



# Asian Water Development Outlook (AWDO 2016)

Ma Wen

Deputy Executive Director

Asia-Pacific Center for Water Security (APCWS)

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# From AWDO 2013 to AWDO 2016

- In 2010, Tsinghua University initialized the Asia-Pacific Center for Water Security, in collaboration with the Asian Development Bank (ADB).
- In August 2011 ADB approved financial support to give technical assistance to the Center.
- In September 2012, Partnership Agreement was signed.



# From AWDO 2013 to AWDO 2016

- Missions
- Promote advanced research (Research papers)
- Share knowledge (Trainings)
- Support smart decision making (Leading the preparation of AWDO 2016 is one of the major missions of the Center).
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# From AWDO 2013 to AWDO 2016

## Activities:

- *“International Workshop on Water-Food-Energy Security Nexus – Theory and Methodology for AWDO III”* was held on November 26-27, 2012 in Beijing
- A mission in Jan 2013 to ADB headquarter: understanding the indicator system/ receiving data for AWDO II from ADB
- Building website and database to support the research work of AWDOIII
- *“Assessing Water Security in the Asia-Pacific – Kick-off Meeting for AWDO III”* was held on March 3-4, 2012 in Kunming



# From AWDO 2013 to AWDO 2016

- The water security analysis in the five key dimensions with the developed indicator systems has made the AWDO 2013 approach a systematic and comprehensive water security monitoring model.



# From AWDO 2013 to AWDO 2016

- There are still, however, limitations of the indicator systems and gaps in data/information in AWDO 2013.
- Topics such as governance, gender, water-food-energy nexus, climate change and groundwater, etc., were not well covered.



# From AWDO 2013 to AWDO 2016

Key Dimension	AWDO 2013 Indicator system (limitations, uncertainty, validity, etc.)	Data	Missing topics
<b>KD1 Household Water Security</b>	<ul style="list-style-type: none"> <li>Lack of data on other household water security measures other than access to water and sanitation;</li> </ul>	<ul style="list-style-type: none"> <li>Inadequacy and lack of comparable data across member countries.</li> </ul>	<ul style="list-style-type: none"> <li>May consider including indicators about people with disabilities in KD1, or other KDs if more appropriate.</li> <li>What is the minimum required liters/day/person?</li> <li>Should we define any specific minimum water quality?</li> </ul>
<b>KD2 Economic Water Security</b>	<ul style="list-style-type: none"> <li>Energy indicator focused only on hydropower;</li> <li>Water, food and energy sectors are very different in governance – interesting to see governance indicator.</li> </ul>		<ul style="list-style-type: none"> <li>Other than agriculture, energy and industry, KD2 did not consider other water dependent sectors such as transport, recreation and aquaculture, etc;</li> <li>No data on groundwater use.</li> </ul>
<b>KD3 Urban Water Security</b>	<ul style="list-style-type: none"> <li>Lack of categorization of cities (e.g. megacities form smaller cities/towns);</li> <li>“Wastewater index” is difficult to interpret.</li> </ul>	<ul style="list-style-type: none"> <li>A lot of derived data rather than actual data were in used in compiling the indicators.</li> </ul>	
<b>KD4 Environmental Water Security</b>	<ul style="list-style-type: none"> <li>The model used for KD4 is held by Prof. Charles Vorosmarty and is currently not available for the river basin organizations to use and validate the model;</li> <li>May need to include stratification of rivers and have management indicators in river to measure state of river.</li> <li>How to deal with the small island states?</li> </ul>	<ul style="list-style-type: none"> <li>The current model is complex and has too many indicators which requires good local data that may not exist;</li> <li>May consider data emphasis on the themes, rather than on indicators (i.e. watershed disturbance, pollution, water resource management, and biotic factors);</li> <li>Data collection – may consider crowd sourcing and big-data analysis.</li> </ul>	<ul style="list-style-type: none"> <li>Wetlands and groundwater were not included.</li> </ul>
<b>KD5 Resilience to Water Related Disasters</b>	<ul style="list-style-type: none"> <li>Drought needs to be discussed in a larger framework of water management because it is different from floods;</li> <li>A standard scale for resilience was used and this may create questions such as whether it is fair to assume some countries can never reach the higher levels for KD5.</li> </ul>	<ul style="list-style-type: none"> <li>Need country/localized information for proper response actions and raising awareness in public.</li> </ul>	<ul style="list-style-type: none"> <li>May include urban impact of disasters and resilience which is a sub set of general.</li> <li>Resilience must include not only technical solutions. People have to be educated, early warning systems must be in place and people have to be informed about possibilities.</li> </ul>



# From AWDO 2013 to AWDO 2016

## Recommendations to the AWDO 2016 framework

- The development of AWDO 2016 has been initiated and how to make improvements to the assessment approach is the core immediate issue.
- As a minimum the research teams should assess the constraints summarized above and consider how to improve the basis for assessment of water security for the next edition, AWDO 2016.



# From AWDO 2013 to AWDO 2016

## Recommendations to the AWDO 2016 framework

- The five key dimension approach of AWDO 2013 is broadly supported and is proposed to be maintained in AWDO 2016.
- Additional research is required to strengthen the indicators within each of the dimension.
- Research may include development of weighting factors for sub-indicators; removal of duplication or possible double counting; identification of alternate indicator families for the key dimensions; etc.



# From AWDO 2013 to AWDO 2016

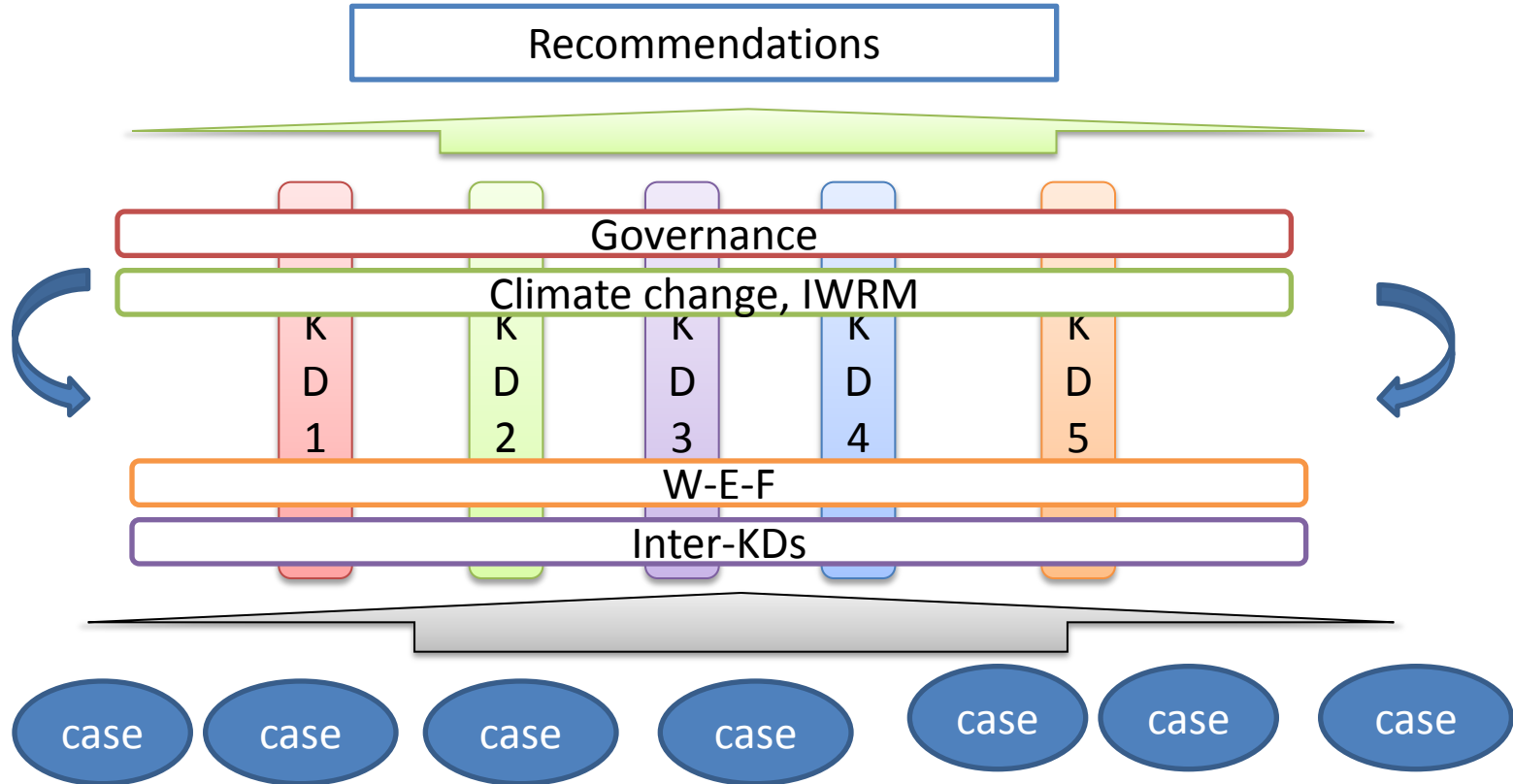
## Recommendations to the AWDO 2016 framework

More specific recommendations:

- AWDO 2016 needs to expand on the policy implications of the national water security index (NWSI) and test the correlation of the NWSI with the governance index (which was initially done in AWDO 2013);
- AWDO 2016 also needs to link more with the achievement of Integrated Water Resource Management (as a process to achieve Water Security);
- address emerging issues, especially, the water-food-energy nexus;
- validate the NWSI in various countries and downscale to smaller scales (e.g. river basins in a country) to test the process of benchmarking;
- Examine cross-cutting issues, e.g. climate change, need to be considered for case studies and supporting documents for AWDO 2016;



# Plan for AWDO 2016



# Roles of participating organizations

## Asian Development Bank (ADB)

- ADB will provide the funding support to the research activities of AWDO 2016.
- Each participating organization can apply for \$50,000-\$100,000 fund for their proposed research work in AWDO 2016. ADB award the approved grants and administer disbursement and liquidation of resources in collaboration with APCWS.
- ADB will assist APCWS in coordinating the preparation process of AWDO 2016.



# Roles of participating organizations

## Asia-Pacific Water Forum (APWF)

- Disseminate information about the preparation of AWDO 2016 to the APWF network;
- Encourage network members to assist the research teams access data and information of relevance;
- Participate in research workshops;
- Assist in dissemination of AWDO 2016 initial findings during the 7<sup>th</sup> World Water Forum in Daegu, Korea in 2015;
- Provide a Foreword for AWDO 2016;
- Assist in development of key messages and recommendations for inclusion in AWDO 2016;
- Propose reviewers for research papers and AWDO 2016 draft reports;
- Assist in development of AWDO 2016 launch publicity and media releases; and
- Lead dissemination of AWDO 2016 in run-up to Asia-Pacific Water Summit 2016.



# Roles of participating organizations

## Asia-Pacific Center for Water Security (APCWS)

- Ensuring and promoting personal and organization commitment to the AWDO 2016 process amongst the partners in the region by regular communication and engagement;
- Implementing a knowledge management system for AWDO 2016, specifically for the datasets for the different key dimensions;
- Developing a web-based sharing point for research teams to upload case studies and other publications (more frequently than the longer term publication of the AWDO report);
- Promoting the evaluation of the AWDO 2016 research outcomes and draft reports; and
- Coordinating and conducting collaborative research on water security with Centers, ADB partners and the knowledge hubs of APWF.



# Roles of participating organizations

## The participating organizations

- The participating organizations are expected to actively participate in the activities in the AWDO 2016 preparation process.
- The specific roles of the participating organizations will be agreed in relation to approved research proposals, but should include active participation in the working conferences, and delivering the AWDO 2016 research results on time.
- In addition to the grant resources made available for approved research studies, participating organizations are expected to provide parallel in-kind contributions including research staff time, office space, data, etc. for the research work of AWDO 2016.





# Roadmap

Milestones	Activity/Output
June 2014	ADB call for proposals
July 2014	Evaluation and contract award
November 2014	AWDO progress workshop - Beijing
January 2015	Interim papers on AWDO indicators
April 2015	AWDO presentations at WWF7
October 2015	AWDO drafting workshop - Beijing
November 2015	Draft of AWDO 2016 circulated for peer review
February 2016	Final draft of AWDO 2016
April 2016	AWDO 2016 published



# Thank You!

