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Asian Water Development Outlook

Lessons Learned

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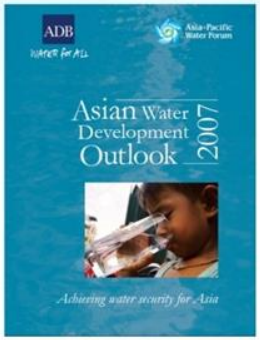
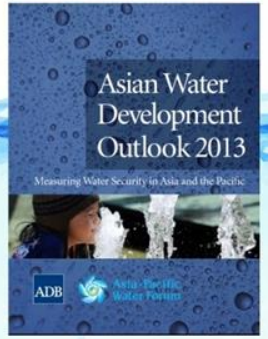
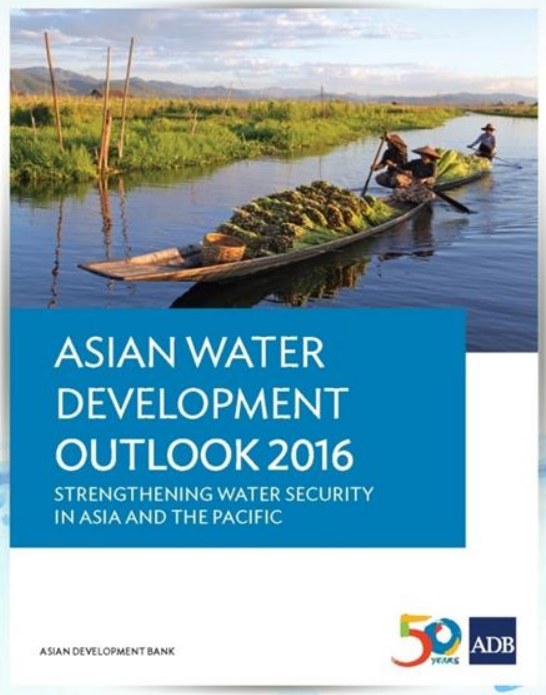
Asia-Pacific Water Forum

Asian Water Development Outlook (AWDO)

Strengthening Water Security in Asia and the Pacific







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Water Challenges of Our Region

- Reliable access to adequate volumes of acceptable quality water equitably for all uses and users.
- Envision complementarity among sectors – Not competition
- Prioritize use based on humanitarian, social, economical and environmental demands
- Sustain economic growth
- Mitigate Climate change

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AWDO Objectives

- To Provide an overview of the Water Security of DMC's
- To guide policy reforms and capacity building
- To influence investment priorities
- To show progress over time - comparing 2013, 2016, 2020
- To support operational areas of ADB : setting investment priorities
- Be a communication tool on Water Security for the Asia and Pacific region

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5 Key Dimensions

Key Dimension 1
Household Water Security
Satisfy **household** water and sanitation needs in all communities

Key Dimension 2
Economic Water Security
Support productive **economies** in agriculture and industry

Key Dimension 3
Urban Water Security
Develop vibrant, livable **cities** and towns

Key Dimension 4
Environmental Water Security
Restore healthy **rivers** and ecosystems

Key Dimension 5
Resilience to Water-Related Disasters
Build resilient **communities** that can adapt to change

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5 Key Dimensions and the Sustainable Development Goals

Key Dimension 1
Household Water Security

6 CLEAN WATER AND SANITATION

Key Dimension 2
Economic Water Security

2 ZERO HUNGER
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH

Key Dimension 3
Urban Water Security

6 CLEAN WATER AND SANITATION
11 SUSTAINABLE CITIES AND COMMUNITIES

Key Dimension 4
Environmental Water Security

6 CLEAN WATER AND SANITATION

Key Dimension 5
Resilience to Water-Related Disasters

6 CLEAN WATER AND SANITATION
11 SUSTAINABLE CITIES AND COMMUNITIES

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Quantifying Water Security

- Each KD is a combined measure of various 'states' of the water system
  - KD 1 = f (water supply (%), sanitation (%), DALY)
  - KD 2 = f (**broad economy**, water productivity in agriculture, industry, and energy)
  - KD 3 = f (urban water supply (%), sanitation (%), flood)
  - KD 4 = f (pressures/threats, **flow alteration**, **governance**)
  - KD 5 = f (exposure, vulnerability, capacity)
- Each KD is scored at a scale of 1 – 20
- National Water Security is sum of the 5 KDs – scale 1 - 100
- National Water Security Index: 5 stages:
  - Stage 1: Hazardous (score < 36)
  - …….
  - Stage 5: Model (score >96)

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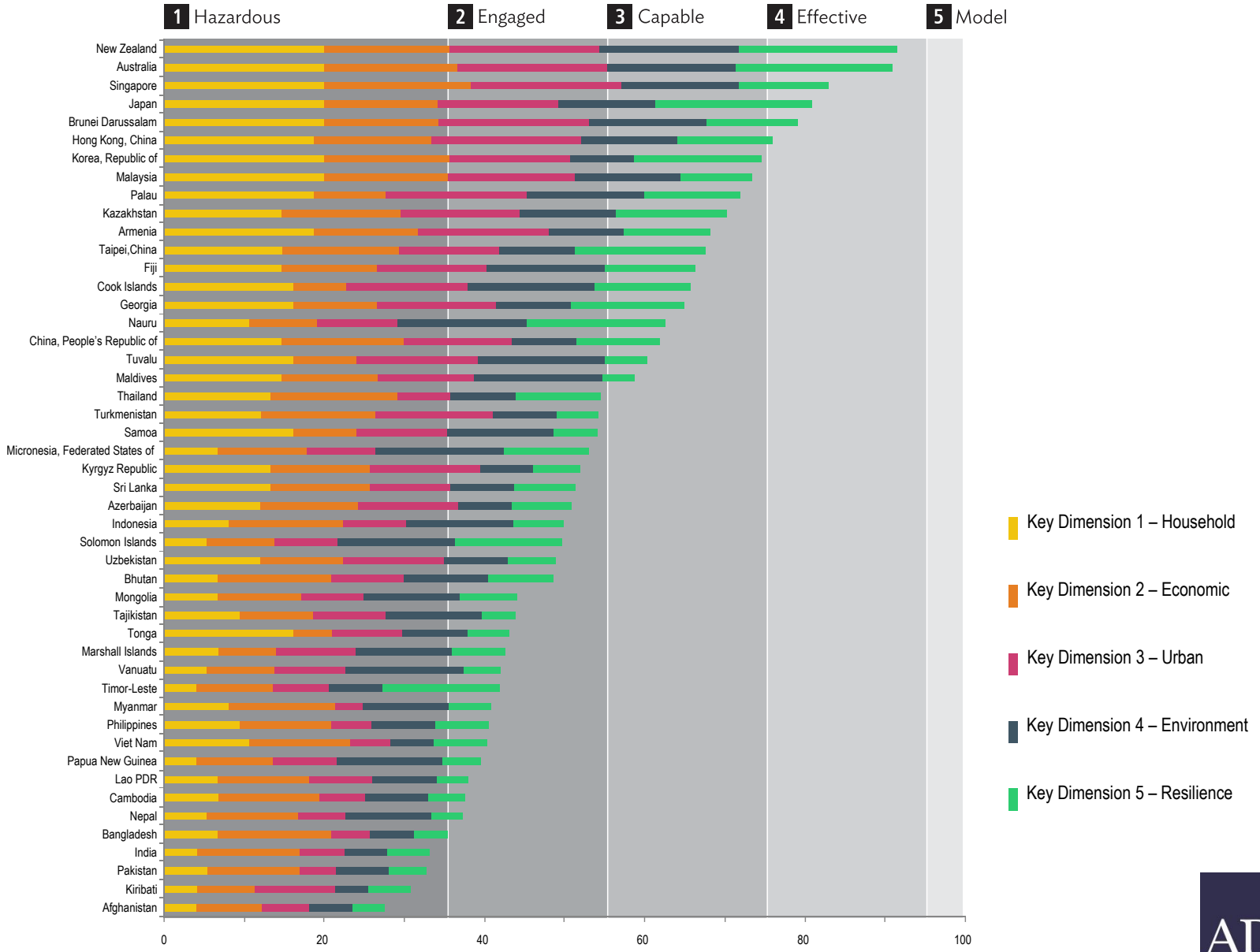
48 Countries



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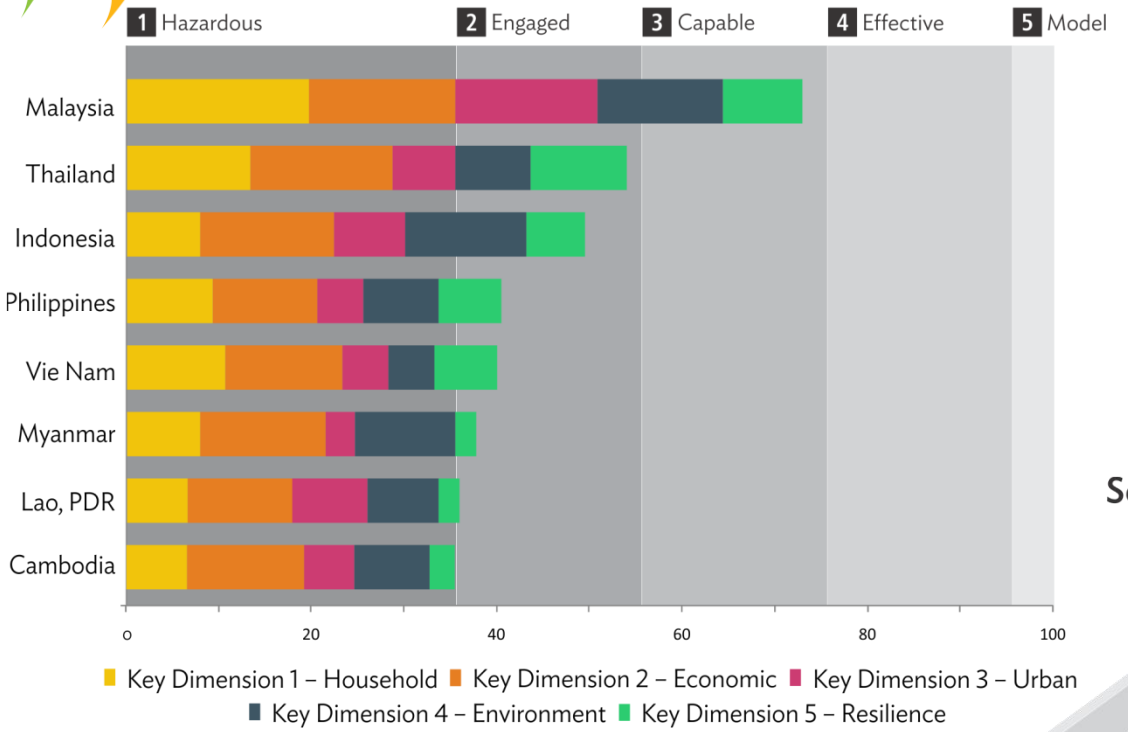
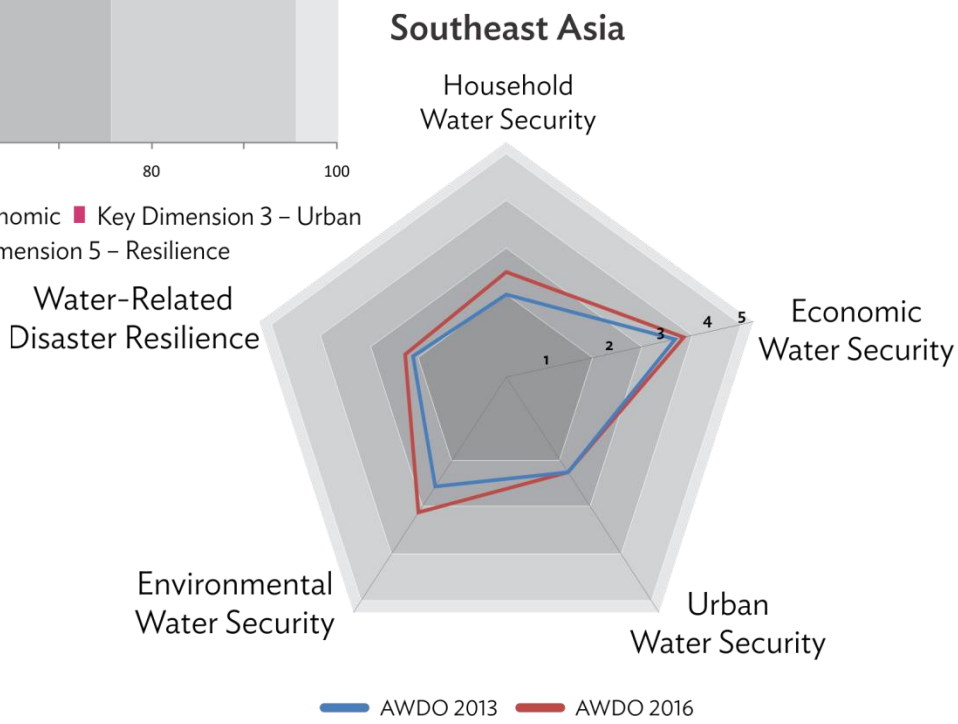
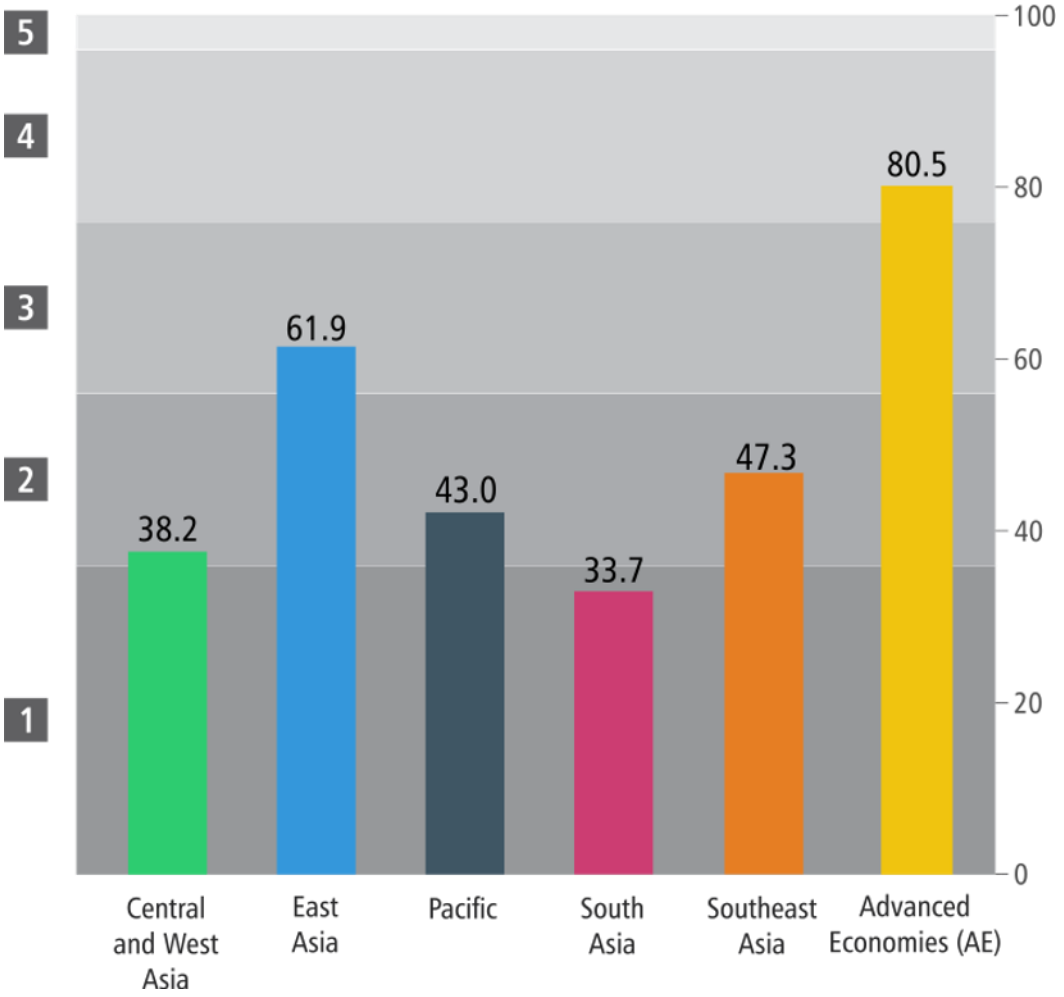
SOUTHEAST ASIA







Regional Water Security Index

Country applications AWDO
- applied at sub-national level: province / river basin

- Mongolia
  - KD1 is rural; KD3 is urban
  - herders and dzud included as sub-indicators
- Bhutan
  - KD1 is rural
  - other sub-indicators
- China
  - Urban WS replaced by Ecological WS
  - other sub-indicators
  - looked in the future and measures to be taken

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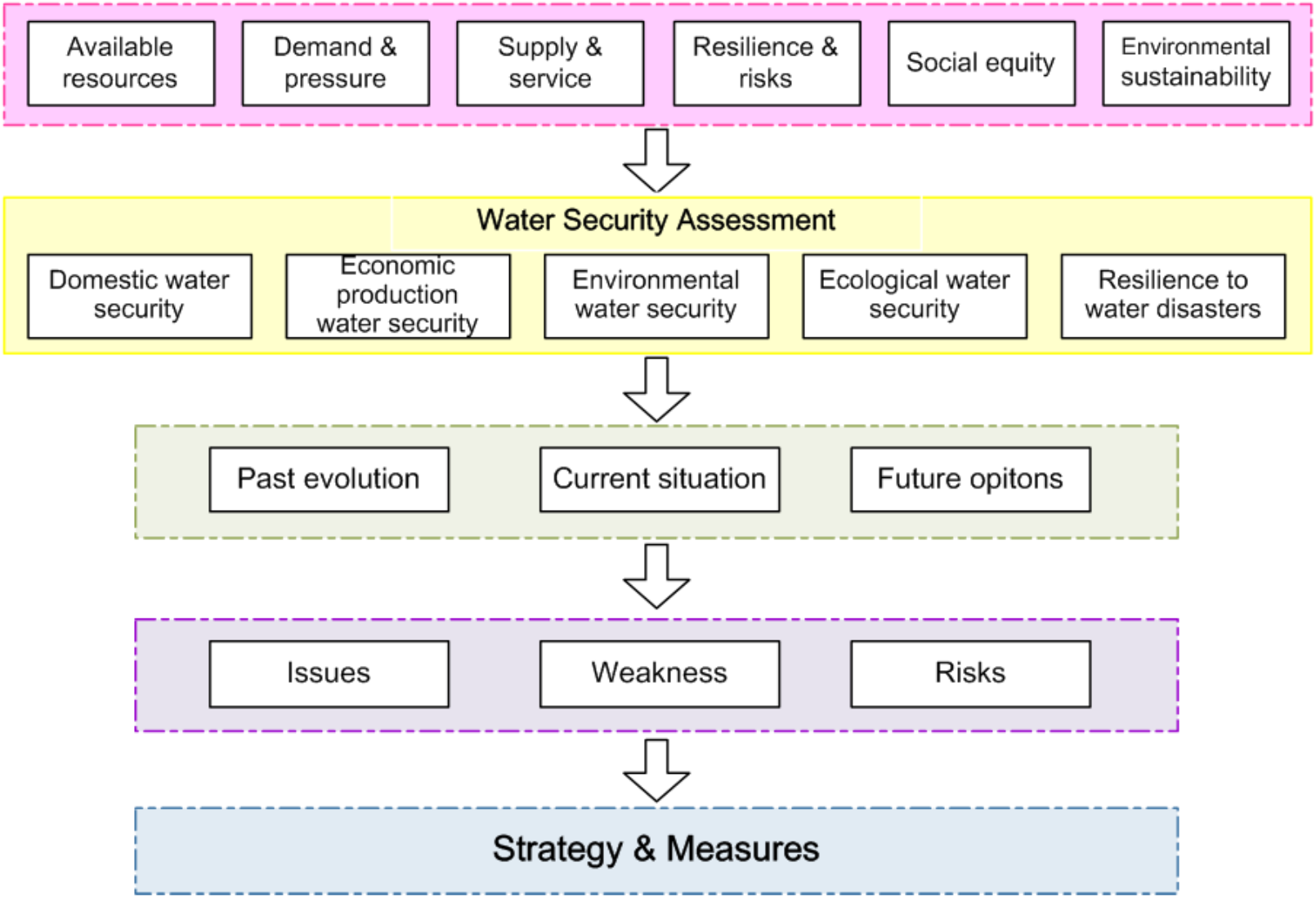
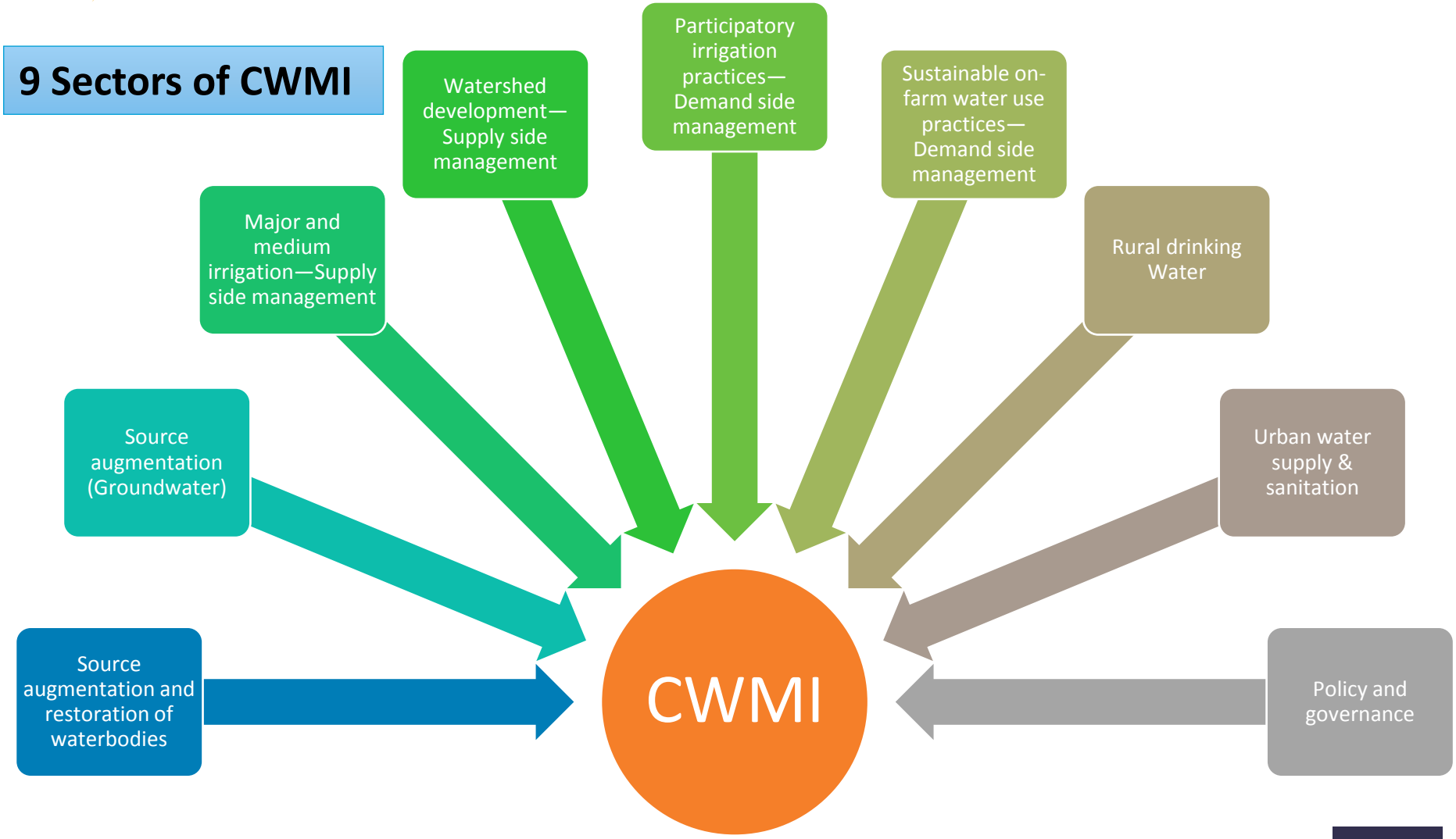
Learning From Others: PRC Approach

Water Security approach PRC



Learning From Others: Indian Approach

9 Sectors of CWMI



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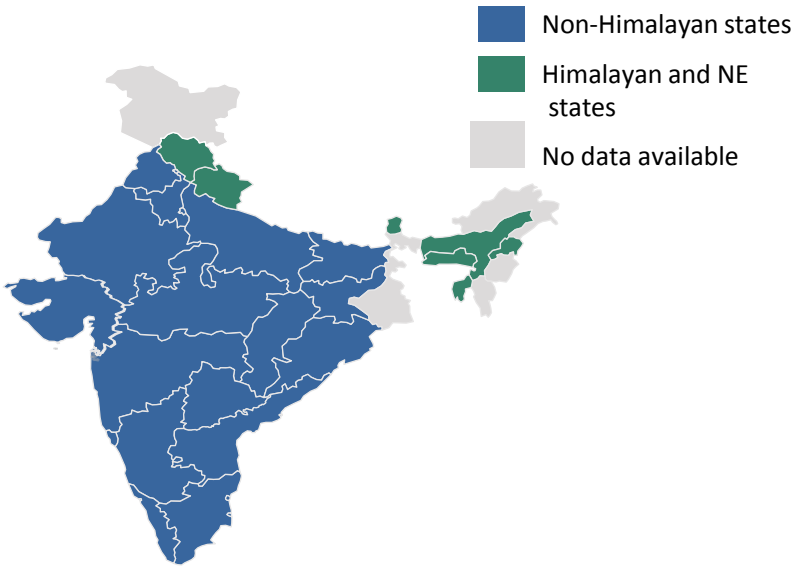
The Index comprises 9 broad sectors covering 28 indicators

Indicator sectors and weights

No.	Sectors	Weights
1	Source augmentation and restoration of waterbodies	5
2	Source augmentation (Groundwater)	15
3	Major and medium irrigation—Supply side management	15
4	Watershed development—Supply side management	10
5	Participatory irrigation practices—Demand side management	10
6	Sustainable on-farm water use practices—Demand side management	10
7	Rural drinking Water	10
8	Urban water supply & sanitation	10
9	Policy and governance	15
	Total	**100**

- The nine sectors cover **28 indicators**, with the weights equally divided across a sector's indicators
- **Focus on groundwater, irrigation, and policy action**—highlighting the growing groundwater crisis, India's low irrigation utilization, and the importance of effective policy frameworks

Classification of states into Non-Himalayan and Himalayan



- The reporting states were divided into two special groups – **'Non-Himalayan states'** and **'Himalayan and NE states'**, to account for the different hydrological conditions across these groups
- No data from UTs

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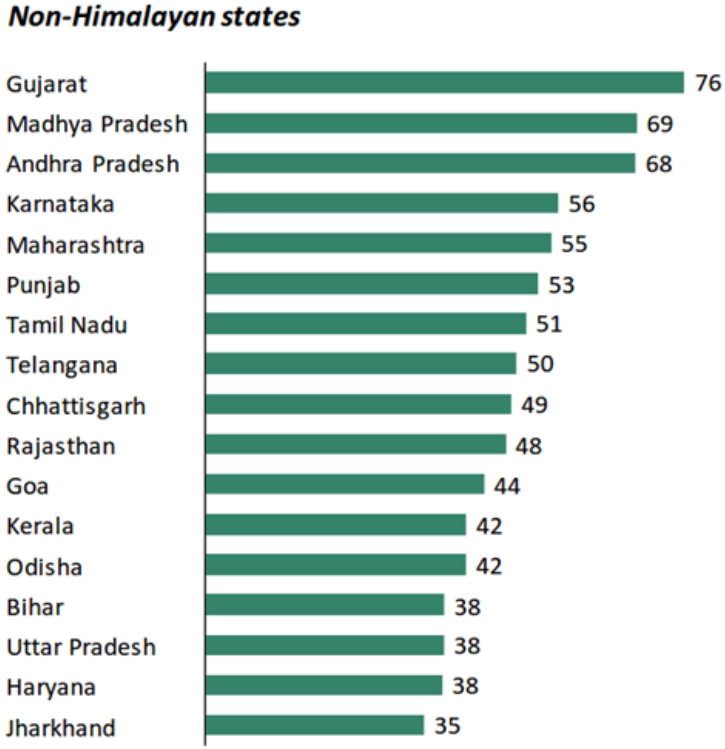
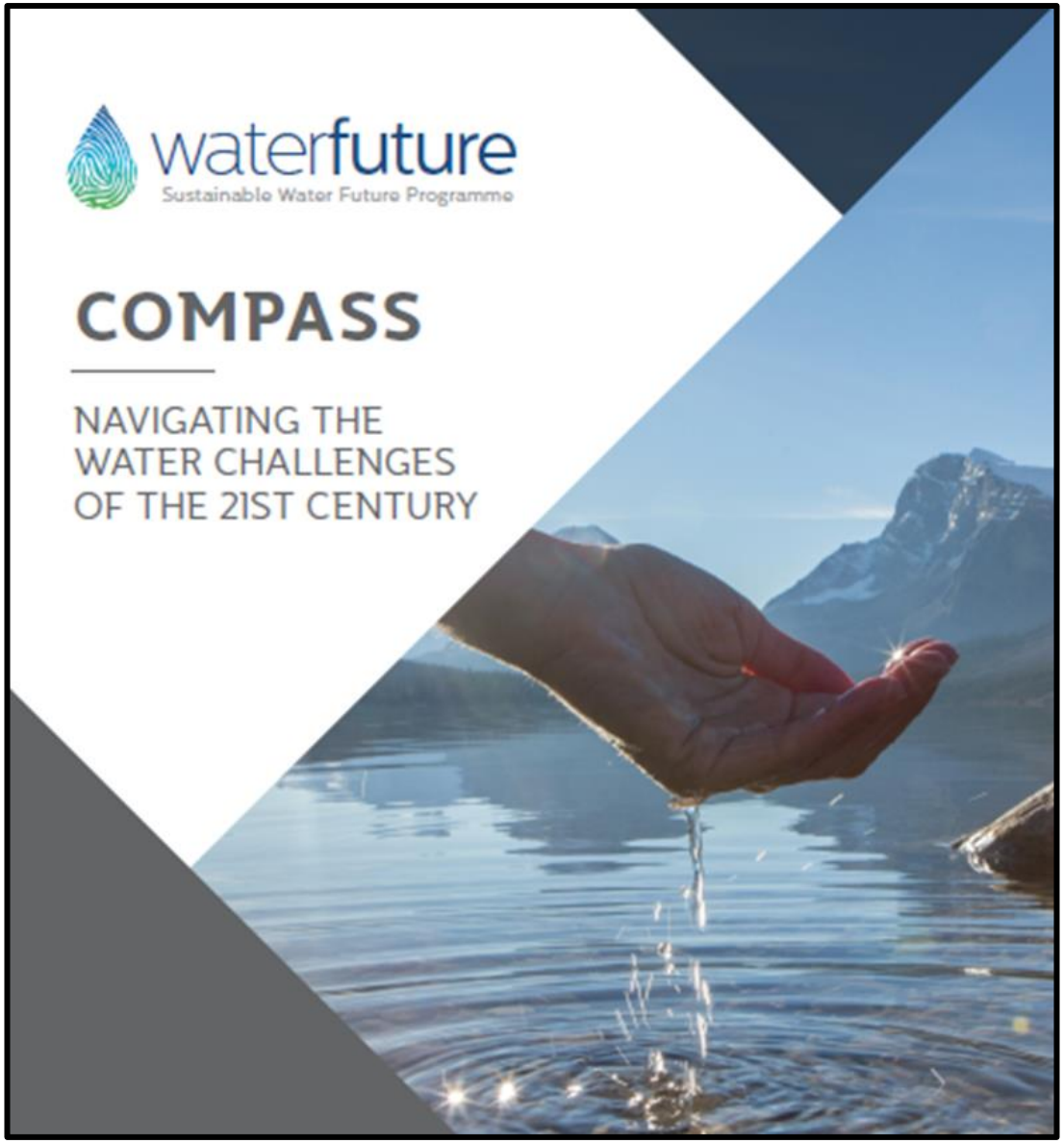
India's Composite Water Management Index

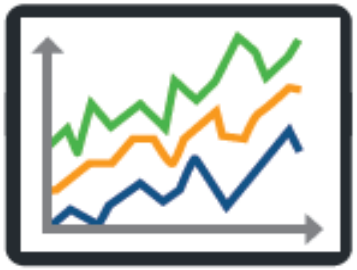
- Strong similarities in objective and scoring approach
- 5 'themes', 9 sub-themes, 28 indicators
- Applied at state level
- Data provided by states, via data portal
- Differences with AWDO
  - more resource (supply and demand) oriented
  - addressing the specific issues of India (gw, irrigation)
  - indicators are more 'action' oriented
  - policy and governance included as theme
  - hazard not included



Learning from Others
COMPASS Approach


waterfuture
Sustainable Water Future Programme
COMPASS
NAVIGATING THE
WATER CHALLENGES
OF THE 21ST CENTURY

Suite

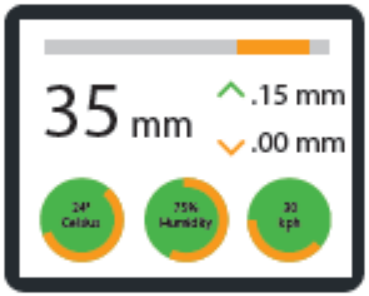


Water State Index

Medium Term Water Trend

Business Intelligence Report

Annual State of Resource Report Cards



Six Months Water Outlook

SDG Report Cards

waterfuture
Sustainable Water Future Programme

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Lessons Learned from AWDO2016

- Perceived “double counting”
  - The indicators that compose KD3 are also included in KD1, KD4 and KD5.

- Should Agriculture has own KD because it is the biggest water user?
  - This would place agriculture again in a silo.
  - The Water-Food –energy nexus also provides an argument against this

- KD4 is not applicable for small islands, while the applicability of KD2 and KD3 is also questionable.

- Regional differentiation within countries.
  - Political, Ecological or River-basin delineations?

From AWDO-2016 to AWDO-2020

- Basic approach of 5 KDs remain the same, however
  - regional differentiation big countries: river basins and provinces/states
  - stronger link with SDGs
  - sub-criteria should have link with actions to improve WS
  - transboundary issues to be included (between countries and between states/provinces)
  - more attention for governance and financing
- Consider other (adjusted) applications of AWDO approach
  - Mongolia, Bhutan, China
- Learning from other similar approaches
  - CWMI of NITI-Aayog

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AWDO2020 – Current Consensus

- Keep the 5 Key-dimensions as they are
- No separate KD for agriculture. Highlight within KD2
- KD1 address only the rural households
- KD3 covers urban households
- Include hazard in KD5
- Governance & Finance will not figure directly in the AWDO in any formal rating system – Good practices will be documented
- Data to be available to potential users
- Serious Game on Water Security is considered
- Each KD will have a technical team to revisit the methodology and data used.

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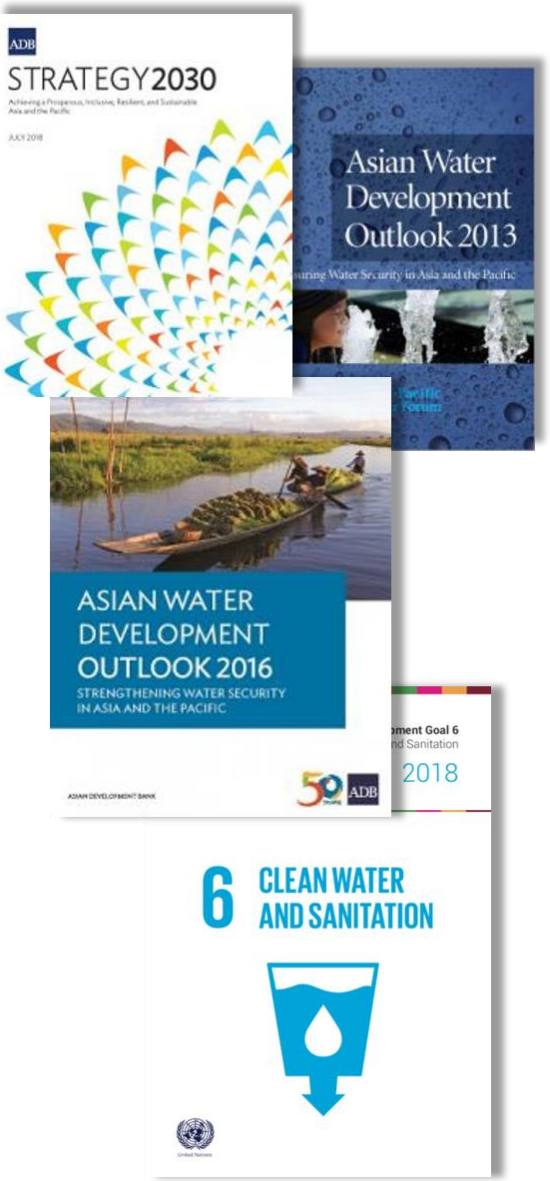
References

- AWDO 2013, 2016
- Methodology and Data Paper, 2016
- IWC Concept note for 2020
- ADB Strategy 2030
- SDG Framework – UN Water paper
- OECD: Water-governance-initiative



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Thank you.