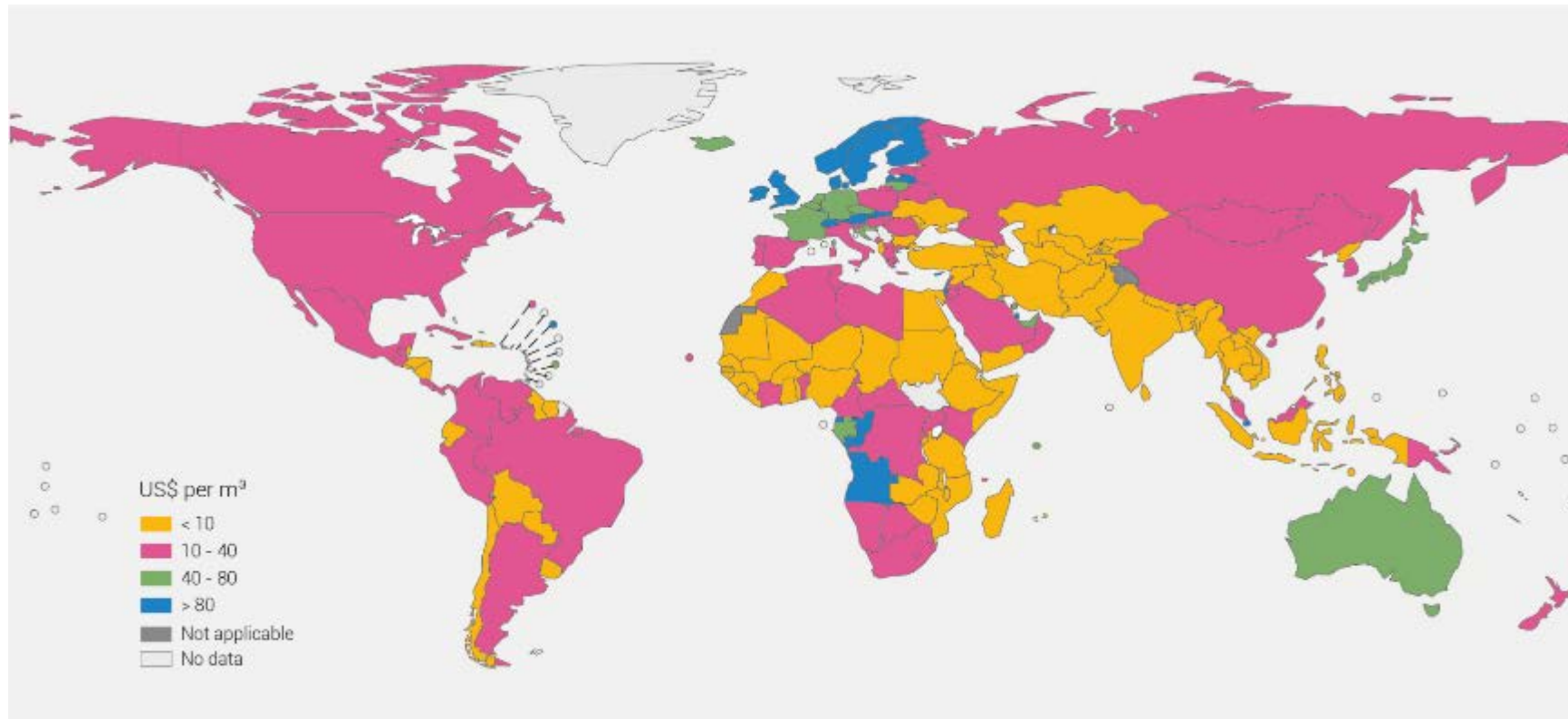
GLOBAL WATER WITHDRAWALS OVER TIME



SDG 6.4.1

Change in water-use efficiency over time

Water-use efficiency is defined as the gross value added per unit of water used, expressed in US\$/m³.



Water-use efficiency (US\$/m³)

Countries at a different level of general development have comparable values of water-use efficiency.

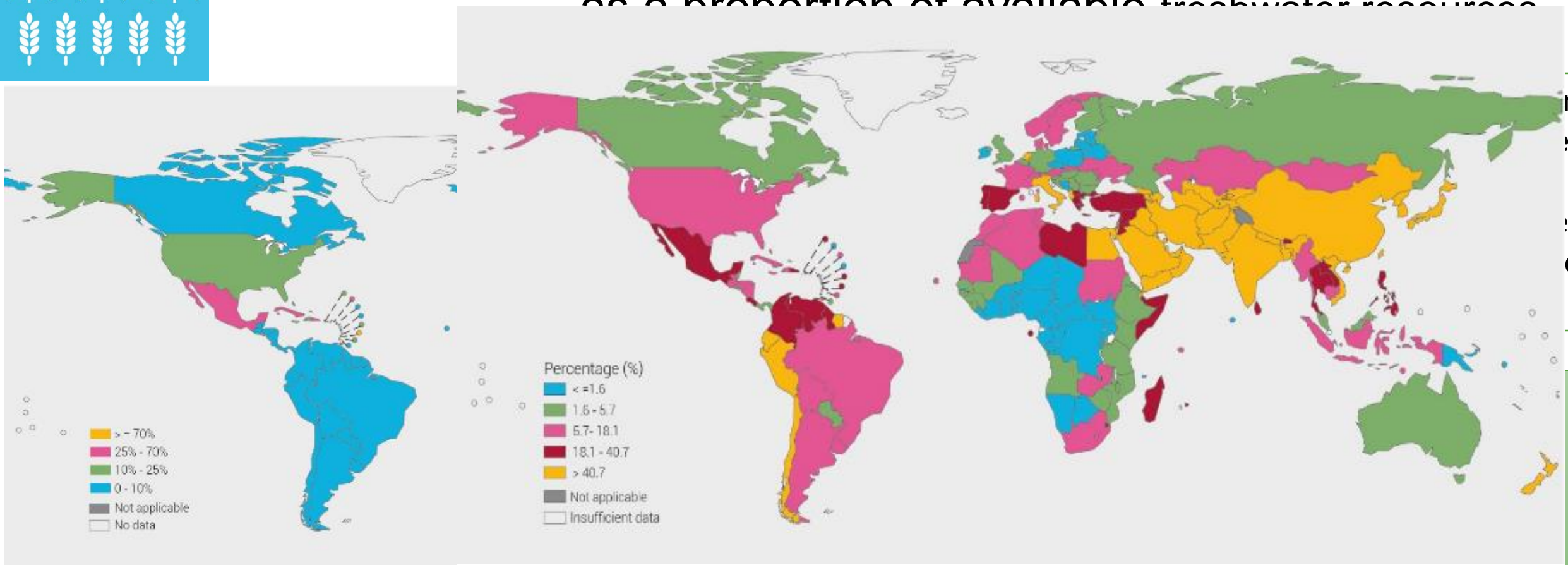
Increasing water-use efficiency means using less water while carrying out society's economic activities.

This can be done by increasing agricultural water productivity and reducing water losses, such as tackling leakage in municipal distribution networks.

6.4 MORE EFFICIENT WATER USE



SDG 6.4.2 Level of water stress: freshwater withdrawals as a proportion of available freshwater resources



Level: **Area equipped for irrigation as a percentage of cultivated area**

Sub-Saharan Africa, has a low level of water stress at 0%, but still faces the large differences between the wetter north and drier south and the degree of water resources development.

Data source: FAO, 2018

Main Message 4

Developing capacity and using effective smart technologies for managing water wisely

The case of AGRICULTURE

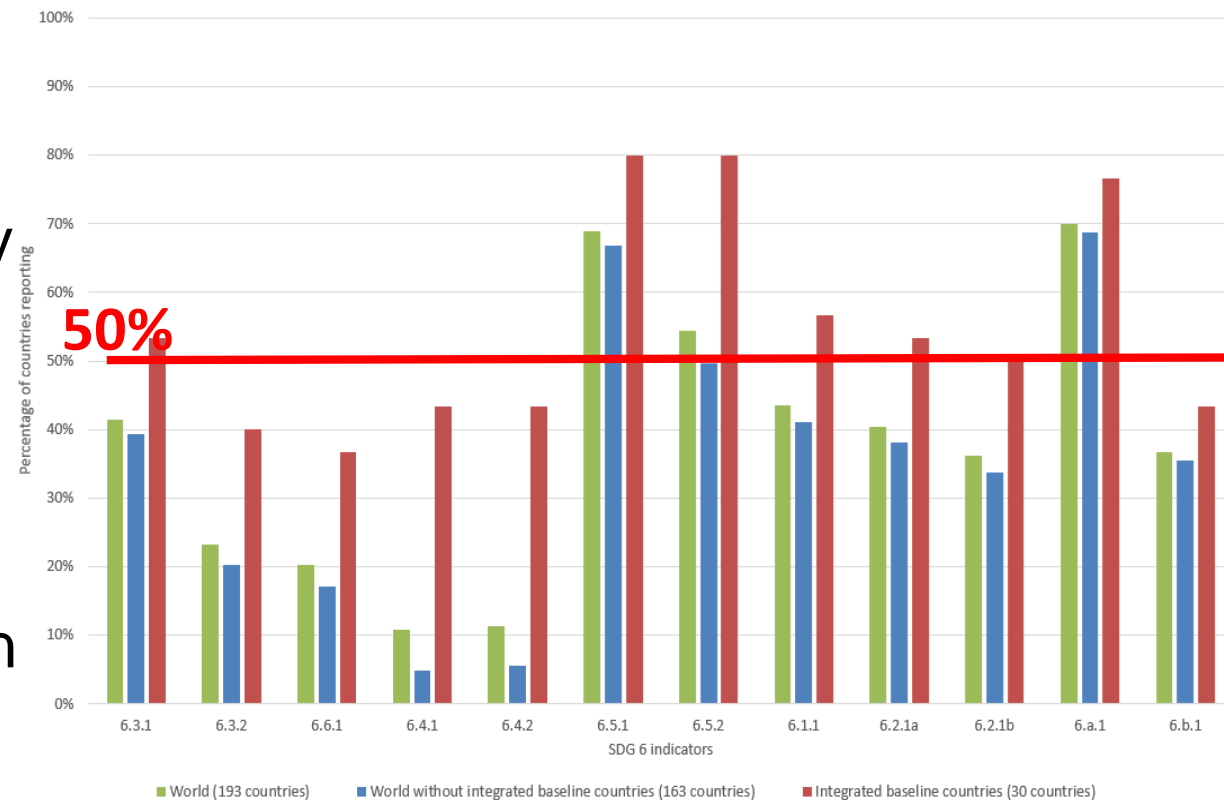


Effective water management needs more and better data



'You cannot manage, what you do not measure'

- Reliable (good quality), consistent and disaggregated
- Increase transparency and accountability
- Available and accessible (sharing)
- Less than 50% of Member States have comparable data
- Future: use latest technology (EO, citizen sciences etc.)
- Increase resource and develop capacity!



Main Message 5

Improving Governance and Public Participation



Implement IWRM

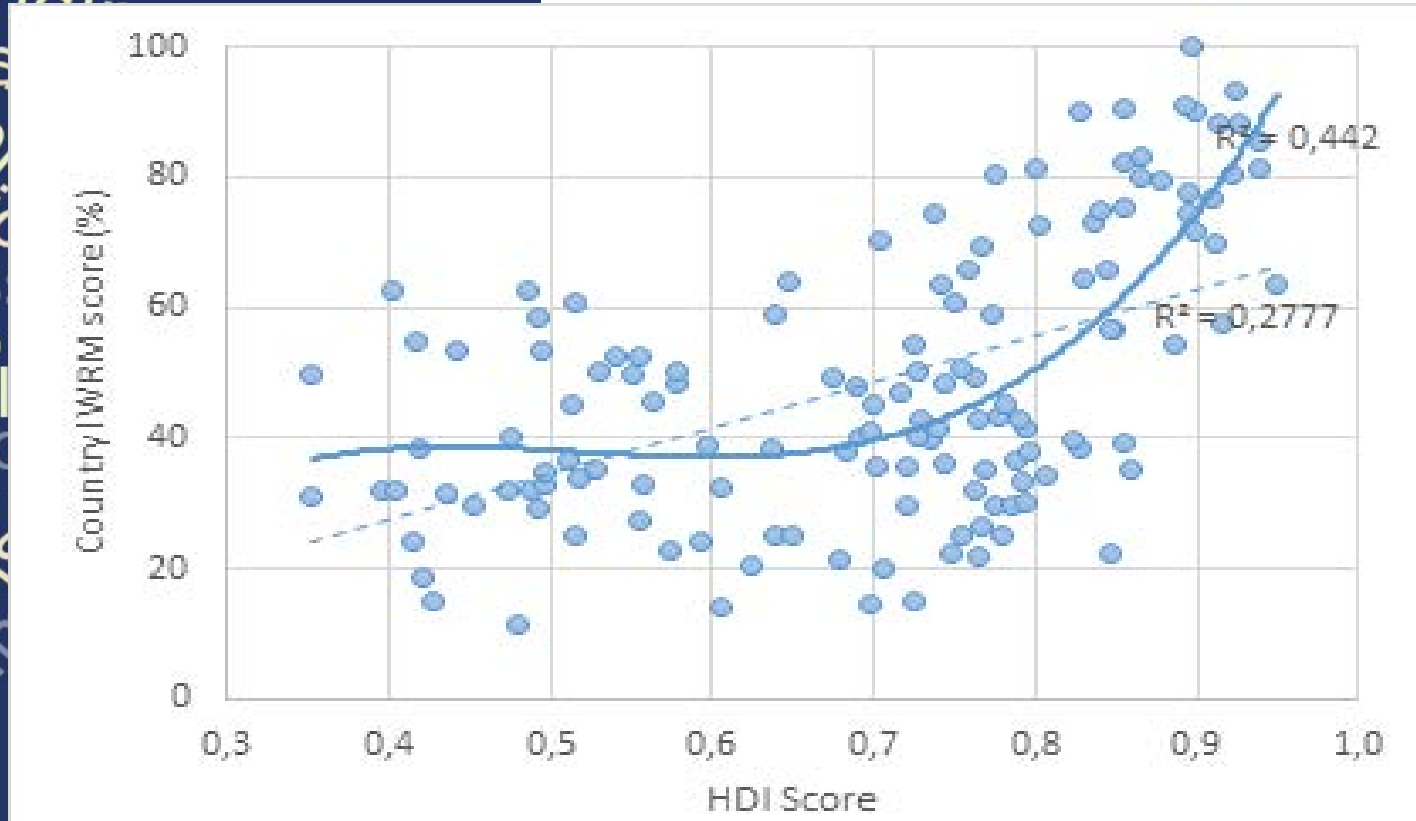
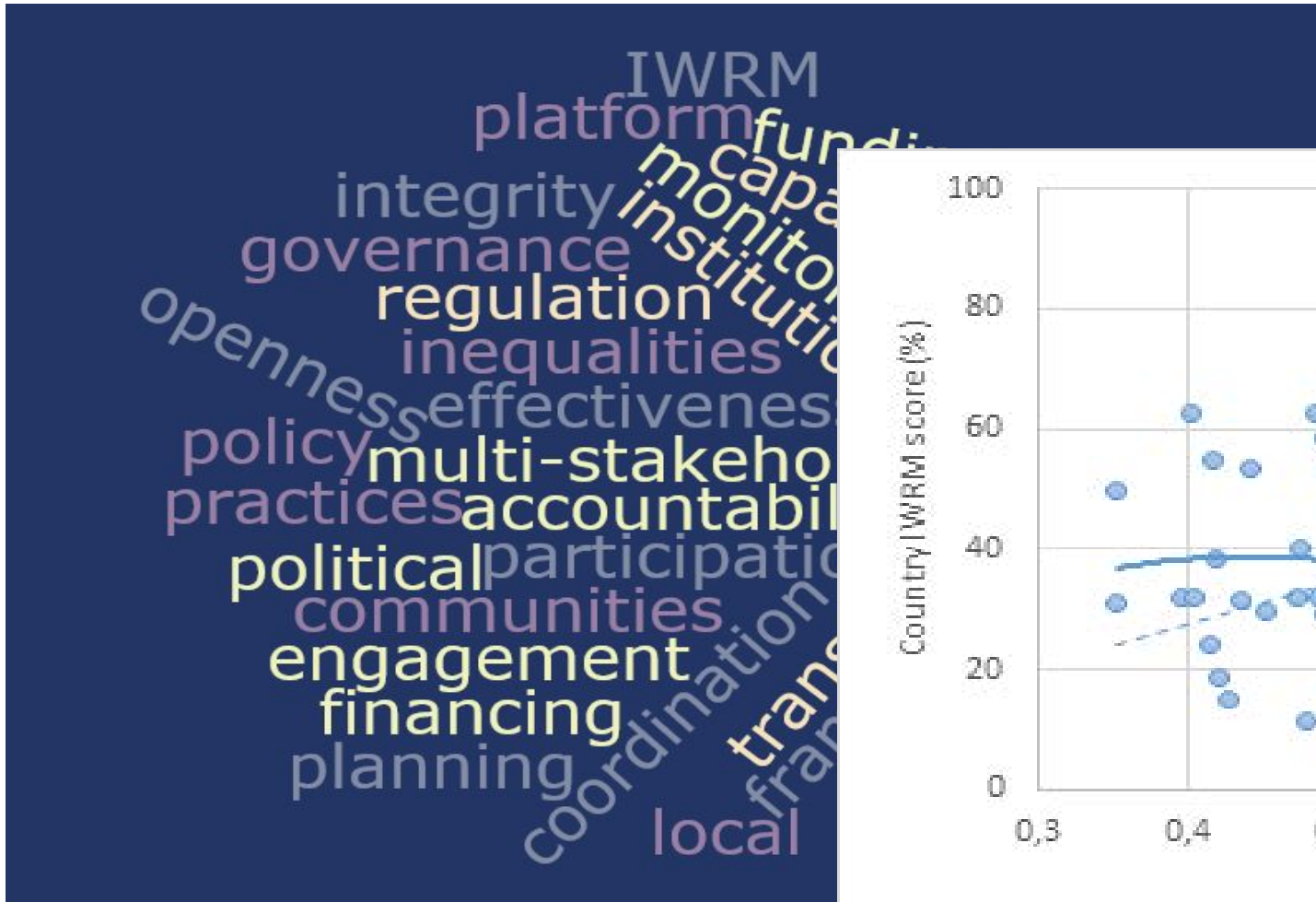
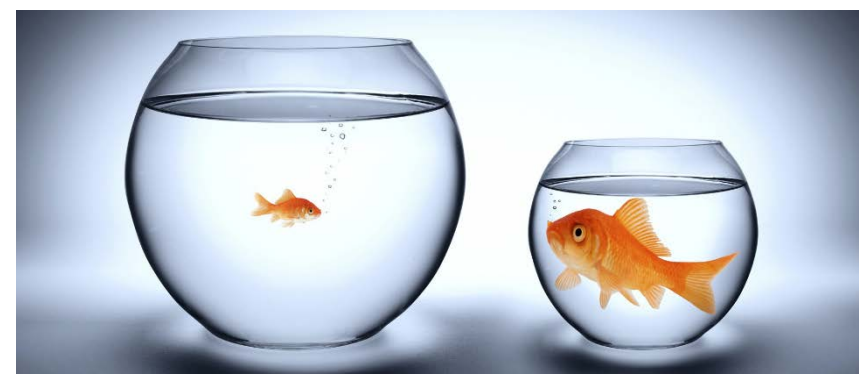
Integration across water and water-using sectors and effective **transboundary governance** frameworks is essential to ensure that limited water resources are shared effectively among many competing demands.



Public participation is critical to water management.

Community **participation** in decision-making can yield many benefits, but better means of measuring quality and effectiveness of such participation are needed.

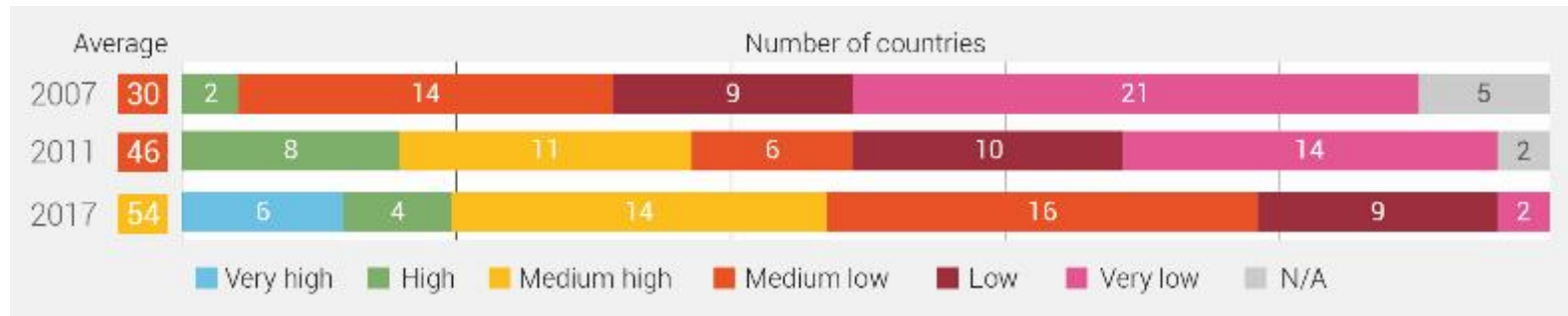
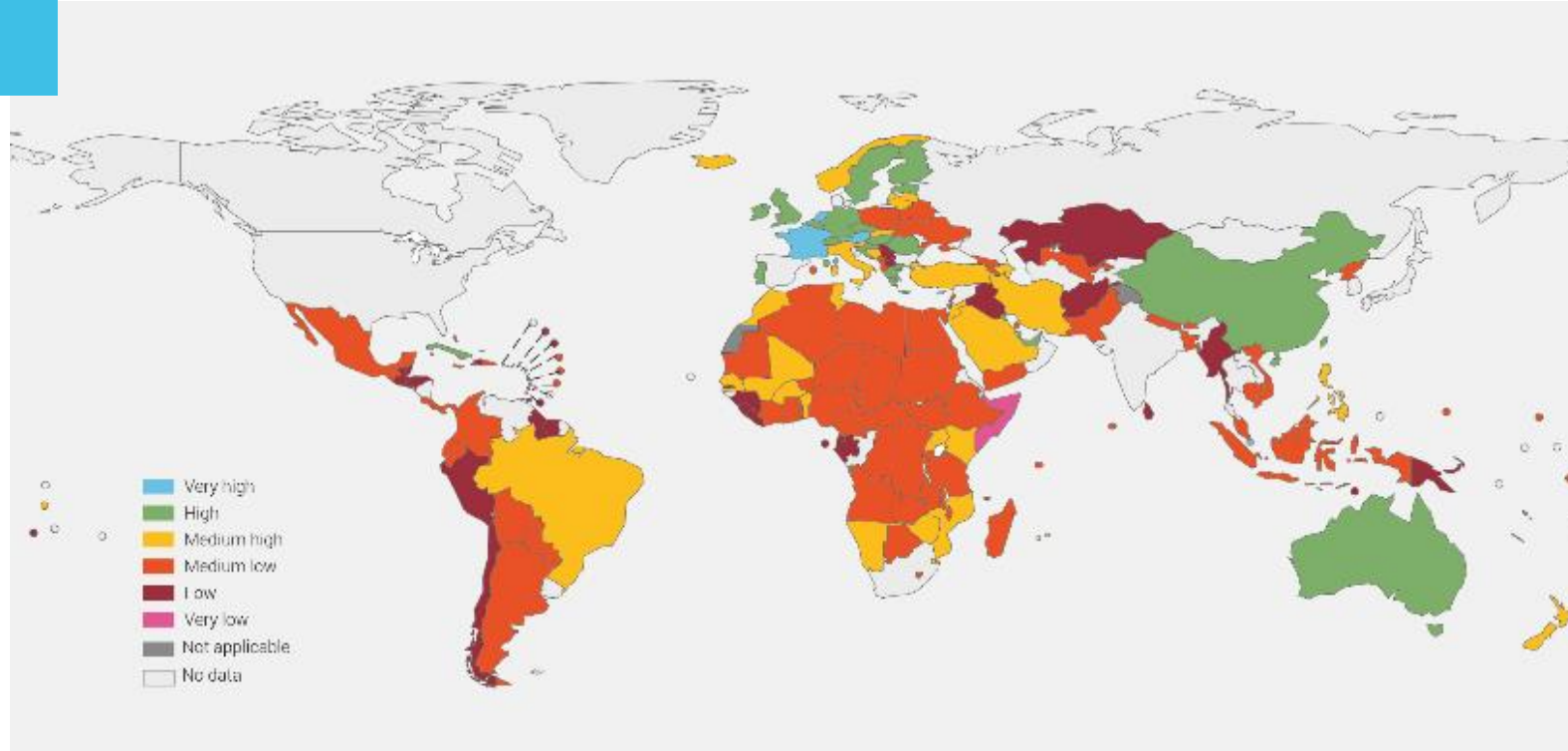
Good water governance is essential



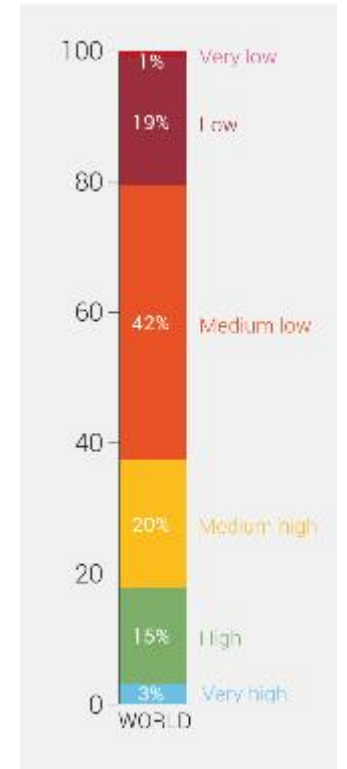


SDG 6.5.1 Degree of implementation of IWRM

38% of countries reported at least medium-high IWRM implementation in 2017/18



Progress in implementation of IWRM, 2007–2017

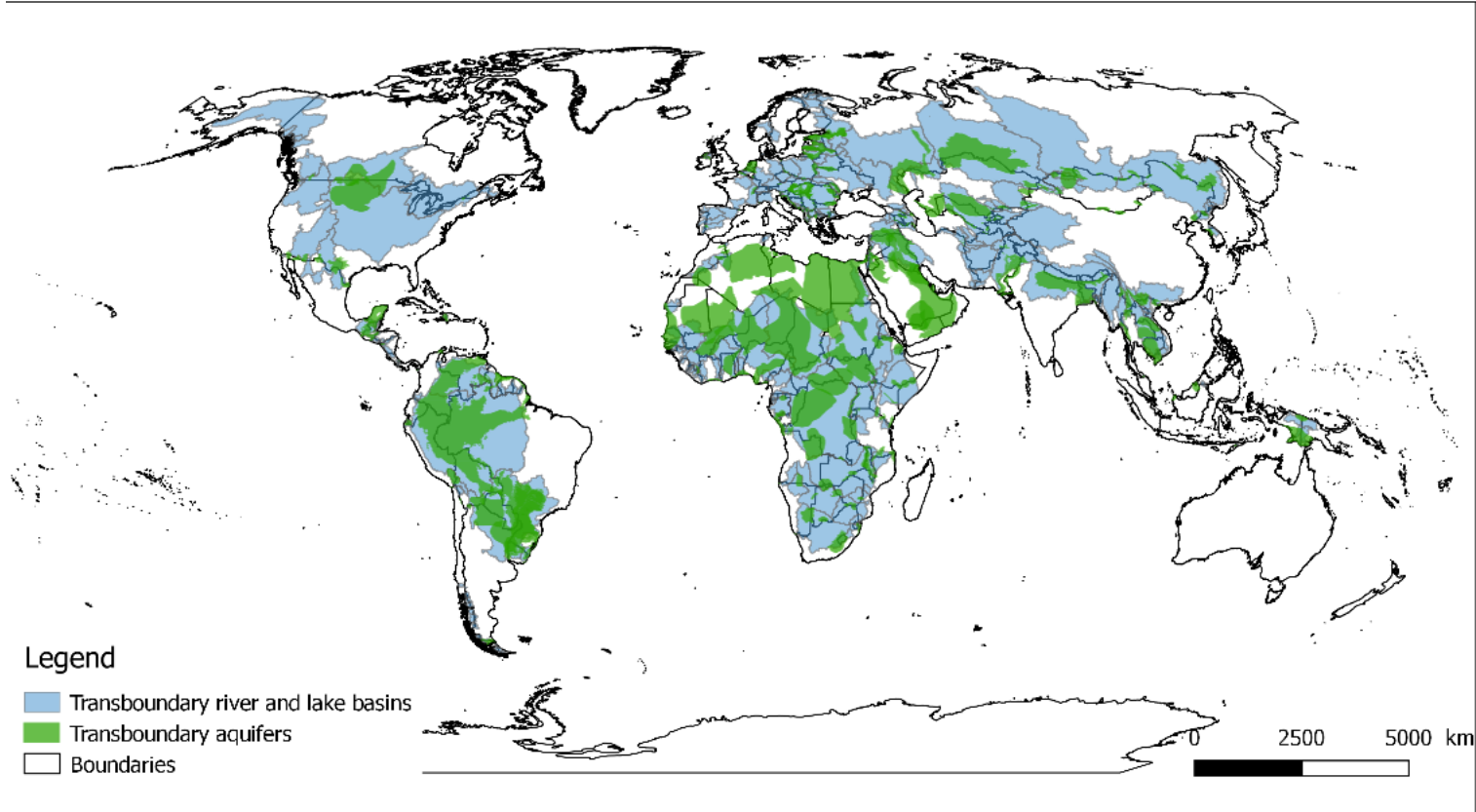


IWRM implementation in 2017/2018



SDG 6.5.2

Proportion of transboundary basin area with an operational arrangement for water cooperation

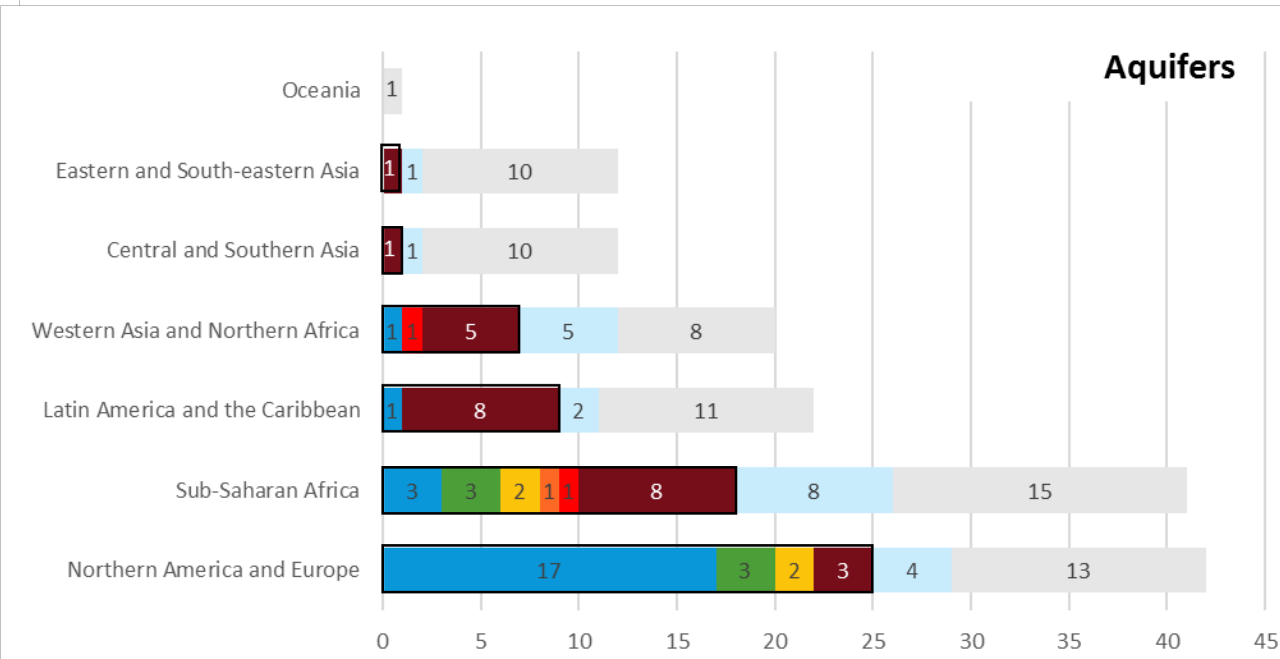
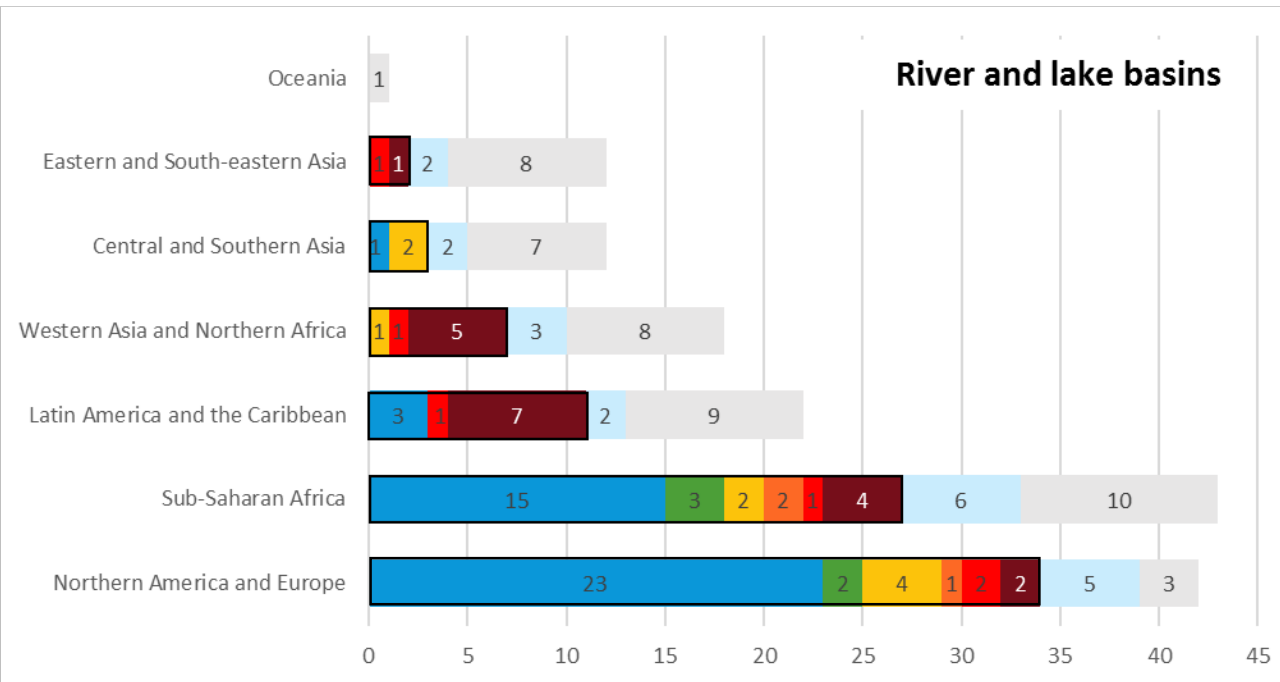


The world's 286 transboundary river and lake basins cover almost half of the Earth's surface area, over 150 countries have territory in a transboundary water basin and almost 600 transboundary groundwater aquifers (TBAs) have been identified.

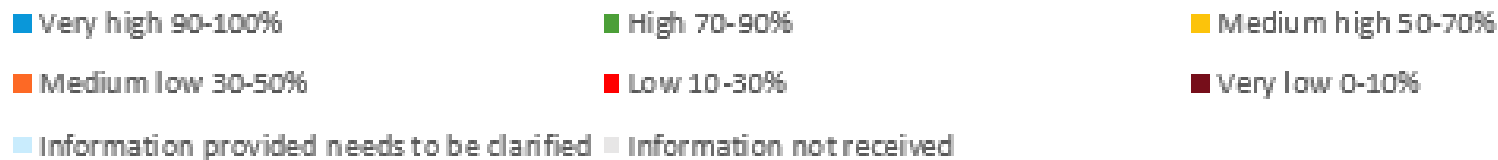


SDG 6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation

Regional breakdown of the number of countries sharing basins and level of transboundary water cooperation (based on SDG6.5.2 indicator)

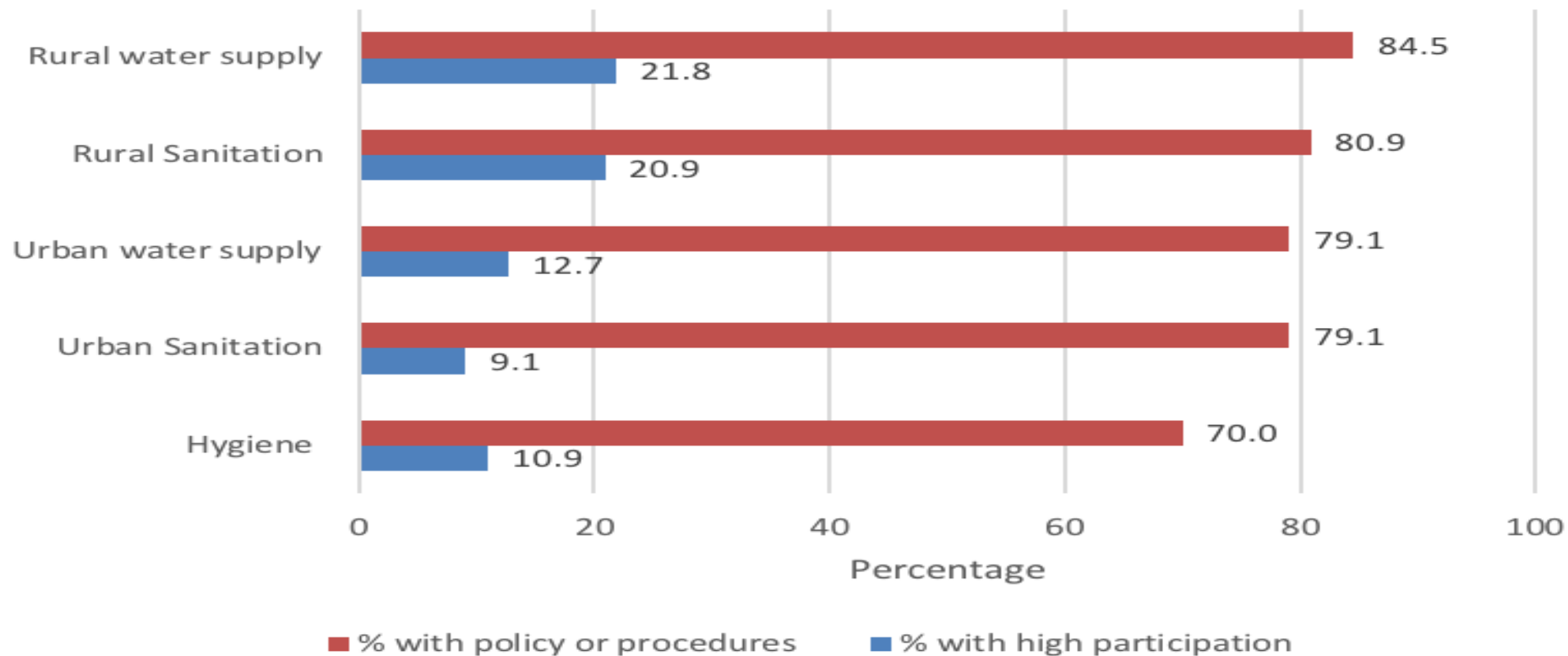


The average of the national percentage of transboundary rivers and lake basins covered by an operational arrangement is 64% and it is 47% for aquifers.





SDG 6.b Percentage of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management



Percentages of countries with defined procedures in law or policy for participation (number of countries = 110)

Source: WHO and UN-Water (2017).

Data sources: WHO and UN-Water (2017).

Main Messages 6:

Global SDG 6 targets must be localized and adapted to the country context



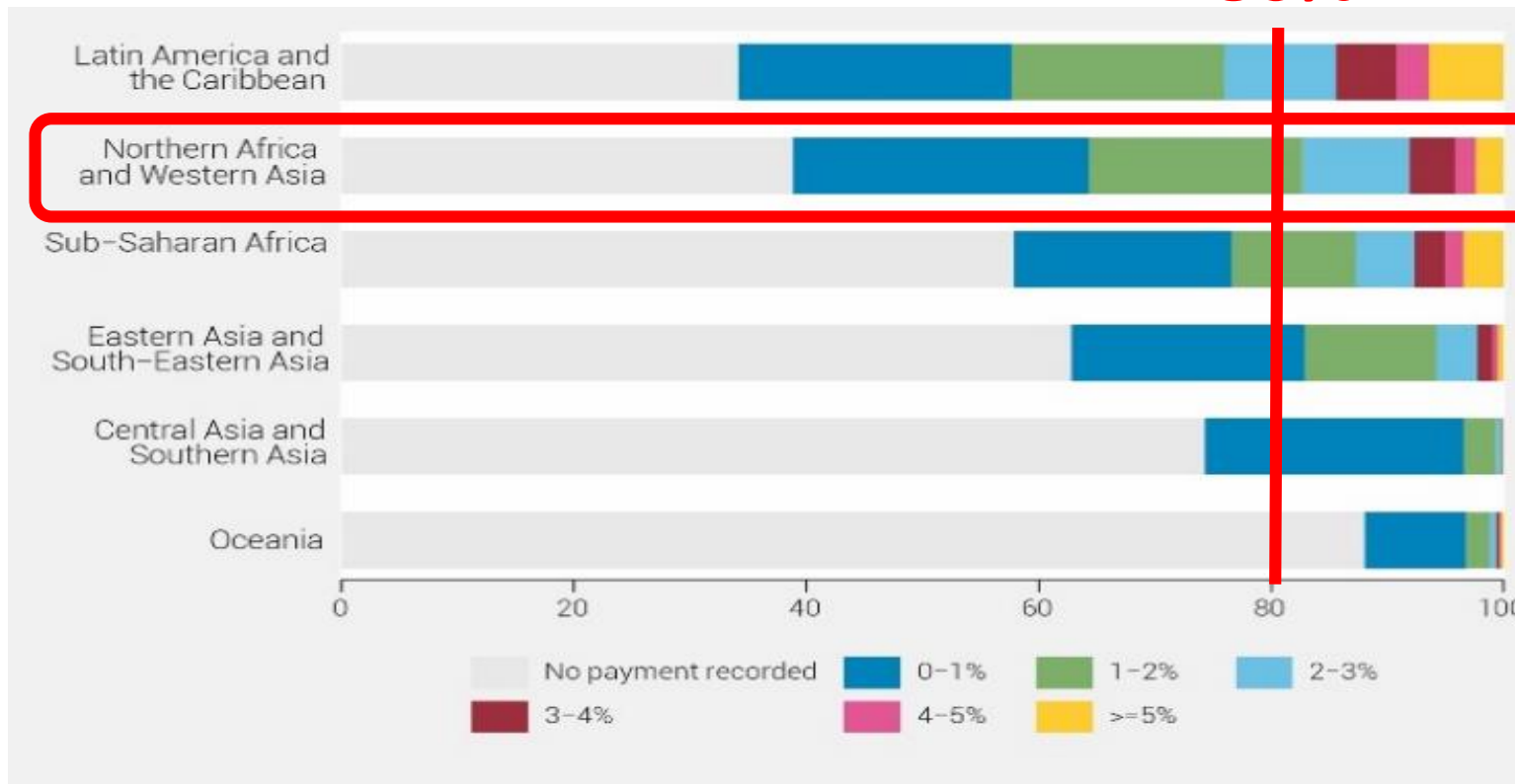


Main Message 7

Create new ways to finance water and sanitation

Why is this needed?

80%



WaSH services should be 'affordable'. This implies that payment for services should not present a barrier to access or prevent people from meeting other basic needs

Water and sanitation require a new financing paradigm

- Costs are increasing (ca. 500 bill/year); triple WASH investments to US\$114 bill./year (without O&M costs), additional water resources investments
- >80% of participating countries reported insufficient financing for national WaSH targets
- WaSH ca. 5% of total ODA disbursements; aid commitments have declined in SSA



Thank you!



This work is only possible due to the support from:

UN-Water Task Force SDG 6 Synthesis Report

CEO Water Mandate, FAO, ILO, UNDP, UNECE, UN-Environment, UN-Habitat, UNESCO WWAP (coordinator), UNICEF, UNU, UN-Water TAU, WHO, WMO and World Bank.

Contribution to data analysis by UNESCO–IHP, CDP,

Main Partners

Federal Ministry for Economic Cooperation and Development (BMZ), Germany

Swiss Agency for Development and Cooperation (SDC), Switzerland

Ministry of Infrastructure and Environment, Netherlands

Swedish Development Cooperation (SIDA), Sweden

Ministry of Foreign Affairs, Italy

Thank you!!!



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Shedding
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6 CLEAN WATER
AND SANITATION



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