TWAP
TRANSBOUNDARY WATERS ASSESSMENT PROGRAMME

Transboundary River Basins Assessment:
Global uses, downscaling opportunities and the road ahead

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UNEP
gef
UNEP-DHI PARTNERSHIP
Centre on Water and Environment
UNEP
DHI
UNESCO
United Nations Educational, Scientific and Cultural Organization
International Hydrological Programme
UNESCO
United Nations Educational, Scientific and Cultural Organization
Intergovernmental Oceanographic Commission
ILEC

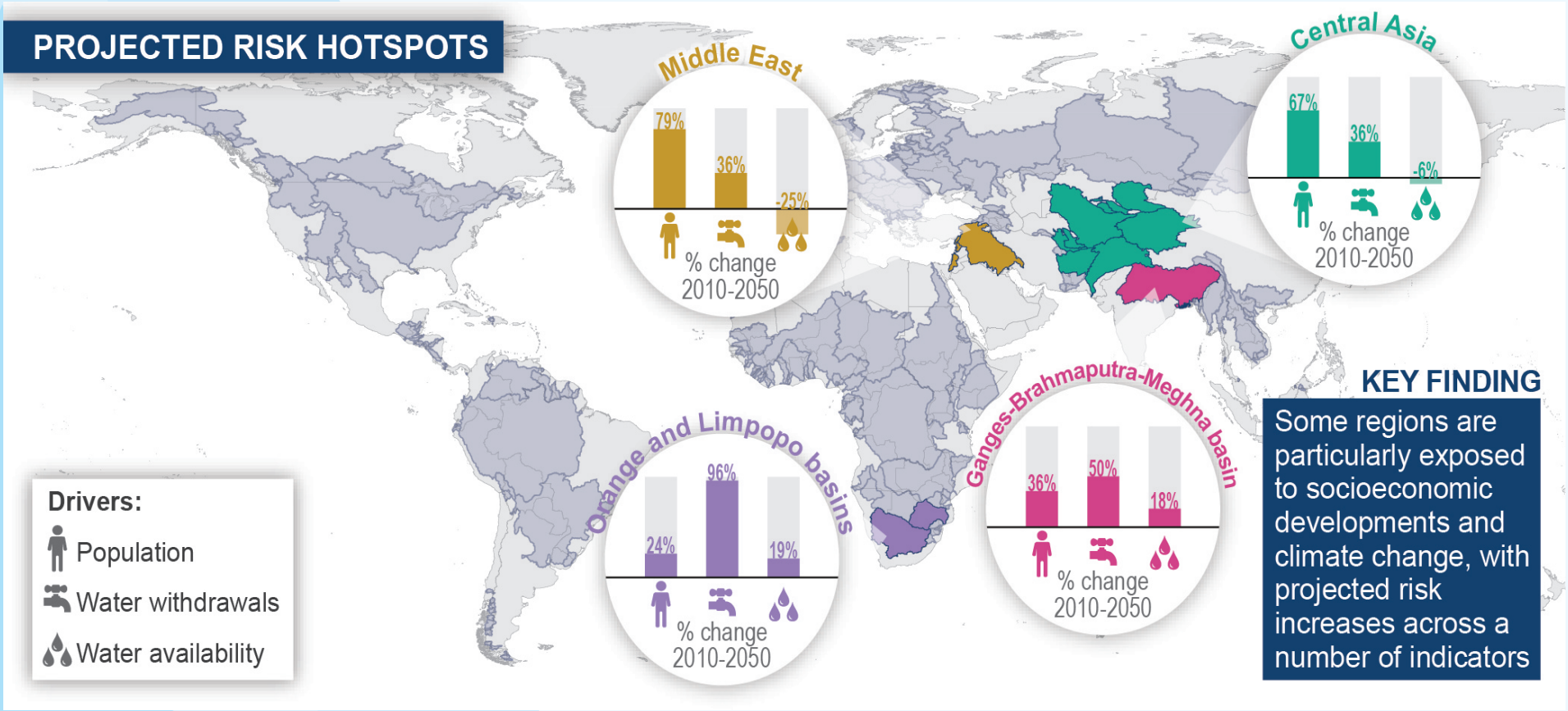
Baseline key messages I

1. Environmental, human and agricultural water stresses often occur in the same transboundary river basins, resulting in competition for water between sectors and between countries.
2. Pollution risks in many transboundary river basins are high and projected to increase.
3. The threat to freshwater biodiversity is global. Extinction risk is moderate to very high in 70% of the area of transboundary river basins.
4. The construction of dams and water diversions is in progress or planned in many transboundary river basins, sometimes without adequate international water cooperation instruments.

Baseline key messages II

5. Transboundary river basins with high economic dependence on water resources, low levels of societal wellbeing and high exposure to floods and droughts have the highest climate-related risks.
6. Almost all deltas in transboundary river basins have moderate to very high risk for one or more indicator.
7. Four groups of transboundary river basins have been identified where the basins within each group have similar risk profiles.
8. Risks are projected to increase in the next 15-30 years, particularly for four hotspot regions: the Middle East, Central Asia, the Ganges-Brahmaputra-Meghna basin, and the Orange and Limpopo basins in Southern Africa.

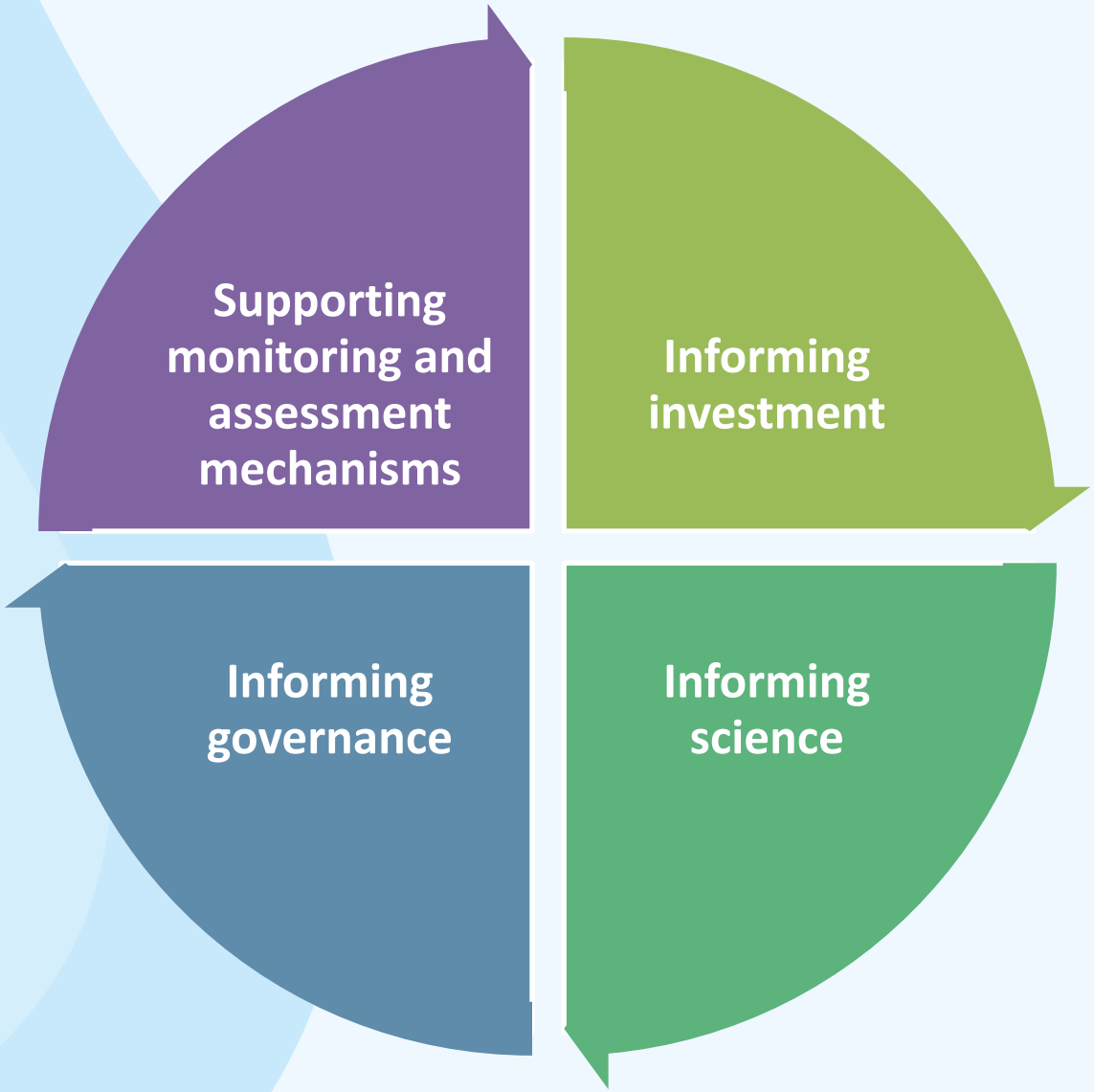
4 projected ‘hot-spots’



Transboundary Waters at UNEP-DHI: Programme

- UNEP-DHI: transboundary water management part of work programme for 20 years – will continue.
- UNEP-DHI and partners committed to continuing collaboration and open to new opportunities

Significance of Global Assessment



Variety of potential users

Potential global / regional uses

Support to GEF (& others) programming	➢ Basin and region prioritization ➢ Issue prioritization ➢ Impact assessment
Support implementation of UN-Watercourses Convention	➢ Knowledge platform ➢ Basin Profiles/Briefs

Other potential global/regional users

UNECE Water Convention	Global, indicator-based assessment to complement/enhance pan-European narrative assessments
Ramsar Convention	Ecosystems indicators (e.g. Wetland Disconnectivity, Extinction risk)
UN WWAP (WWDR), UNEP (GEO and UNEP-Live), World Bank (Spatial Agent)	Contribution to global assessments, data harvesting and visualisation platforms.
Others	• *World's Large Rivers Initiative* • *WWF* • *INBO* • *IW:LEARN* • *SIWI-UNESCO International Centre for Water Cooperation* • *Educational material*

Support to SDG-6 Reporting

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6.1. and 6.2. WASH	TWAP Socioeconomic indicators • Societal well-being
6.3. Water Quality	TWAP Water Quality indicators • Nutrient pollution • Wastewater pollution (*ind. 6.3.1.)
6.4. WRM	TWAP Water Quantity indicators • Environmental water stress (*ind. 6.4.2) • Human water stress (*ind. 6.4.2) • Agricultural water stress (*ind. 6.4.2)
6.5. IWRM	TWAP Governance indicators • Enabling environment (*ind. 6.5.1) • Legal frameworks (*ind. 6.5.2)
6.6. Water-related ecosystems	TWAP Ecosystems indicators • Wetland disconnectivity • Extinction risk • Threat to fish • Ecosystem impacts from dams

Other SDGs

11.5 Disasters	TWAP Socioeconomic indicators • Societal well-being
11.6. Municipal and other waste	TWAP Water Quality indicators • Wastewater pollution
13.1. Climate-related hazards	TWAP Socioeconomic indicators • Exposure to floods and droughts
15.5. Loss of biodiversity	TWAP Ecosystems indicators • Wetland disconnectivity • Extinction risk (*ind. 15.5.1) • Threat to fish

Challenges of Scale & Downscaling

- Resolution of datasets and models
  - Led to higher uncertainty for smaller basins & BCUs
  - But higher resolution datasets becoming available now
- Aggregation
  - From national data to basin results and vice versa
- Application of universal thresholds for each indicator
- Selection of issues (indicators) relevant to majority of basins.

➢ SCOPE FOR DOWNSCALING

Current basin uses and opportunities for downscaling

Current uses	➢ Common baseline: allows for comparison between basins and over time ➢ Fills data gaps in data poor areas ➢ Identification of potential risks (for further analysis) ➢ Fostering cooperation within basins & between basins
Potential	➢ Additional issues, same framework ➢ Finer resolution ➢ Validation of global results, improvements in datasets & models

Repeat assessment

1. Tracking progress compared to baseline

2. Refining methodology of global assessments

3. Support to updates of key global datasets

4. Providing tracking support on aspects of SDGs agains baseline in transboundary basins

5. Potential future Level 2 assessments of selected basins

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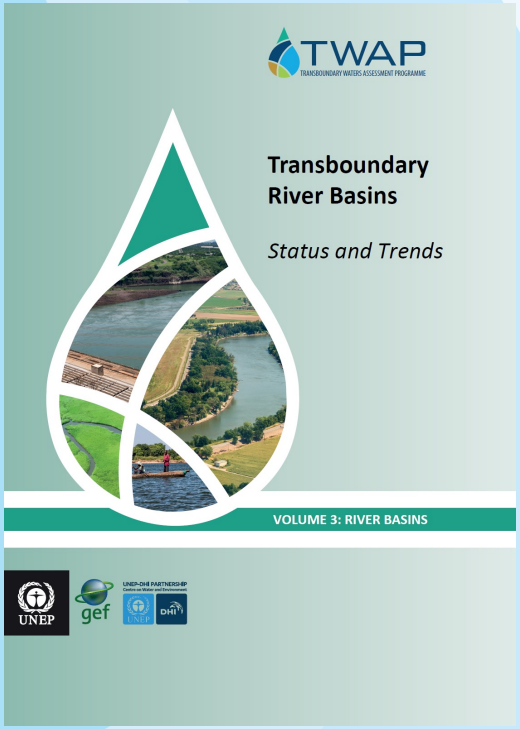

Thank you

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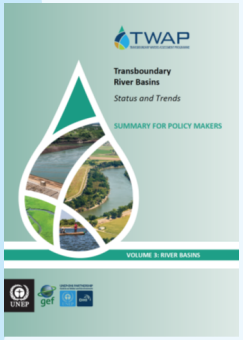

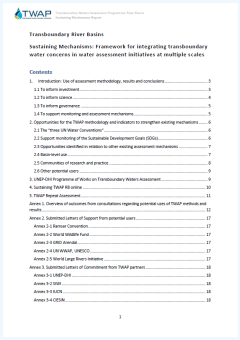

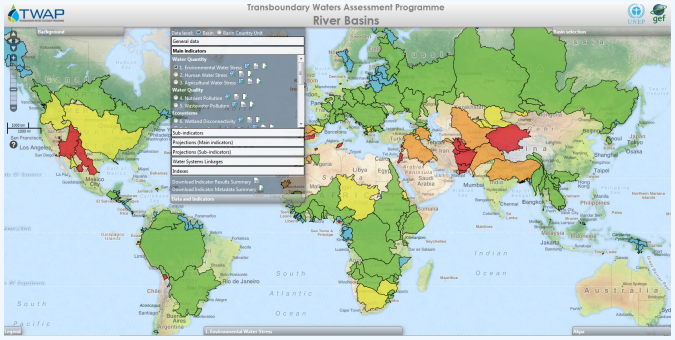

http://twap-rivers.org/