INVESTING IN WATER SECURITY:

A FOCUS ON FINANCE FOR THE AWDO 2020

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Water Security for all: Asian Water Development Outlook 2020

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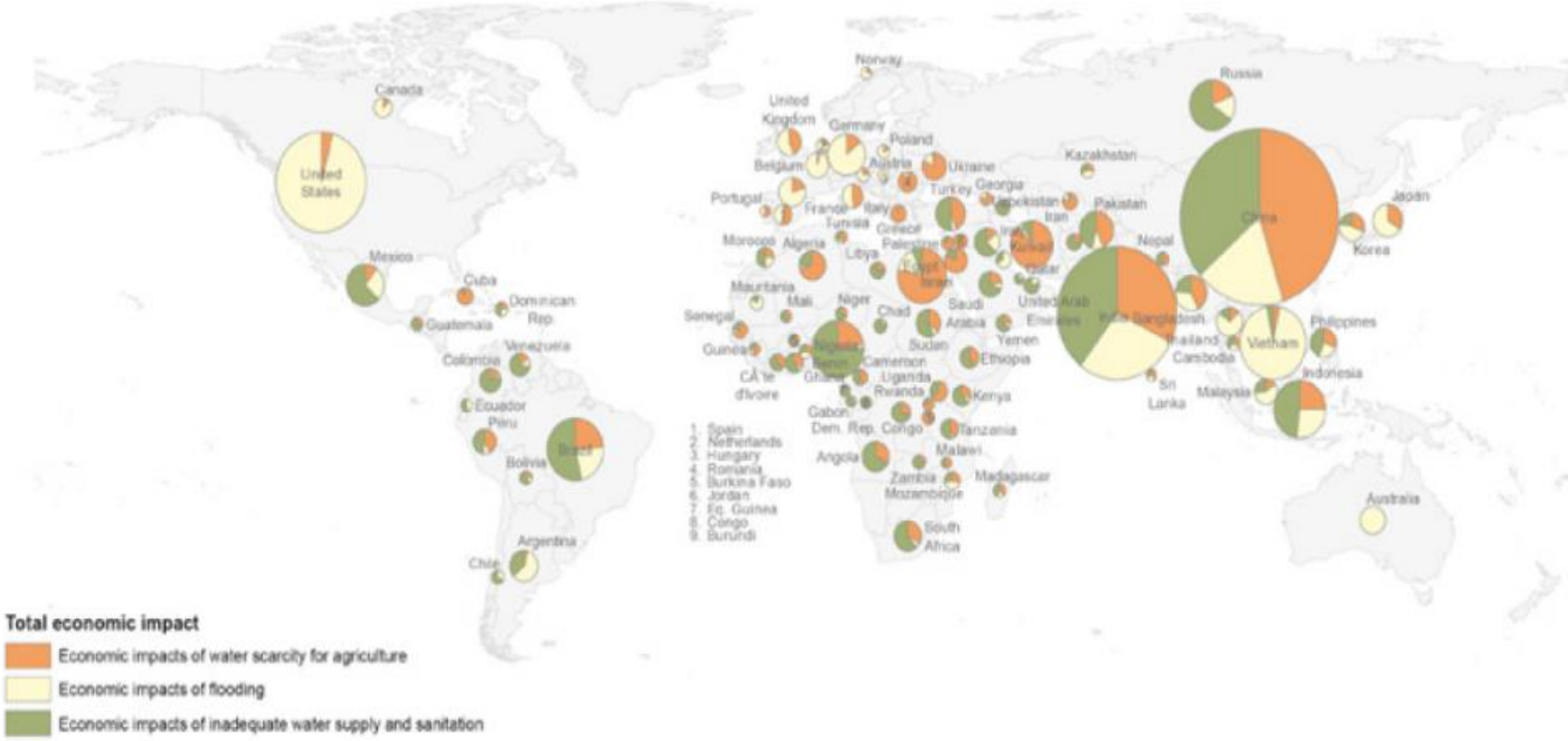
The economic case for water security
Relative economic impact of water insecurity



Source: Sadoff et al, (2015) *Securing Water, Sustaining Growth*, report of the OECD/GWP Task Force

Drivers of water-related investment needs

- Water supply
  - Urban poulation growth
  - Improve access to water for all (connection, vulnerable groups)
  - Upgrade drinking water standards
  - Efficiency (non-revenue water)
- Wastewater collection and treatment
  - Connection and treatment
  - Sensitive areas
  - Emerging issues (pharmaceutical residues, microplastics, sludge…)
- Flood protection
  - Economic and population growth
  - Value of assets at risk

Scope – Baseline expenditure and projections

- Storage
- Irrigation (expansion, efficiency)
- Drinking water supply
- Sanitation
- Flood protection

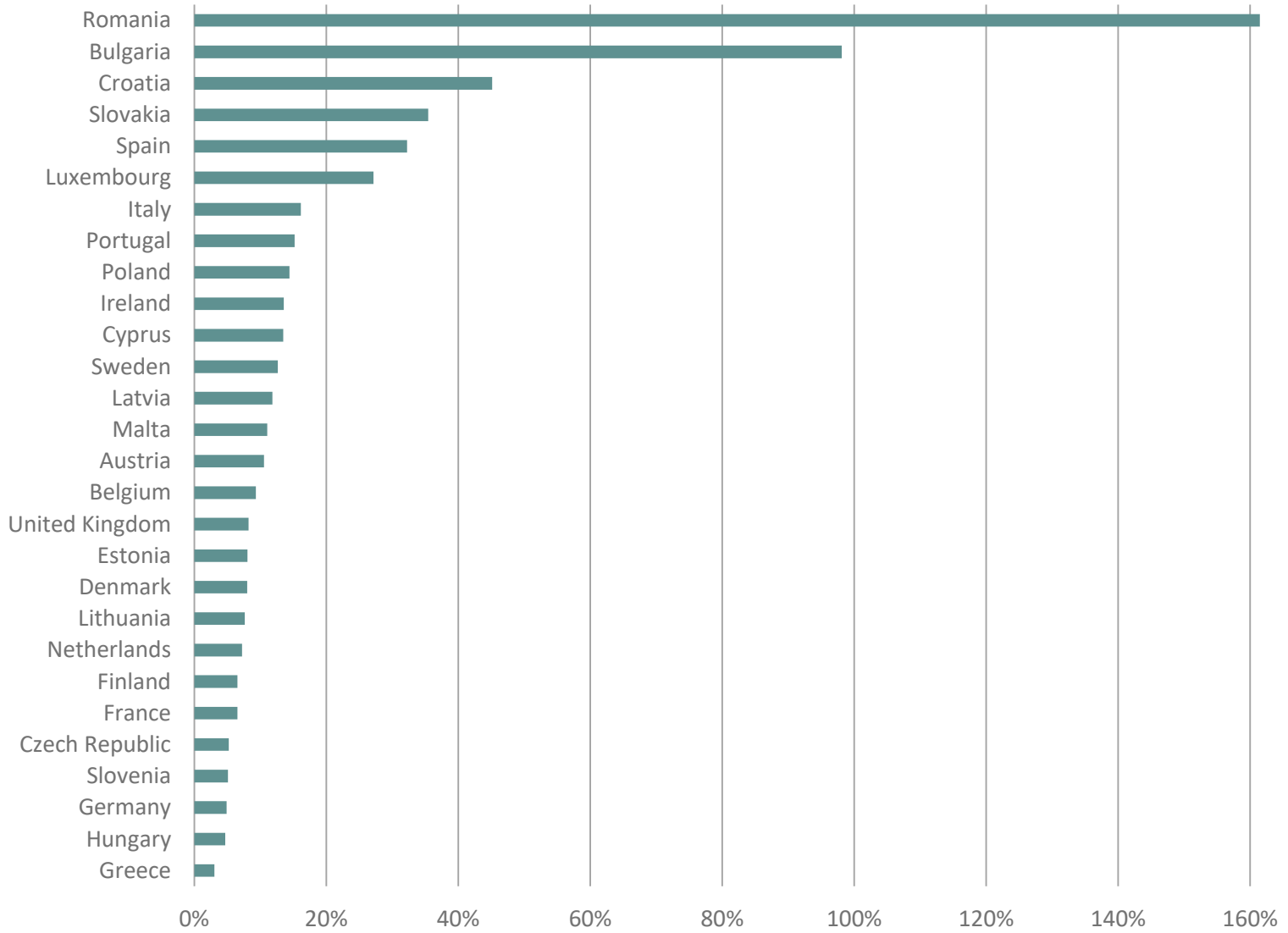
✋Not covered: the cost of the resource




Scope – Financing

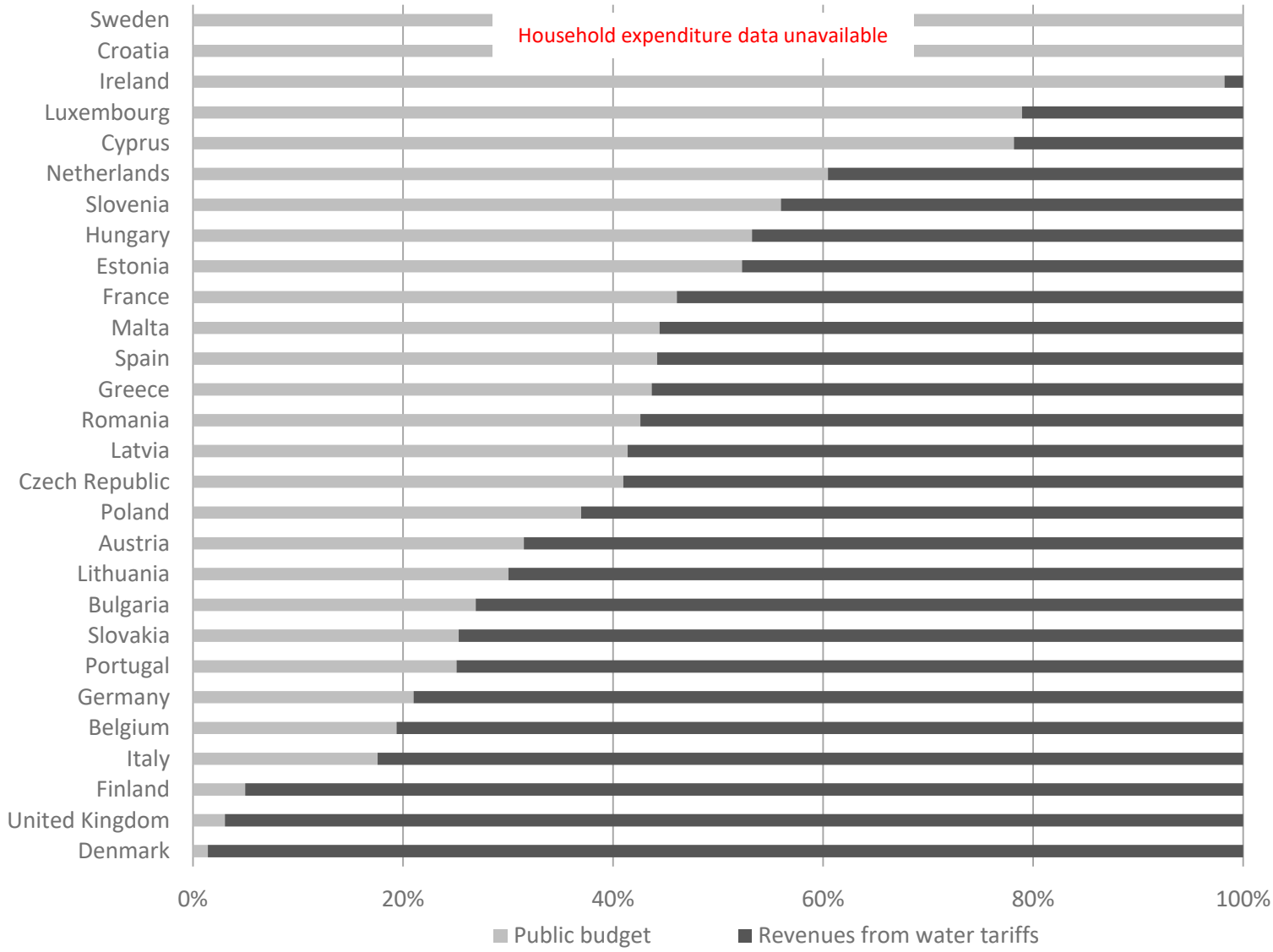
- Financing strategies. Respective role of:
  - Revenues from tariffs
  - Public finance
  - Official development assistance
- Financing options
  - Experience with commercial finance
- Equity
  - Access for vulnerable groups
  - Affordability

Per Annum additional expenditures by 2030 (*BAU + Compliance + efficiency) vs. baseline*



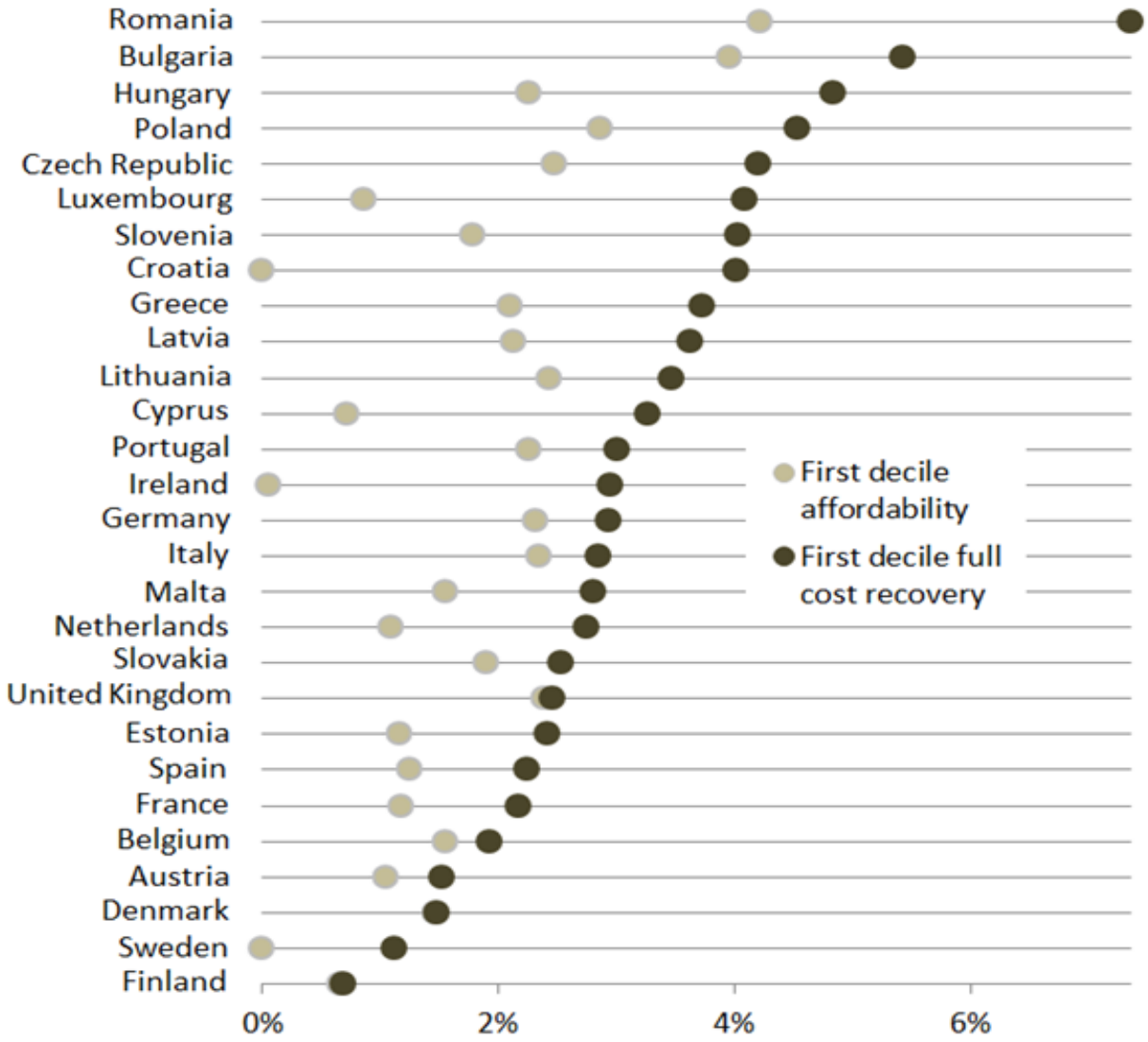
Source: OECD analysis based on European Commission and Eurostat data

Past financing strategies - Sources of finance for water supply and sanitation



Source: OECD analysis based on EUROSTAT (General government expenditure by function, Final consumption expenditure on environmental protection services by institutional sector, Final consumption expenditure of households by consumption purpose, Mean consumption expenditure by detailed COICOP level).

Raising water tariffs towards full-cost recovery of current expenditures

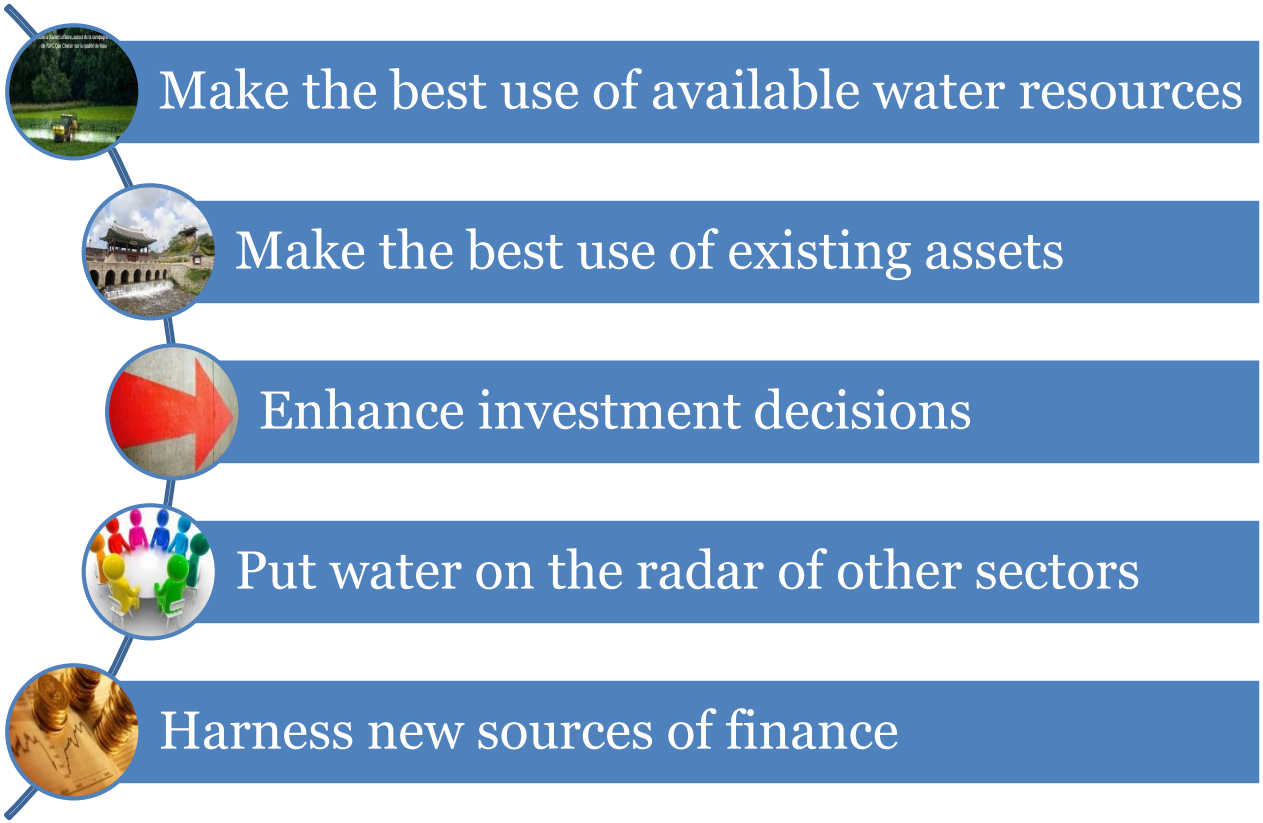


Note: Lack of household expenditure data for Croatia and Sweden. Known underestimate of total expenditures for Finland and Sweden.

Source: OECD analysis based on EUROSTAT (household expenditures and income data)

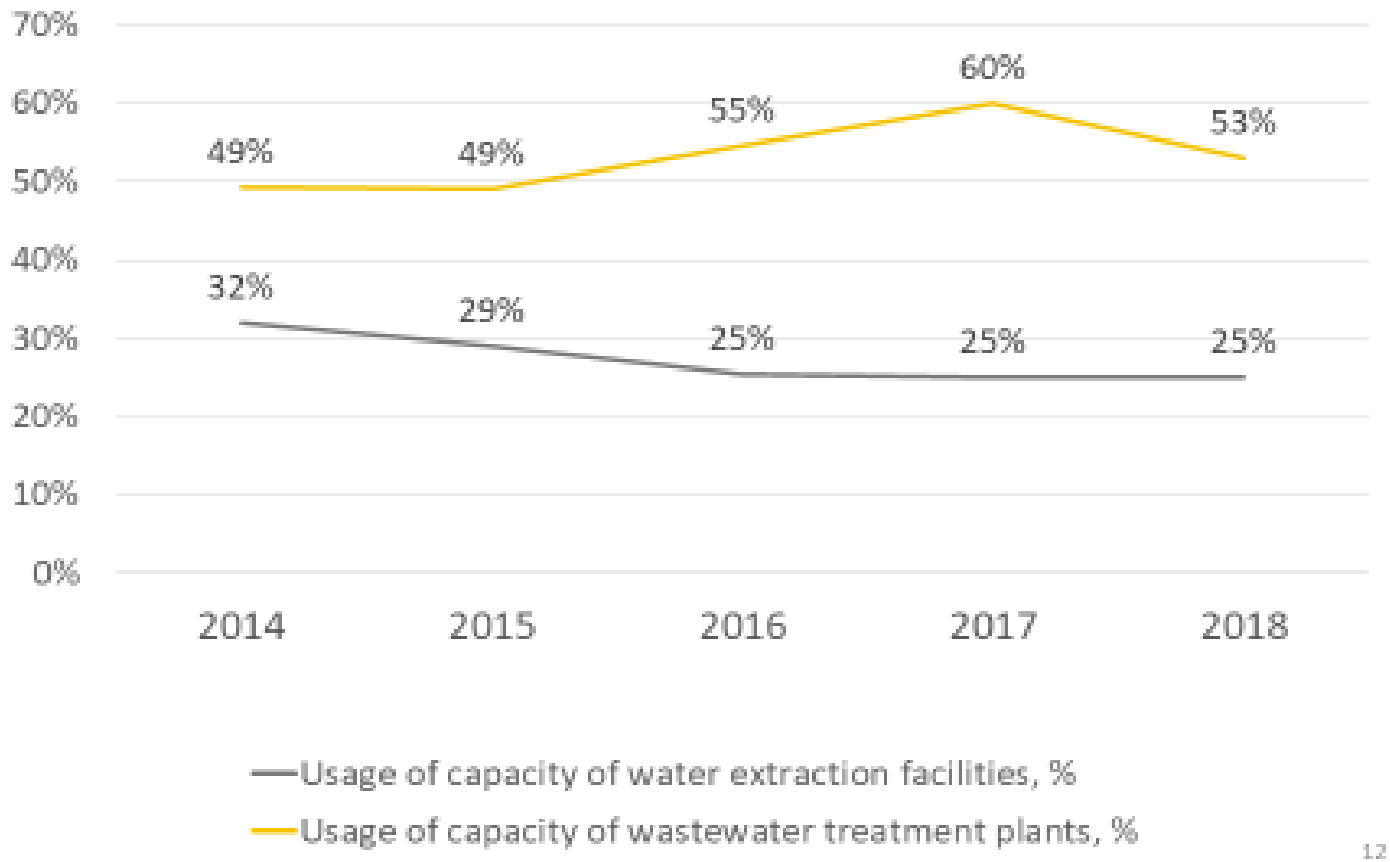
2011-15 annual average

Options to close the financing gap
It is not all about more money

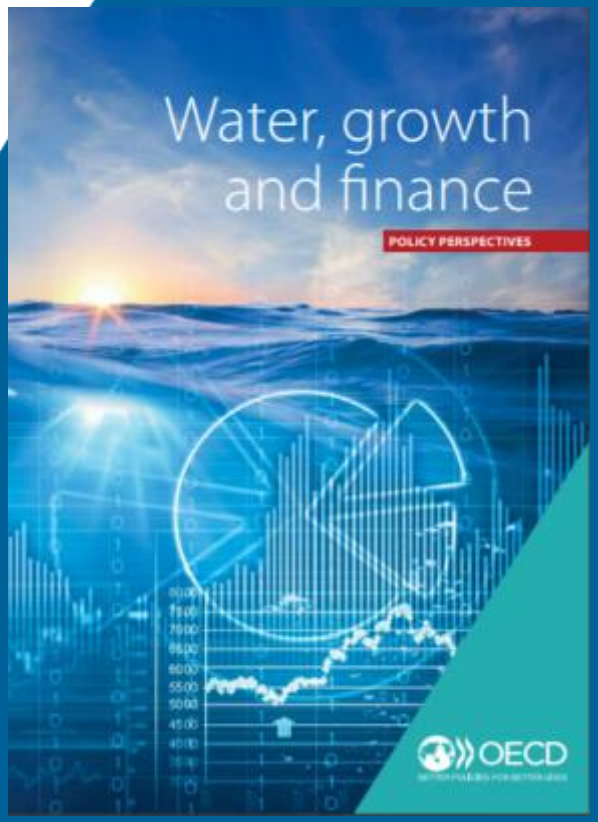


Uneffective investment – an illustration

Used capacity of water extraction facilities and wastewater treatment plants in Lithuania (2014-2018)



Source: Žilienė, 2019



Thank you

www.oecd.org/water

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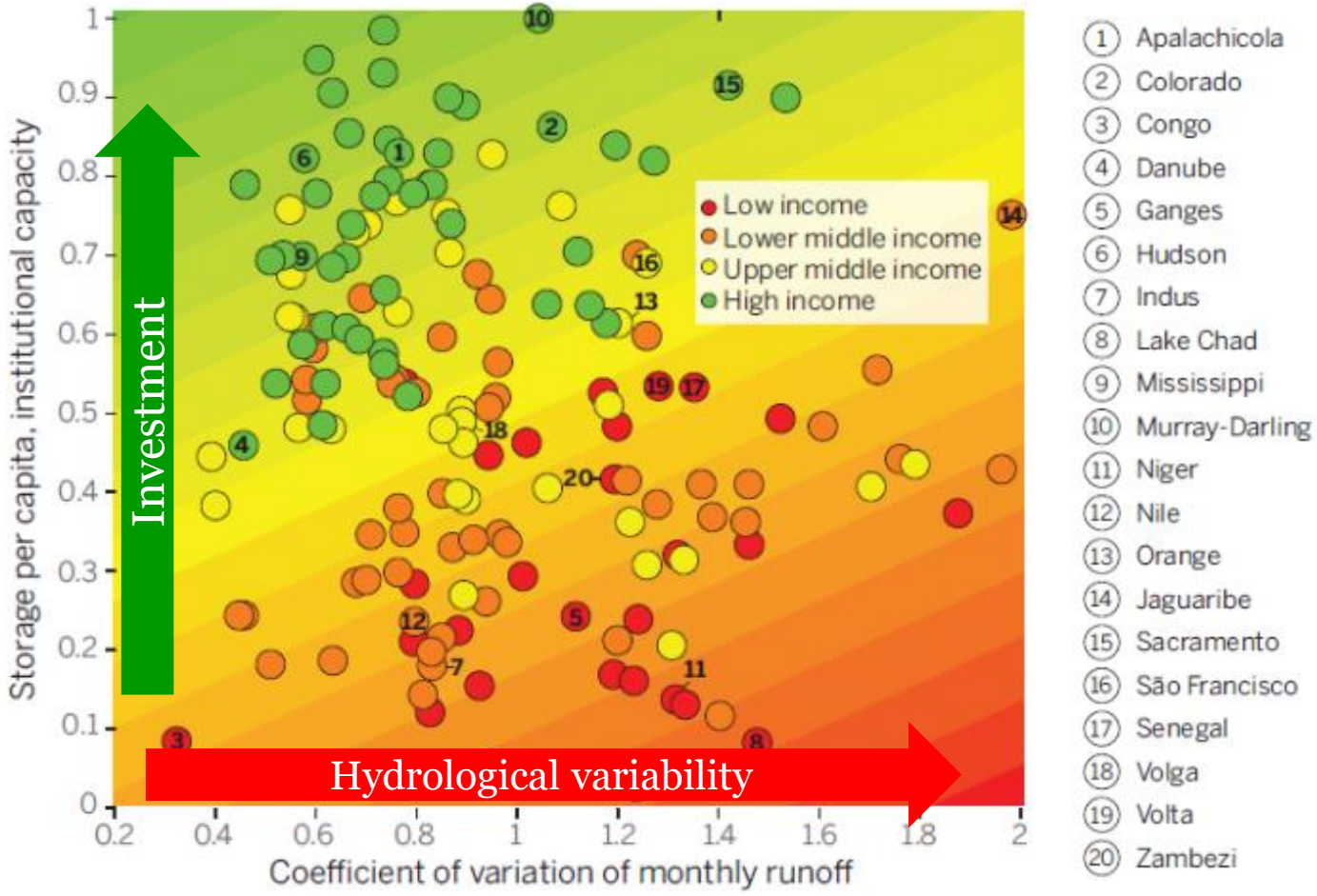
The economic case for water security

Investing in water is investing in sustainable growth

Economic growth, hydrological variability and investment



Source: Hall et al. (2014) Water Security: Coping with the curse of freshwater variability. *Science*.

On-going work

Baseline and projections – Storage & Irrigation

	baseline	projections	CAPEX/OPEX/TOTEX	Unit	Available source
Storage					
number of dams or reservoirs	Y	Y	na	index	Y
storage capacity per capita	Y	N	na	index	Y
Storage for irrigation					
economic cost of water scarcity for agriculture	Y	N	na	$	for selected countries
Irrigation					
cost of irrigation as % of GDP	Y	Y	CAPEX	% of GDP	at sub-regional level

On-going work
Baseline and projections - WSS

	baseline	projections	CAPEX/OPEX /TOTEX	Unit	Available source
Bulk water supply					
average distance to water sources for cities	Y	N	na	km	Y
Water and Sanitation					
expenditure as a % of GDP	Y	Y	TOTEX	% of GDP	Y
cost of achieving SDG6		Y	CAPEX	$	for most countries
investment gap to 2030		Y	CAPEX	$ and % GDP	at sub-regional level

On-going work
Baseline and projections – Flood protection

	baseline	projections	CAPEX/OPEX/TOTEX	Unit	Available source
Flood protection					
value of asset at risk of floods	Y	Y	na	index	Y
value of urban property at risk of floods	Y	N	na	$	for selected countries
cost of coastal protection	Y	N	CAPEX	% GDP	at sub-regional level
cost of river flood protection	Y	N	CAPEX	% GDP	at sub-regional level

On-going work
Financing strategies

	Baseline	Projections	Source
Financing strategies			
Respective role of revenue from tariffs, public finance	na	na	
ODA flows	WSS	na	OECD
Financing options			
Experience with commercial finance	anecdotal	na	Thomson Reuters, Pregin, etc.
Equity			
Macro affordability	Y	na	WB
Micro affordability	na	na	na (household survey)