

Snapshots on water, climate and resilience: Examples on activities of the World Bank

EU and US Climate Change Mitigation Course, 20 April 2023, WU Vienna



WORLD BANK GROUP
Water

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- ❖ Overview on the Environmental and Social Framework
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**THE
WORLD
BANK**



1944

Creation



Bretton Woods Conference July 1944, Bretton Woods, New Hampshire

Central principles:

An end to economic nationalism
Open markets, development through trade

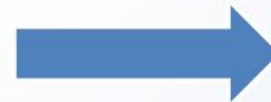
Two-fold aim in the wake of WWII:

1. Rebuild Europe
& foster economic development



International Bank for
Reconstruction and
Development (IBRD)
[First borrower: France (\$250M)]

2. Regulate the international monetary
and financial order



International Monetary
Fund (IMF)



Historic snapshot of evolving work



Twin-goals

END EXTREME POVERTY

Reduce the percentage of people living in extreme poverty to 3% by the year 2030

WBG | GOALS



Population living under the international poverty line (constant 2011 PPP, %) [i](#)

TREND

10.0 (2015)
15.7 (2010)
28.6 (1999)

PROMOTE SHARED PROSPERITY

Increase the income of the bottom 40% of the population in each country

WBG | GOALS

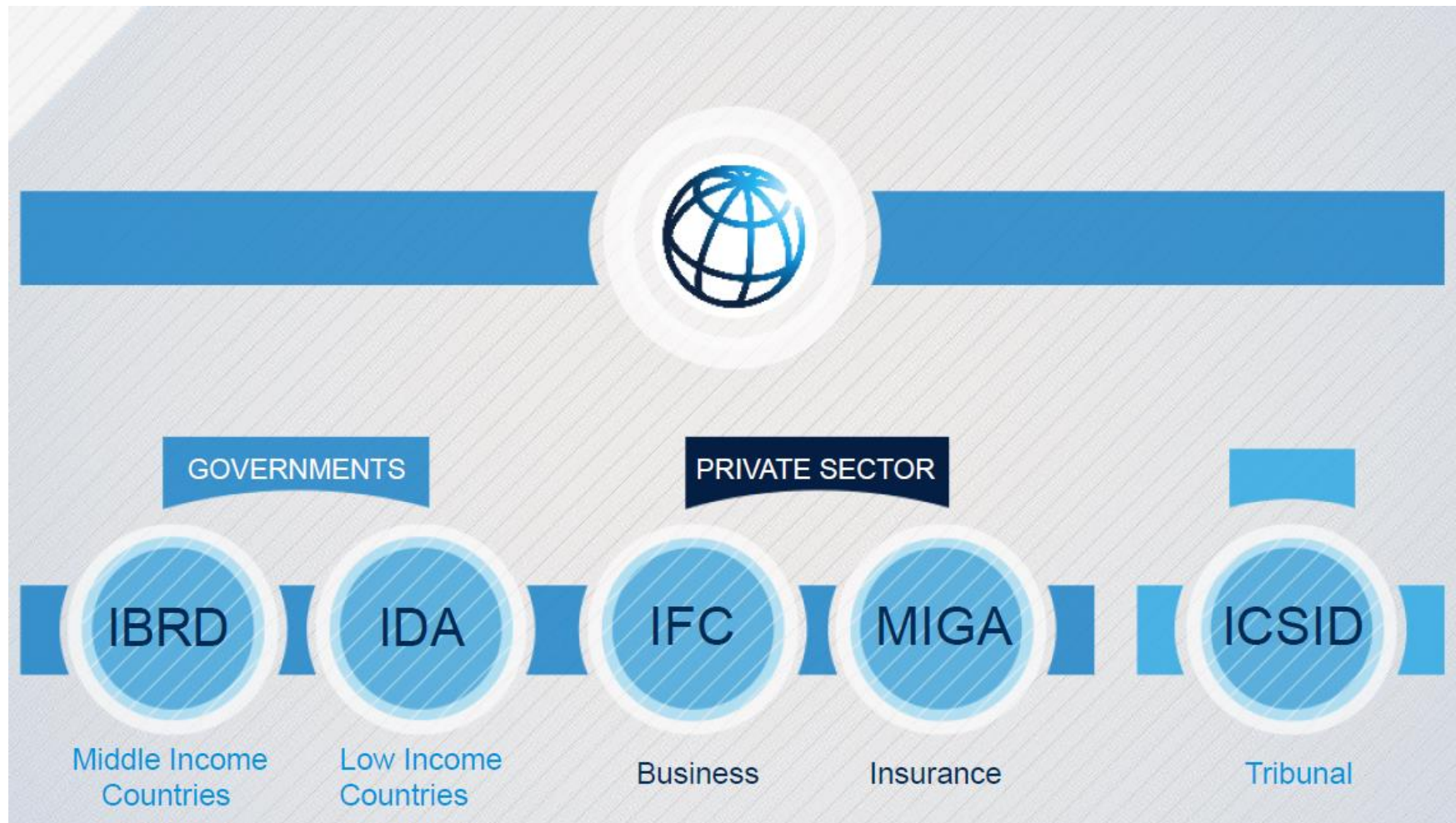


Countries with growth concentrated in bottom 40% (%) [i](#)

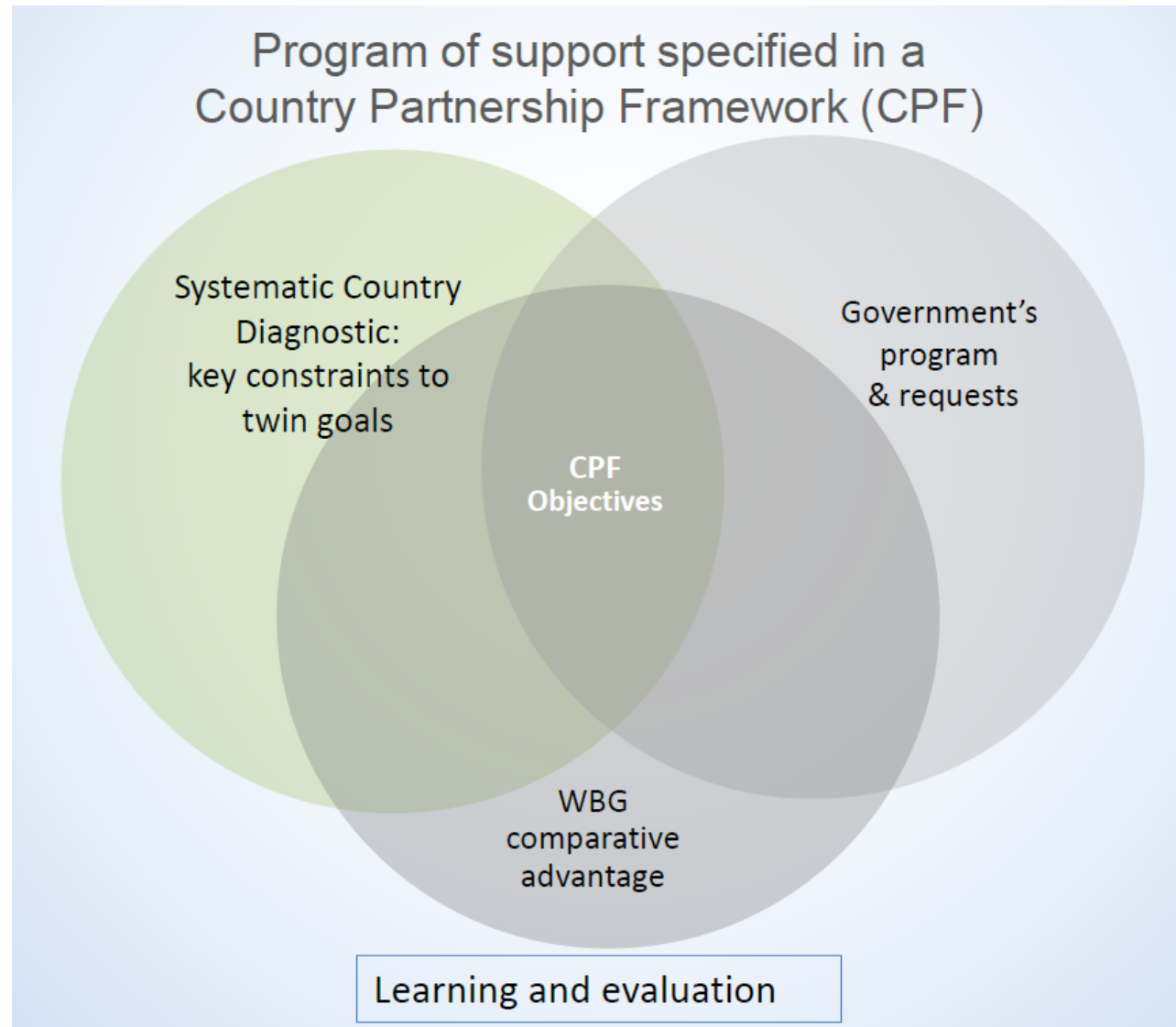
TREND

53 (2015)
68 (2011)

World Bank Group structure



Country based model



Services

*Our **value** is our ability to work at the nexus of global and local issues, complementing policy work with operational responses and financing, and engaging with both public and private sectors*



Finance

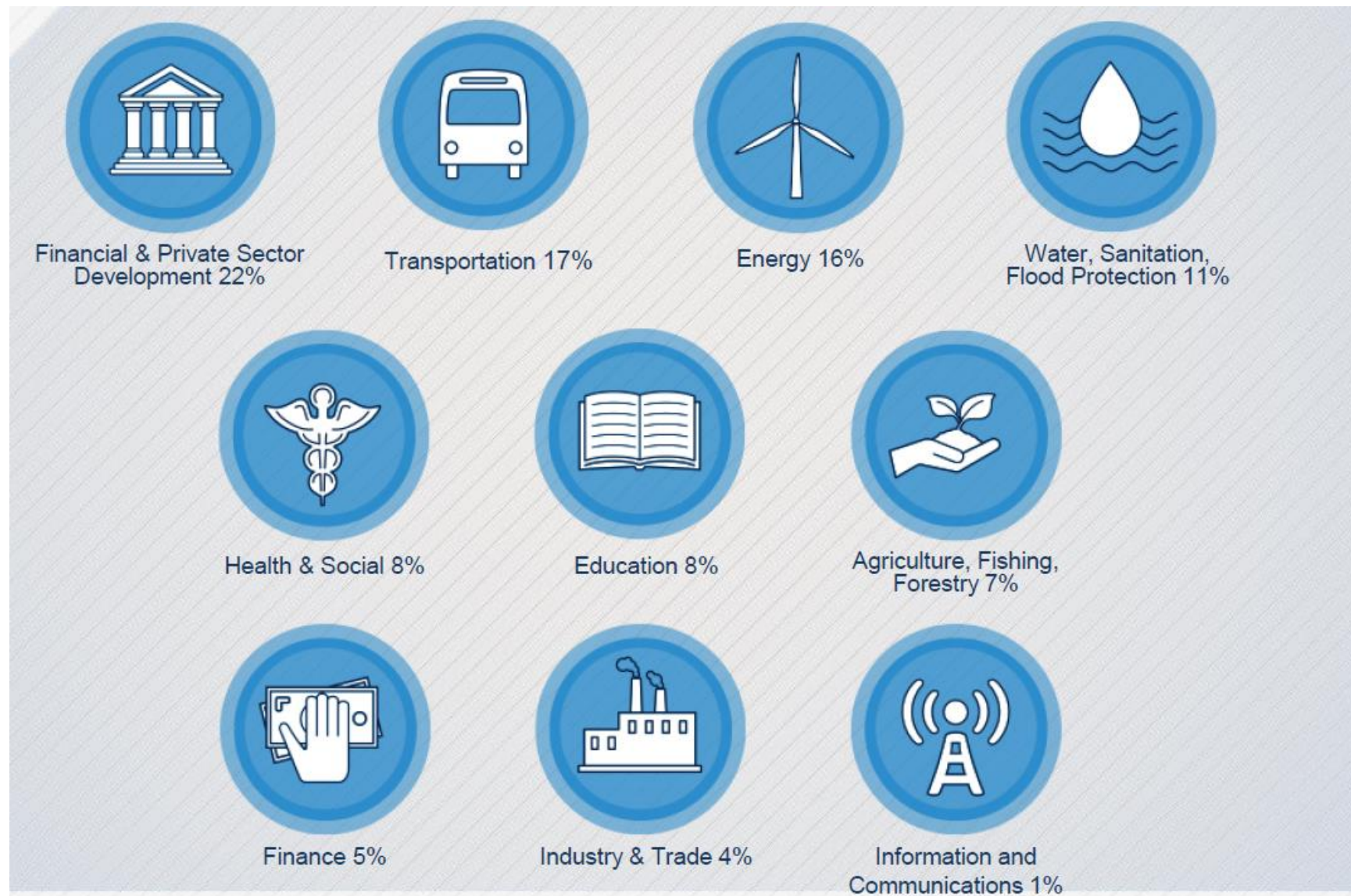


Knowledge

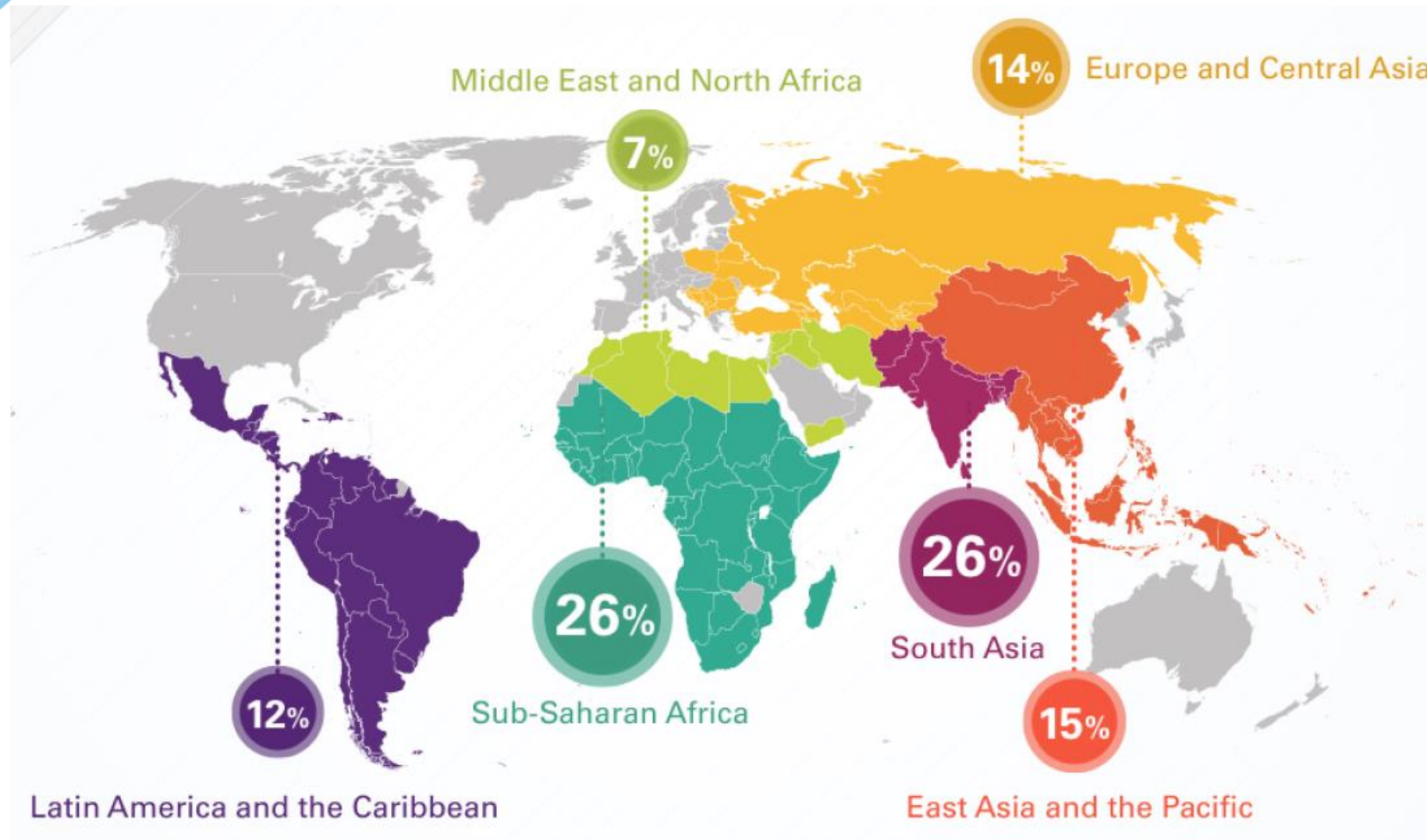


Convening

IBRD/IDA (about \$50 b per year)



Regions



What goes into a project?

1. Technical expertise
2. Environmental and Social Framework
3. Financial management
4. Procurement
5. Legal
6. Planning
7. Monitoring and evaluation
8. Budget management
9. Counterpart relations
10. Civil society
11. Donors
12. Communications



Environmental and Social Framework



Brief overview on the Environmental and Social Framework of the World Bank

What are the Environmental and Social Standards?

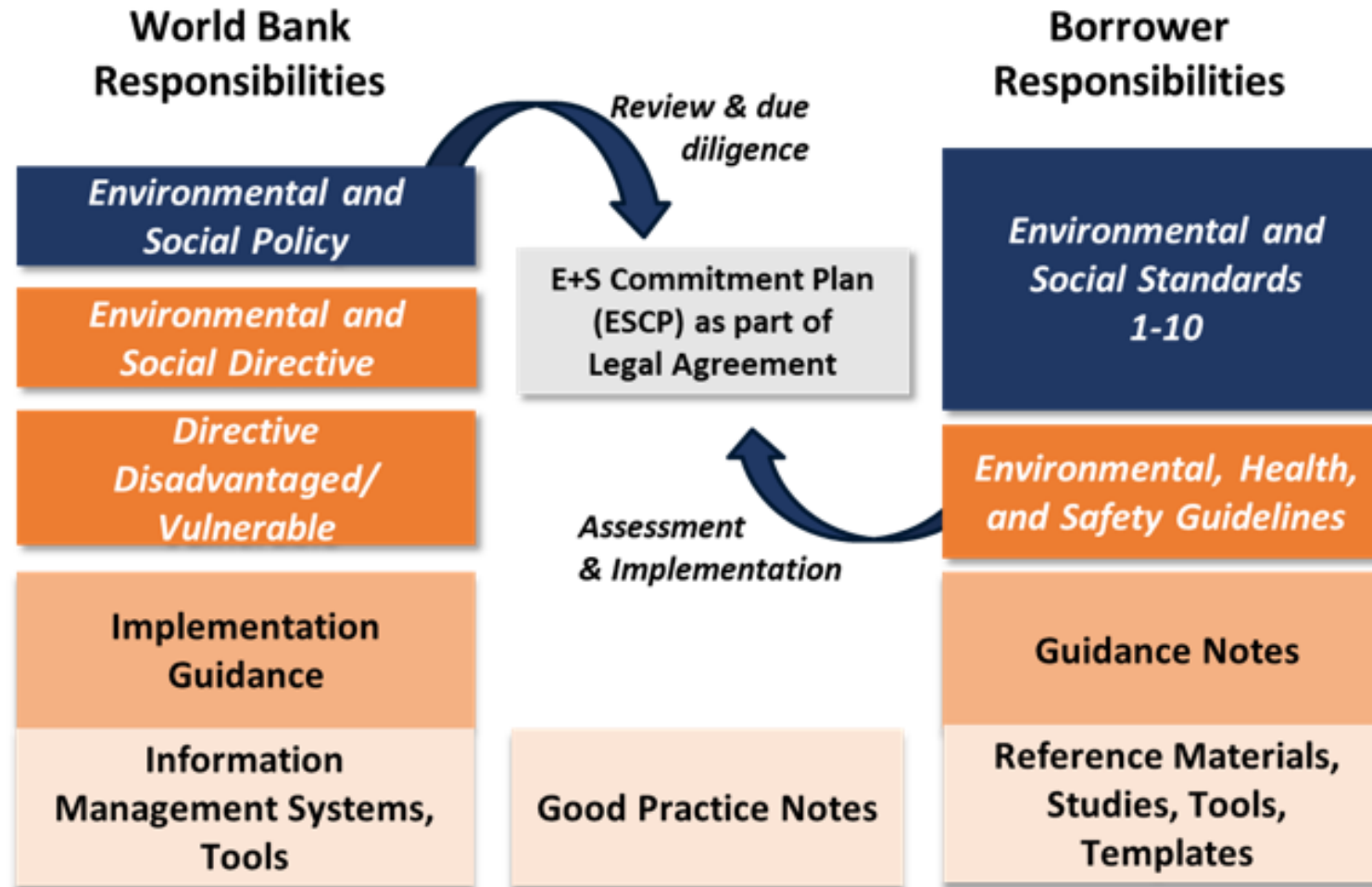
Designed to help Governments manage project risks and impacts, and improve environmental and social performance, consistent with good international practice and national and international obligations

Include objectives that define the environmental and social outcomes to be achieved



Include requirements that help Governments achieve ESS objectives through means appropriate to nature, scale and risks of the project

Environmental and Social Framework



World Bank Environmental and Social Standards



ESS1
Assessment and
Management of
Environmental and
Social Risks and Impacts



ESS2
Labor and
Working
Conditions



ESS3
Resource Efficiency
and Pollution
Prevention and
Management



ESS4
Community
Health and
Safety



ESS5
Land Acquisition,
Restrictions on Land
Use and Involuntary
Resettlement



ESS6
Biodiversity
Conservation and
Sustainable
Management of Living
Natural Resources



ESS7
Indigenous
Peoples/Sub-Saharan
African Historically
Underserved
Traditional Local
Communities



ESS8
Cultural
Heritage



ESS9
Financial
Intermediaries



ESS10
Stakeholder
Engagement and
Information
Disclosure

Current topics



The ESF incorporates current environmental and social issues relevant to investment projects. These include:



Climate Change



Gender



Non-discrimination



Disability

The ESF allows for:

- Post-Board preparation and disclosure of environmental and social assessment documents in some cases
- Adaptive Management
- Proportionality
- Use of some or all of the Borrower's existing Framework
- Use of a common approach when jointly financing a project with other agencies



World Bank Vienna Office



Vienna office: Some examples for engagement areas

- Regional Projects and Programs
- Just Transition from a carbon-based economy
- Emergency COVID operations
- Agriculture
- Environment
- Education
- Social Protection
- Innovation/entrepreneurship
- Dam safety
- Road Rehabilitation
- Water management

Water is essential



**Water sustains
the planet**



**Water is a vital
factor of production**



**Water is the
essence of life**

But...

Water is in crisis

Too much



Too polluted



Too little



... and pressures and extremes are increasing



Consumption patterns and pollution



Population growth and urbanization



Climate change

By 2030, demand for water is expected to exceed supply by 40%

The 2030 Water Resources Group Report

Water is an inter-sectorial issue

Example: Water Management Issues in Central Asia

- Semi-Arid area with growing physical water scarcity
- Increased competition for (transboundary) waters
- Environmental flow reduction – Aral sea shrinkage
- Irrigation as the largest water user
- Low water productivity and water use efficiency in irrigation
- Climate change will significantly increase irrigation water demand

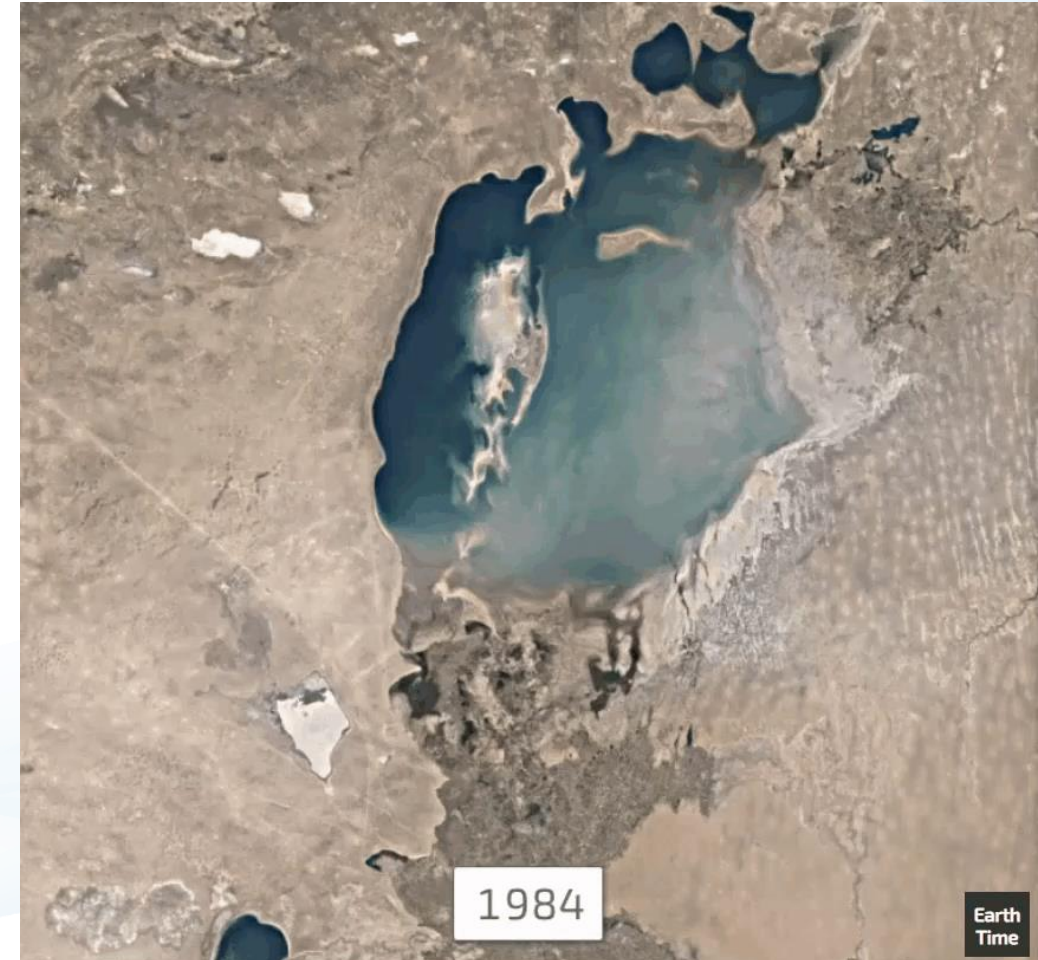
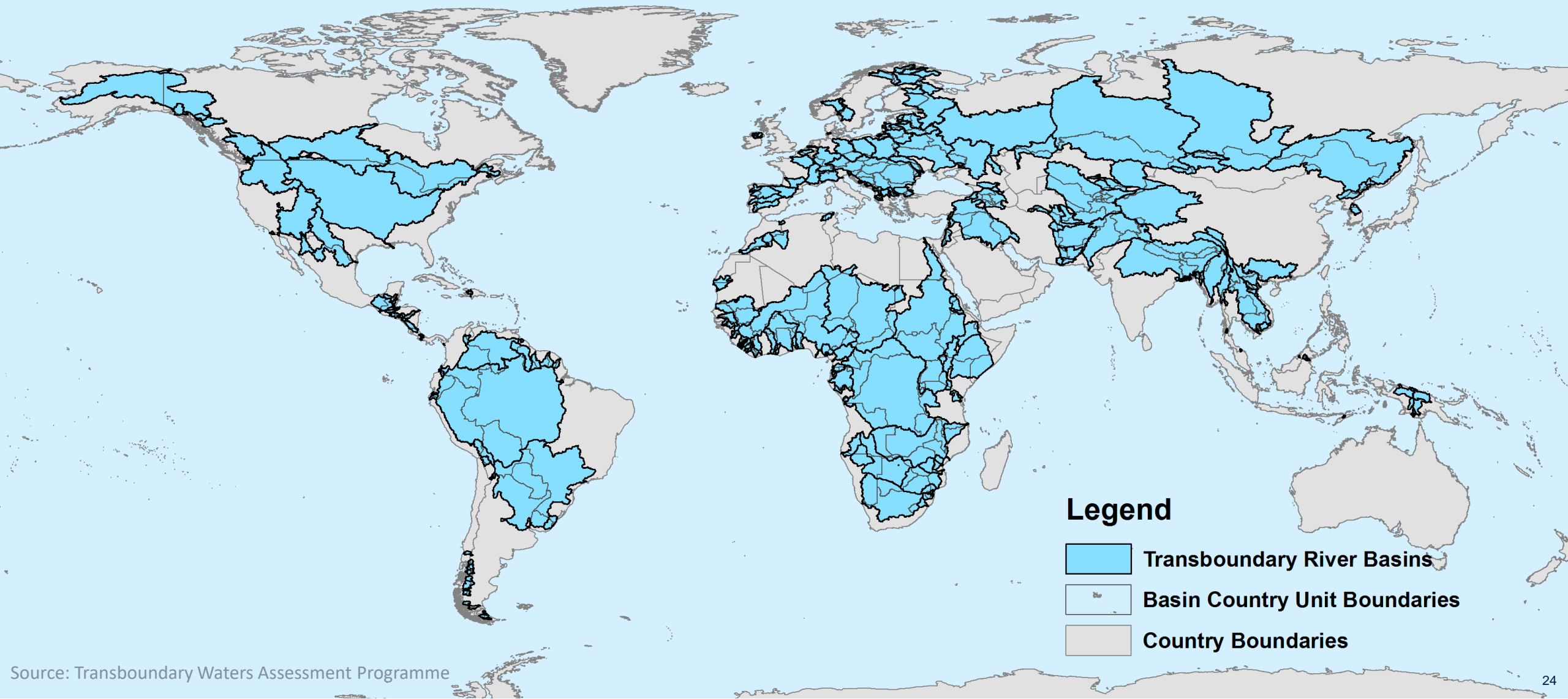
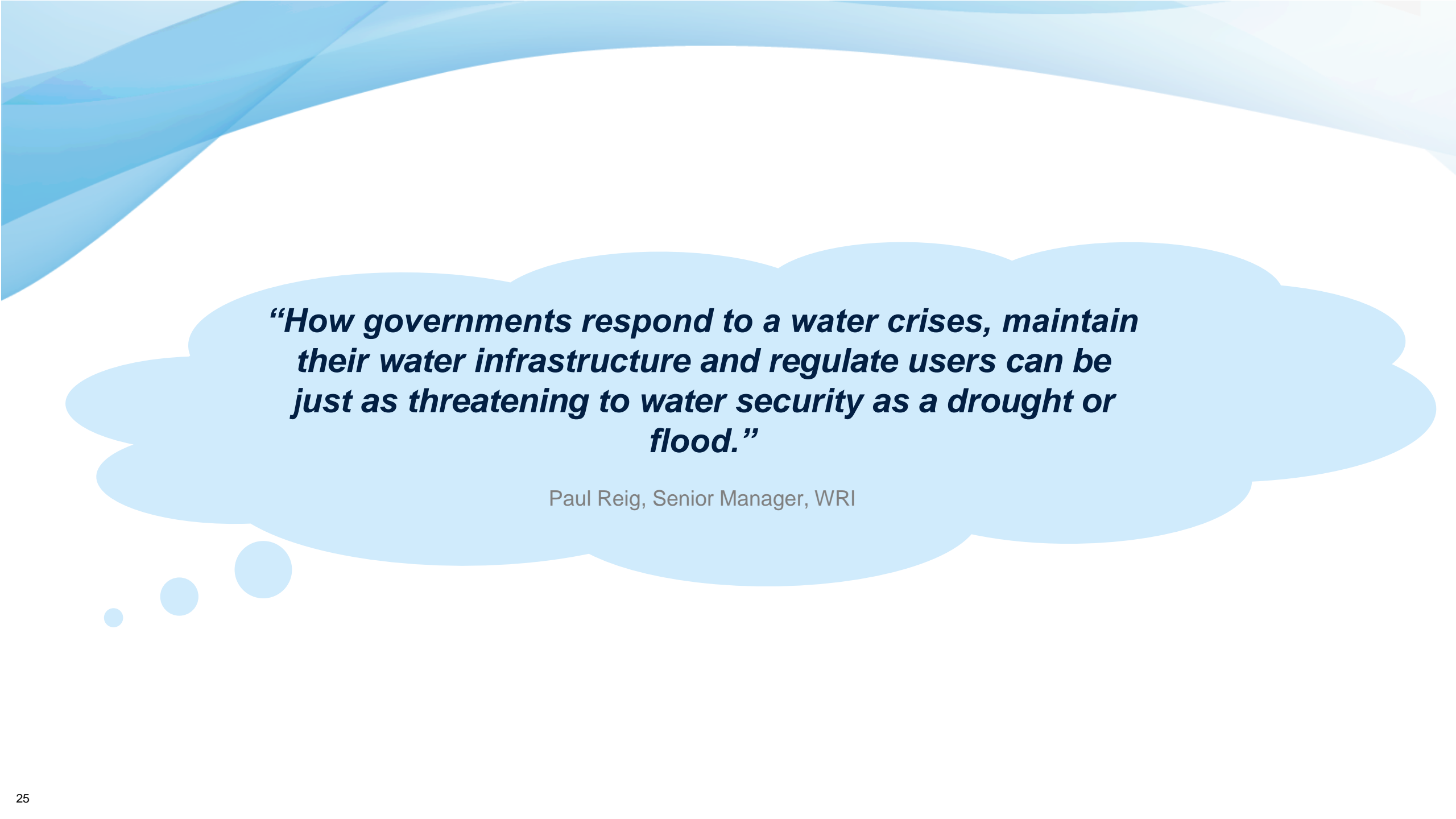


Image: World Economic Forum

Almost 2/3 of global landmass is covered by international river basins





“How governments respond to a water crises, maintain their water infrastructure and regulate users can be just as threatening to water security as a drought or flood.”

Paul Reig, Senior Manager, WRI

DANUBE WATER PROGRAM IN A NUTSHELL



- ▶ Launched in 2013
- ▶ Main donor: Austria  Federal Ministry
Republic of Austria
Finance
- ▶ Regional program, covering 16 countries
(11 target and 5 participating countries)
- ▶ Objective: Supporting the water sector in
the Danube Region
- ▶ “Smart policies, strong utilities, sustainable
services”
- ▶ Bank- and Recipient (IAWD) executed
activities



DANUBE WATER PROGRAM KEY ACTIVITIES



Analytical and advisory work on WSS and Water Security

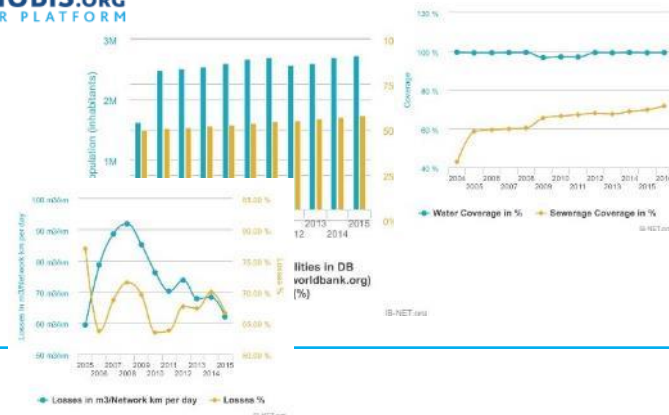


Knowledge sharing



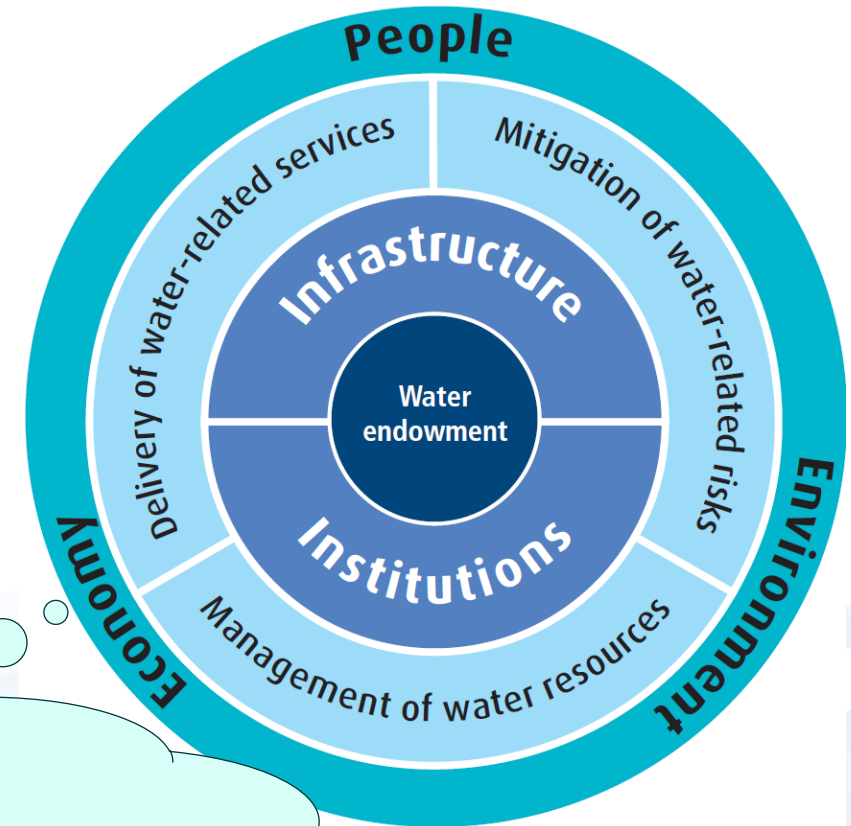
Capacity building

Benchmarking



World Bank Water Security Diagnostics Initiative

- Launched in 2017
- Making best use of **World Bank's** technical **experience**, instruments, and financial resources
- Produce **studies that contribute to discussions with senior policy makers beyond line ministries**
- Create **narrative on “Water Writ Large”** in a country or region
- Diagnostic reports that dive deeper into **water challenges in countries** to elaborate **recommendations for reforms and investments**



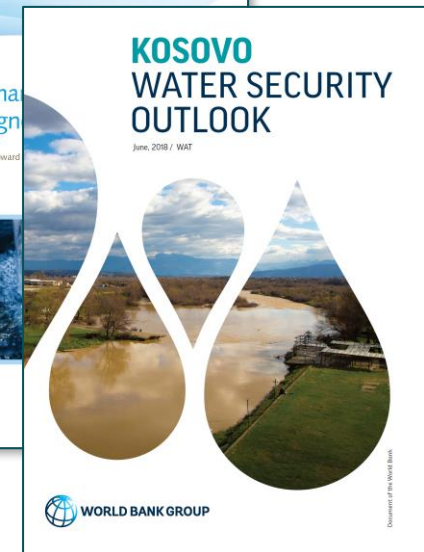
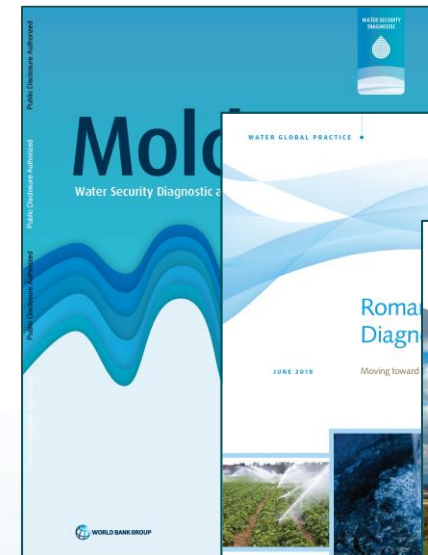
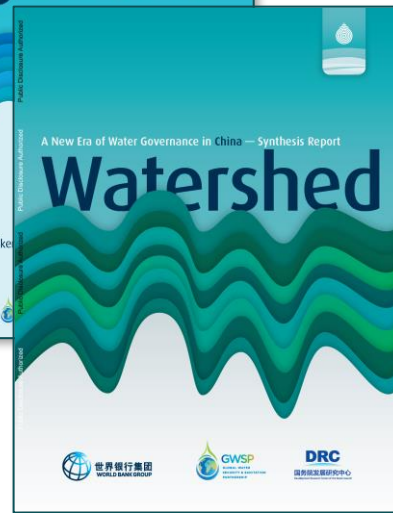
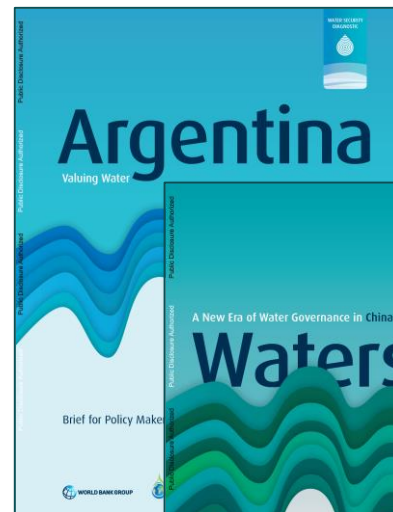
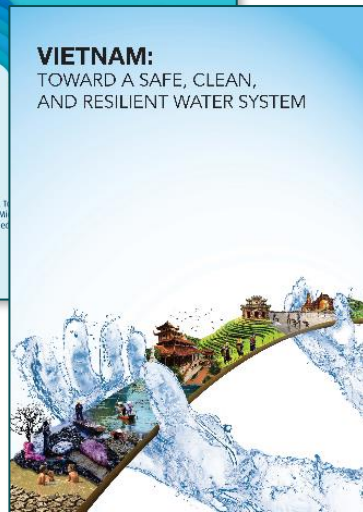
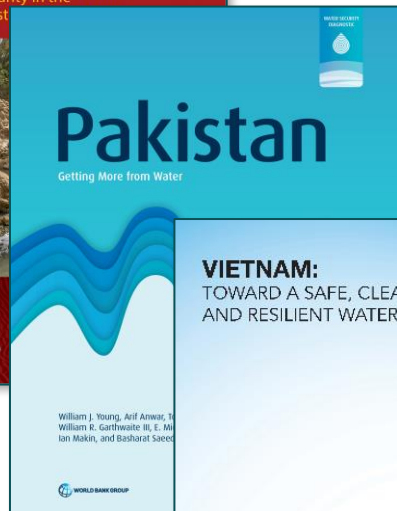
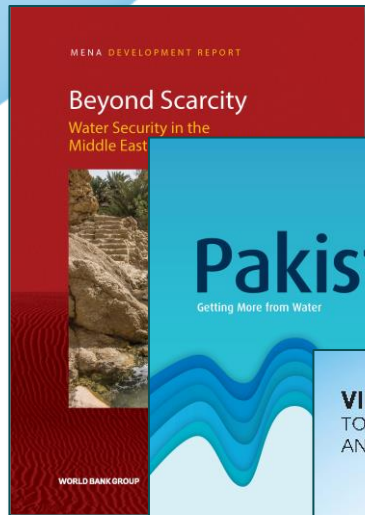
What is “Water Security”?

As defined by Grey and Sadoff (2007),
“the availability of an acceptable quantity and quality of water for health, livelihoods, ecosystems and production, coupled with an acceptable level of water-related risks to people, environments and economies.”

Water Security Diagnostics

Examples for already published World Bank studies

Various water security diagnostics delivered at country and regional levels, meeting growing demand for water security analytics



<https://www.worldbank.org/en/topic/water/publication/water-security-diagnostic-initiative#3>

Access points for action? **The three 3 I's:**



INFORMATION



INSTITUTIONS

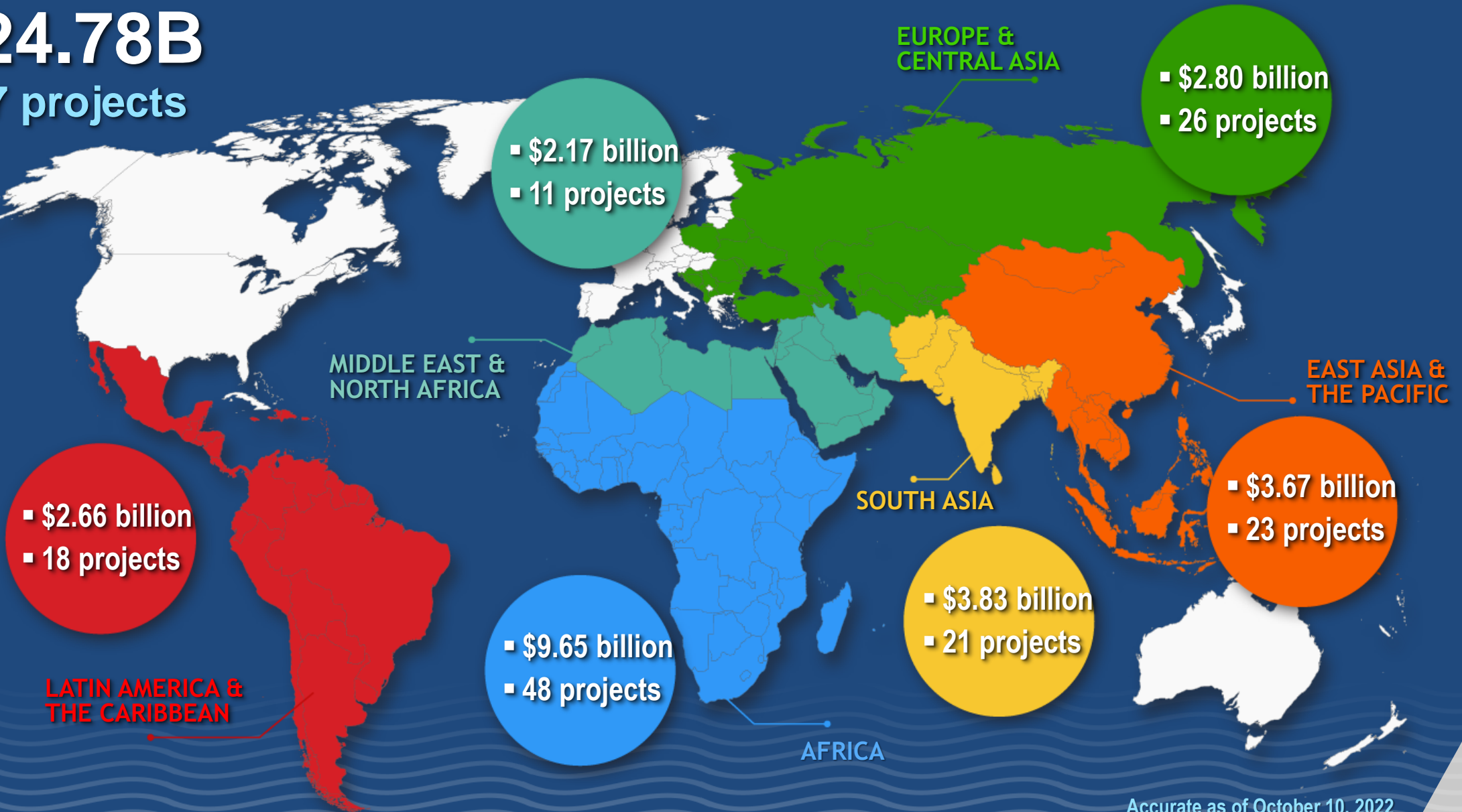


INVESTMENT

World Bank investments in water

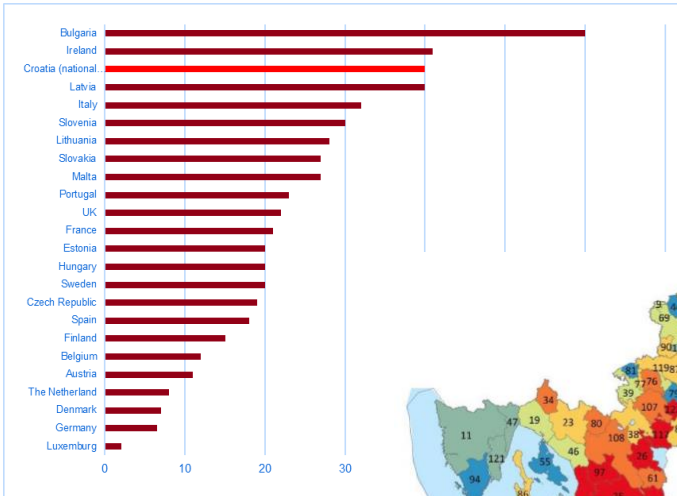
\$24.78B

147 projects

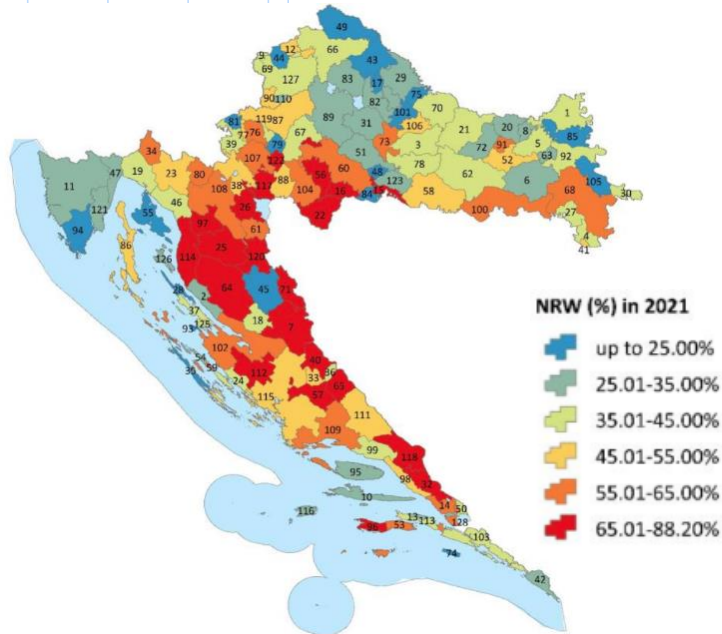


Accurate as of October 10, 2022

Example: Public water utility sector in Croatia



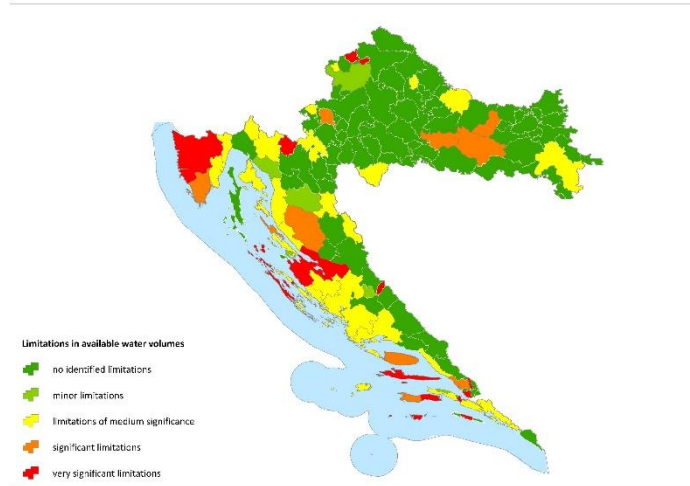
Croatia: No. 3 in terms of water losses in the EU



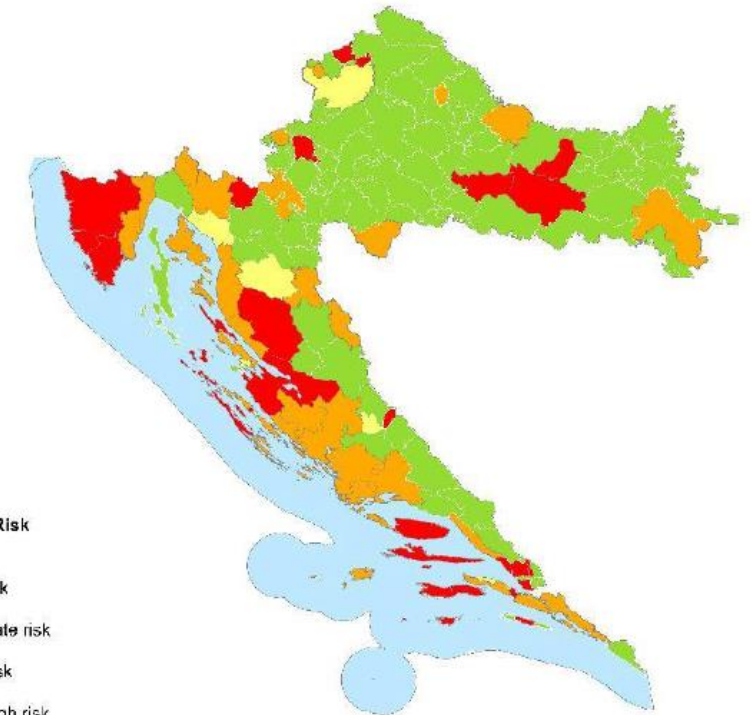
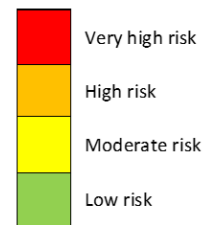
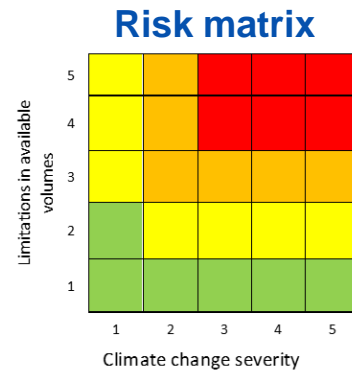
Spatial distribution of the **Non-Revenue Water (NRW)** share in Croatia – current PWSPs level

- **Connection rate** to water supply systems ~ **90%**
- Current service areas: **160 Public Water Service Providers (PWSPs)**; 128 dealing with water supply
- Ongoing reform process for the **aggregation of 160 PWSPs to 41**
- Average rate of **Non-revenue Water (NRW)** around **50%**, varying between ~ 25% up to around ~ 80% per water utility
- Requirements **new EU Drinking Water Directive**
- Obligations from EU **National Recovery and Resilience Plan (NRRP)** for Croatia
- Impacts of **climate change** on water availability and demand

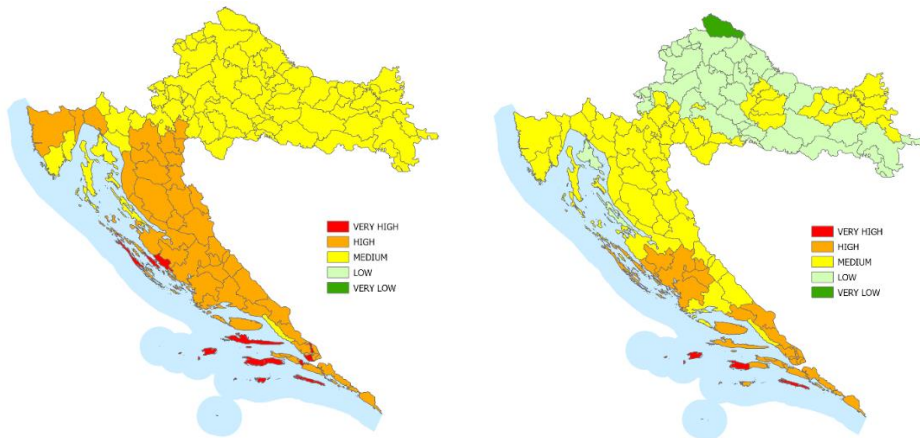
Water availability, climate change scenarios, risks



Limitations in available water volumes



Spatial distribution of risks according to the risk matrix, limitations in available water volumes and climate change severity



Climate change scenarios

Investment needs and potential financing sources

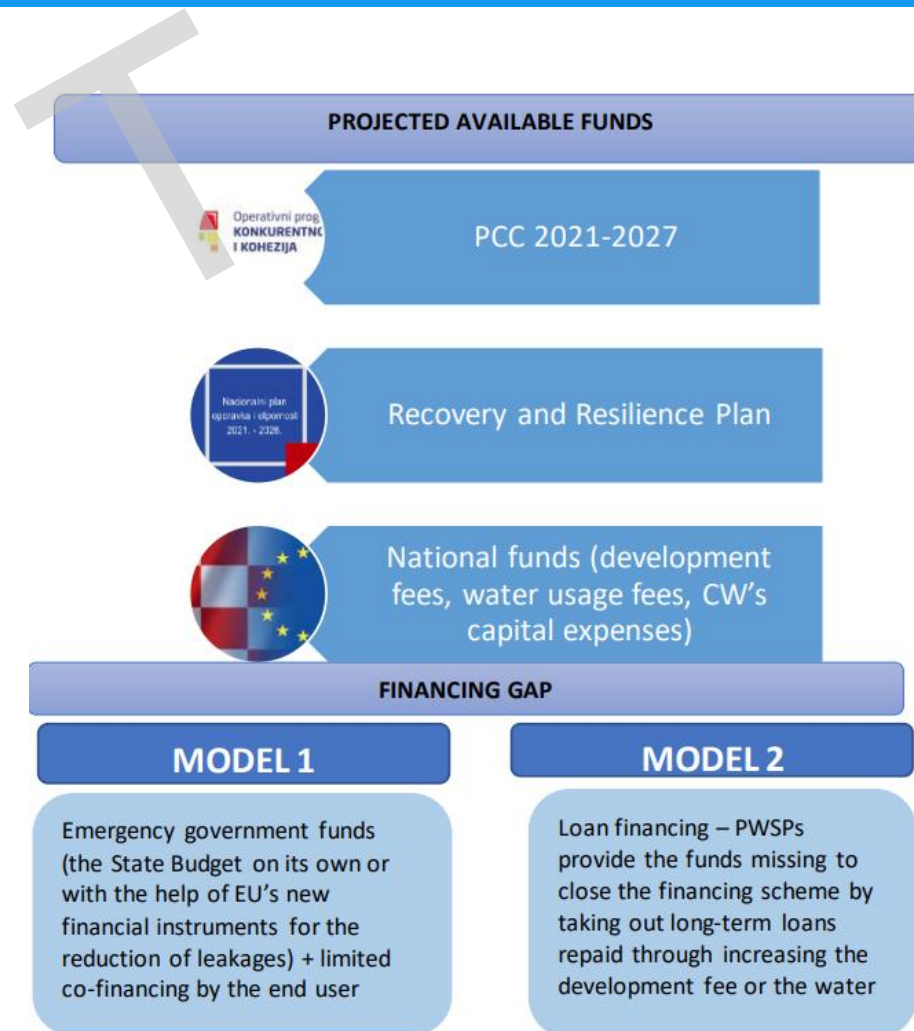
Estimated total **financing needs: EUR 1,580 million**

Total projected **available funds: EUR 675 million**

Financial gap: EUR 905 million (or 57% of the total projected investment value of the measures)

Due to significant financial gap, two models are discussed:

- **MODEL 1:** Emergency government funds and limited funds of the end users
- **MODEL 2:** Loan financing (IFI loans as a more favorable option or loans from commercial banks) through charging the future water price or through increasing the development fee



Ukraine: Rapid damage and needs assessment

Overall objective: Rapid yet consistent and robust assessment to inform reconstruction and recovery planning



MACROECONOMIC AND POVERTY IMPACTS

The war has taken a severe human, social, and economic toll

- **Gross Domestic Product (GDP) shrunk** by 29.2 percent in 2022, and—with the continued duration of the war uncertain—is expected to grow by only 0.5 percent in 2023
- **Tax revenue collection has deteriorated** significantly, and **public expenditure increased** sharply to ensure delivery of key public services during war time
- **8.1 million people are displaced** across Europe (UNHCR, Feb 2023)
- **5.4 million people** were internally displaced within Ukraine with protracted (six months+) displacement prevalent (IOM, January 2023)
- **Poverty is expected to increase from 5.5 percent to 24.1 percent in 2022** (based on the poverty line of US\$6.85 per person per day), pushing an additional 7.1 million people into poverty and setting back 15 years of progress



OVERALL DAMAGE AND NEEDS

**DIRECT
DAMAGE**
**US\$135
billion**

Safe repair & reconstruction of
buildings & infrastructure to
modern & green standards
Support recovery of public
services & private sector

**RECONSTRUCTION AND
RECOVERY NEEDS**

US\$411 billion

GOVERNMENT PRIORITIES FOR 2023



Energy infrastructure

- Restoration and repair of power transmission and distribution lines
- Restoration and decentralization of energy generation
- Strengthening the protection of the power grid

Humanitarian demining (explosive hazard management)

- Scaling up demining activities

Housing

- Repairs of flats and private housing

Critical and social infrastructure

- Renewal of basic housing utilities and digital infrastructure
- Repairs and reconstruction of transport connections and ports
- Repairs and restoration of social and administrative infrastructure

Private sector

- Guarantees, first loss facilities, lines of credit
- Support to small and medium-sized enterprises and agricultural sector



Thank you!