

Asia-Pacific Regional Synthesis and Commitment Session at the 7th World Water Forum

Date and Time: Wednesday, April 15, 2015, 14:40 - 19:00

Venue: B1F, Convention C/ Room 5/ GHH_B 105, Hyundai Hotel Gyeongju, Republic of Korea

Summary Report

1. Introduction

- 1.1. The Asia-Pacific Regional Synthesis and Commitment Session aggregates and synthesizes the key messages and outcomes from 11 thematic sessions and generates a mutually agreeable list of topics of common importance to the Asia-Pacific region. The detailed background and objectives of it are in **Annex A**.
- 1.2. The session is organized by the Asia-Pacific Water Forum (APWF) in cooperation with a range of partners, listed in **Annex B**.
- 1.3. The session program is found in **Annex C** and consists of 3 main sections:
 - (i) Regional Water Security Status
 - (ii) Regional Synthesis
 - (iii) Regional Commitments (High-level Dialogue)

A summary report of the synthesis and commitment session is below.

2. Opening Remarks

- 2.1. Dr. Kotaro Takemura welcomed participants and expressed special thanks to the coordinators of all processes, coordinators of World Water Forum, Asia-Pacific Water Forum leader organization, Asian and European banks, Food and Agricultural Organization, Singapore's PUB, UN Education, scientific and cultural organizations and the Global Water Partnership for their contributions and efforts for the success of the 7th World Water Forum and the inter-regional sessions of the Asia-Pacific Water Forum.

3. Regional Water Security Status

- 3.1. Mr. Gil Hong Kim shared on the progress of Asian Water Development Outlook (AWDO) which provides some status of water security issues in Asia-Pacific. The AWDO is a joint effort of APWF and Asian Development Bank (ADB) to provide decision makers with a quantitative and comprehensive view of the water security situation in Asia-Pacific countries.
 - Two versions of AWDO were published:
 - The first version, which sensitized the leaders in the region to the importance of water security and the need to improve water governance, was published in 2007.
 - The second version, which provided quantitative tools for assessments of water security in the region with specific

recommendations for actions and implementations, was published in 2013.

- To have a common understanding of water security, AWDO has mobilized all expertise in the region and this has led to the definition of 5 key dimensions of water security and how to quantify these 5 key dimensions.
- The 5 key dimensions are:
 1. Household water security - Satisfy household water and sanitation needs in all communities
 2. Economic water security - Provide water of sufficient quantity and quality to our productive economies in agriculture and industry
 3. Urban water security - Ensure water and wastewater facilities and the prevention of urban flooding
 4. Environmental water security - Prevent pollution and watershed disturbance
 5. Resilience - Prepare community to deal with drought and flooding risks
- ADB is committed to support the countries in the Asia-Pacific region to increase its water security. Absolute water security cannot be achieved, but it can be increased by taking action. ADB's vision and strategic approaches are laid down in their operation plan, and the operation supports:
 - investment in infrastructure and services
 - capacity development
 - knowledge sharing
 - regional cooperation
- AWDO will be used as guide by ADB in establishing more priority actions to take.

3.2. Ms. Yasmin Siddiqi presented the details of indicators that are used to quantify water security and discussed the quantitative results of different countries.

Key Dimensions

- For each key dimension, ADB and other development partners and key agencies look further on development of robust indicators. E.g. for KD1, ADB looked at the % of water supply available and the % of sanitation provided to the communities and used these as the key indicators to develop the stage of water security. Each KD is scored at a scale of 1-5.
- A comparison of a few countries was presented. Japan and New Zealand scored 5/5 on the household security. In contrast, India and Nepal only scored 1/5 and this indicated weakness and hazardousness in household security.
- India and Nepal scored low, and the results tied up well with the latest findings of the report by Global Water Partnership: the global dialogue on water security which highlights the weaknesses of water security in the

South Asia region. This demonstrated a good correlation of AWDO and that latest study.

National Water Security Index (NWSI)

- The NWSI, which is an overall ranking of 48 countries in terms of all dimensions, was discussed.
 - 8 out of 48 countries scored only 1, which is the lowest, meaning that the national water situation is hazardous and there is a large gap between the current state and the acceptable level of water security. Countries in this category include: Afghanistan, Bangladesh and India.
 - 60% of all the countries are in the engaged stage. This means that legislation and policies are being supported by the government and capacity building programmes are on-going, institutional arrangements are improving and the level of public investment is increasing. Countries in this category include: Azerbaijan, Bhutan and China.
 - 20% of countries fall in the capable category. This means that there is continuing capacity building, improving the rate of public investment into infrastructure, stronger regulation and enforcement as well as national development agendas prioritizing water and environment and shifting towards improving local, technical and financial capacity. Countries in this category include: Japan, Singapore and Armenia.
 - 2 countries got the highest score of 4. This demonstrated that water security initiatives are being built in the national policy and rural development master plans. New Zealand and Australia fall into this category.
 - The South Asia region has the lowest score amongst all other regions in terms of NWSI. It is important to feedback this message to policy makers and for them to acknowledge that water security is a problem and will continue to be a problem in South Asia.

AWDO

- AWDO demonstrates the importance of governance because it and the key dimensions look at the policy frameworks, regulations and capacity building. These are the elements of water governance that need to be emphasized as well as investments in infrastructure. AWDO is a good tool to gauge aspects of governance.
- AWDO can also be presented in the form of a pentagram, which aims to show inter-dependencies between the dimensions. One country may score high in a particular key dimension but lower on the other. Ultimately, a high level of water security should be reached in all dimensions. AWDO

provides a tangible correlation between the IWRM process and strengthening water security.

- AWDO's key messages are that it:
 - Generates public awareness by illustrating the impacts of water management on the quality of life and economic sustainability;
 - Helps to convince decision makers to allocate resources to improve water security. With the simple numbers, decision makers can have an overview of the status of their country;
 - Supports that this approach can be used (and is being used) in other parts of the world.

AWDO 2016

- AWDO 2016 will build on AWDO 2013 by refining some of the key indicators that have been used to assess the status of key dimensions, e.g. the inclusion of groundwater as a measure of water security. AWDO 2016 will also link with SDGs and other global initiatives.
- The target audience will remain the same: the public (raising public awareness) and decision makers (who can facilitate by providing further financial resources into the area where are weaknesses in water security).
- Case studies will also be added in AWDO 2016 so as to further ground the concept of AWDO with real-life case examples.
- AWDO 2016 will be making stratified recommendations to provide more specific details in terms of key dimensions.
- The timeline for publication will align with partner/research meetings in August and December 2015, and AWDO 2016 will be launched during WWW-Stockholm in August 2016.

4. Regional Synthesis

4.1. Water and Cities

- Dr. Shahbaz Khan delivered the following key messages for water and cities:
 - The underlying causes of water scarcity, lack of sanitation, water pollution and urban flood in Asia and the Pacific are social inequalities further accentuated by economic disparities across the region.
 - Failing water services linked with water and traffic theft are becoming key issues for the urban poor as well as for the governments.
 - There are several demonstrated eco-biotechnologies which need the attention of investment banks and local developers for large scale implementation.
- Dr. Shahbaz Khan also shared his recommendations for moving forward with the SDGs:

- Develop a base use of eco-biotechnologies in the management of urban water systems (technical, economic, financial and social).
- A socially inclusive system led by strong political support stakeholder empowerment.
- A fully enforced legal system clearly defining responsibilities between stakeholders and regulators.
- A clear and secured financial commitment for water security and sanitation across the region supported at all levels.

4.2. Water and Green Growth

- Dr. Salmah Zakaria mentioned that Water and Green Growth (WGG) is a concept that emphasizes the role of water in achieving economic well-being and social equity, coupled with the protection and revitalization of ecosystems. Thus, it can be a solution to water-related and development challenges in the Asia-Pacific region.
- The key messages that she brought up are:
 - WGG is a crucial paradigm and development strategy.
 - To replace the vicious cycle of resource-intensive and quantitative growth with a virtuous cycle of economic development that is resource-efficient and qualitative.
 - Sustainable and efficient water resources management is central to realizing green growth and to address many water-related challenges specific to Asia-Pacific.
 - Strategies must be context-specific and consider political and socio-economic particularities and needs.
 - Strong leadership and political commitment is required to lead indicative and integrated planning.

4.3. Water and Food Security

- Mr. Thierry Facon presented the following key messages on water and food security:
 - The Asia-Pacific region is facing two transitions: a structural transformation of agriculture in the context of fast economic growth, and a necessary transition to sustainable agriculture to maintain its narrow natural resources base.
 - The challenge for decision-makers and stakeholders is managing both transitions at the same time sustainably and equitably, meeting the aspirations of farming and rural communities.
 - Decisions on key policy options and critical details will require clarity on major socio-economic orientations and societal preferences related to the structural transformation of the agricultural sector within the overall transformation of the national economies and the transition to green development patterns.

- The need of investing in agriculture - a dynamic agricultural sector raises labour productivity in the rural economy, pulls up wages and gradually eliminates the worst dimensions of absolute poverty.
- In order to achieve a coherent, effective and feasible set of policies, strategies and interventions explicitly addressing the following policy dilemmas, through trade-offs and their inherent difficulties, will be critical:
 - Managing transitions: supporting resilience or a combination of improvements and exit strategies;
 - Managing the informality of the water economies;
 - Economic water productivity vs. equity and other strategic goals;
 - Resource use efficiency vs. resilience and redundancy;
 - Possibly diverging national, river basin and local objectives;
 - Political feasibility: “ideal” vs. second-best options; and
 - Realistic financial arrangements and economic prospects for water operators and farmers vs. incentives for performance.
- The region’s water and food security will hinge upon rural prosperity. The following vision for water and food security in Asia and the Pacific is therefore proposed, in conjunction with the Sustainable Development Goals to 2030: *“Food and nutrition security for all and vibrant rural communities in a water-secure Asia-Pacific, through managing the region's multiple social and economic transitions equitably and sustainably”*.
- Countries are called to invest and provide an enabling environment for farmers, civil society and the private sector investment in Key Action Areas, seen as levers to accelerate reaching the vision:
 - Implementing sound and innovative water accounting and auditing to support decision-making and management.
 - Evolving risk management strategies for national food security policies under water constraints and economic transitions.
 - Adapting agricultural and rural water management to promote a renewed focus on ensuring farmer and rural prosperity for managing socio-economic transitions sustainably: plotting new futures for irrigation and drainage under long-term vision.
 - Supporting investments boosting ecosystem and water productivity, maintaining water quality across agriculture, fisheries, aquaculture, irrigation and drainage-recognizing

its multiple services - and their supply chains and supporting rural transformations.

- Managing the changing dynamics of the Water-Energy-Food Nexus.
- Capacity development.

4.4. Water-related Disasters and Climate Change

- Dr. Ramesh Vaidya shared 5 key messages and actions for each message on water-related Disasters and climate change issues.
 - Message 1: Emerging technologies and strengthened 'end-to-end' information systems can build flood resilience:
 - Invest in modern hydro-met stations to collect and store data.
 - Invest in information and communication technologies, both terrestrial and satellite-based, to transmit data in real-time.
 - Develop appropriate policies and mechanisms for supportive interface between institutions at national and community levels.
 - Develop institutional arrangements from end to end for sending flood alerts up to the last mile.
 - Invest in capacity building through training programmes for government and community organizations.
 - Message 2: Index-based weather insurance can support improved drought resilience:
 - Invest in hydro-met networks for accurate and timely weather data.
 - Engage NGOs as social mobilizers to raise awareness of the benefits of insurance products.
 - Invest in science to understand better the correlation of the index with actual crop yields.
 - Invest in evidence-based risk assessment to serve as an input into developing better insurance products.
 - Develop reinsurance markets for international risk pooling.
 - Message 3: Evidence-based risk assessment is essential in promoting water-related disaster risk management:
 - Conduct risk assessment to identify the nature and magnitude of risk.
 - Assess the effectiveness of preventive investment, land use planning, and emergency actions.
 - Collect and archive hazard and damage data to develop indicators that make risk assessment evidence-based.

- Apply the latest science and technology to promote practical risk assessment.
- Message 4: Better understanding of spring hydrogeology and improving local water governance can help revive drying springs and build resilience to seasonal water shortages:
 - Identify recharge areas accurately.
 - Prepare hydrogeological layout maps of the spring aquifer and recharge area.
 - Build simple artificial recharge structures, e.g., trenches.
 - Incentivize rainwater harvesting in farmers' fields.
 - Build local institutional arrangements to regulate demand.
- Message 5: Linking government water policies with local adaptation strategies can build resilience to water stress:
 - Build a mechanism for communication between policymakers/decision-makers and local communities aimed at creating a supportive interface between government policies and programmes and the climate adaptation initiatives adopted by communities at the local level.
- Implications of the key messages on the role of stakeholders:
 - Need to enhance the role of national governments in developing appropriate policies, legislation, and regulations—and in building mechanisms for a supportive interface with local level initiatives.
 - Need to promote the role of the private sector in promoting innovative insurance products.
 - Need to enhance the role of knowledge institutions and NGOs in generating scientific knowledge and disseminating them at community levels.

4.5. Integrated Water Resources Management (IWRM)

- Mr. Koichi Otomo updated on the implementation of IWRM focusing on river basin level.
- He mentioned that IWRM can gradually achieve better and sustainable water resources management moving upward like a spiral by responding to changing social, economic needs or new impacts.
- NARBO's IWRM Indicator was launched. Indicators are associated with the progress phase of IWRM process.
- Summary of the discussion during inter-regional sessions:
 - Re-affirm that IWRM is an adaptive management process that adopts an inclusive approach bringing stakeholders together to increase water security and improve water governance.

- Re-acknowledge that the Asia-Pacific region has ample experience, knowledge and innovative technology on IWRM to be shared.
- Endeavor to make more opportunities to share experience and knowledge and enhance networking in the region to bridge the gaps in a smart way.
- Contribute to achieve international goals and targets such as Sustainable Development Goals (SDGs) on water and IWRM and resolve to take follow-up actions.
- Endeavour to improve our engagement with donors, UN-agencies, civil society, private sector, decision-makers and with actors outside the water sector to ensure that water is integrated into key socio-economic development decisions.

4.6. Rural Water and Sanitation

- Ms. Hilda Winartasaputra shared the Review of Asia's Progress in Sanitation and Hygiene which was presented by Dr. Aida Karazhanova from UN ESCAP during the inter-regional session on rural water and sanitation.
 - Highlighted the need for improvements in sanitation and wastewater management. Asia is lagging behind.
 - Policies and strategic government investments may spark the private sector as a strong financial contributor and support households.
 - Community empowerment and community participation improves governance, innovation, infrastructure quality, cost effectiveness, and the sustainability of projects.
- The Youth4ASIA Solutions Search Award was presented during the inter-regional session, during which the winners of the award were announced. The winning organizations will receive mentorship and seed funding.
- The key messages from the inter-regional session on rural water and sanitation are:
 - Community empowerment and community participation improves the governance, innovation, infrastructure quality, cost effectiveness, and the sustainability of projects.
 - Youth are vital links to communities and valuable members of civil society.
 - Youth are innovative, energetic, and knowledgeable. If further engaged and empowered, they can drive the changes needed in improving water and sanitation in Asia.

4.7. Development of Cooperation in the Aral Sea Basin

- Mr. Vadim Sokolov mentioned that a special issue session on the "Development of Cooperation in the Aral Sea Basin to Mitigate

Consequences of the Environmental Catastrophe" was held by the Executive Committee of the International Fund for Saving the Aral Sea (EC IFAS) in collaboration with the network of the Global Water Partnership in Central Asia and Caucasus (GWP CACENA).

- The main goal of the session is to intensify cooperation between the EC IFAS and the international community--in particular, international organizations, financial institutions, donors, foundations and countries--in order to attract their attention and efforts to address the problems of the Aral Sea and the implementation of the third phase of the Aral Sea Basin Program (ASBP-3), approved by the Governments of Central Asian countries.
- He shared the outcomes of the special issue session which are the proposed solutions by the participants:
 - Strengthening of cooperation within IFAS – to ensure close interaction between the Member States of IFAS to address water and environmental problems of the Aral Sea Basin; strengthen the capacity of the executive bodies of IFAS; and utilize the potential and advantages of IFAS in addressing regional issues. The measures to promote and develop dialogue within the IFAS should be supported in order to achieve consensus between the countries.
 - Ensuring implementation of the ASBP-3 - it is necessary to take urgent measures to implement the regional and national ASBP-3 programs and projects, and, in this regard the financial and technical assistance from international organizations and financial institutions and donor governments should be extensively involved; to ensure greater involvement of the executive bodies of the IFAS for more effective implementation of ASBP-3 regional projects.
 - Solution of the Aral Sea problems - given the enormity of the Aral Sea disaster and the problems to be solved, it is necessary to consolidate the efforts of the international community to eliminate the negative consequences of the Aral Sea desiccation and reduce its damaging effects on the environment and livelihoods of millions of people living in the Aral Sea region
 - Enhancing international cooperation – to develop mechanisms for effective interaction and cooperation of the Executive Committee of IFAS, the executive bodies of the Interstate Commission for Water Coordination and the Interstate Commission on Sustainable Development with international organizations and financial institutions, as well as the donor community in order to attract their attention and efforts to address the problems Aral Sea Basin

4.8. Trans-boundary River in Northeast Asia

- Dr Deukkoo Koh shared that nations in Northeast Asia are sharing not only social and economic aspects, but also their landscape and rivers, due to the geographical proximity of the region, which requires close cooperation concerning management, preservation and a platform to discuss those issues surrounding the trans-boundary rivers.
- It is critical to identify the current situation of trans-boundary ecosystem management, to develop more balanced management plan and to explore the opportunity to develop joint projects among those countries.
- The key messages from the session are that for effective management of trans-boundary ecosystem:
 - Legal and institutional frameworks must be established.
 - Information and modelling tools should be shared among stakeholders for the development of joint projects.
 - Best practices should be collected and applied through international cooperation.

4.9. Japan-Korea-China Trilateral Cooperation

- Ms. Yakita Yoko summarized the key discussion points of the Korea-Japan-China Trilateral Forum on Water Resources
- Discussion Summary 1: Future Smarter and Integrated Water Management Policy (SIWM) for Sustainable Korean Water Reform, and Trilateral Cooperation
 - Past and Current: Success history of Korea Water Management
 - Water crises in Korea due to climate change and urbanization have been overcome over time, through the development of water management policies.
 - Future: SIWM
 - For future smarter IWRM concept and direction, the following tasks should be considered:
 - 1) Smarter water management
 - 2) Sustainable water management
 - 3) Water security
 - 4) Water-Energy-Food nexus
 - 5) Well-being with water
 - 6) Multi-level water governance
 - 7) Green growth with water
 - 8) Preparing Korea unification.
- Discussion Summary 2: Optimization of Water Cycle Policy in Japan in Response to Global Climate Change with Focus on Risk Reduction of Water-related Disasters, and Future Trilateral Cooperation
 - Japan's Basic Act on Water Cycle Policy
 - Headquarters for Water Cycle Policy was established to promote the second water cycle.
 - Future Trilateral Cooperation

- Active participation in regional activities for sustainability and increasing country-level NARBO activities for better networking between the three countries.
- Discussion Summary 3: Approaches and Methods to Realize Integrated Water Resources Management in the Yellow River Basin (YRB)
 - Approaches to Realizing the IWRM in the YRB
 - China has had various issues such as water scarcity, uneven water distribution, serious water pollution, water ecology deterioration, and especially water conflicts followed by regional economic and social development
 - Water allocation of the YRB is implemented combining river basin level and local with different levels of authorities, and through negotiation with relevant stakeholders to formulate plans and schemes.
 - Methods towards the IWRM in the YRB
 - Water policy reform (implementation scheme of the strictest water management system) is to set 3 red lines and to implement 4 systems.
 - Red lines on
 - 1) Water development and utilization
 - 2) Water use efficiency
 - 3) Limit of pollutant discharge in the water function zone
 - Systems are:
 - 1) Limit on total water use system
 - 2) Water use efficiency control
 - 3) Limit on total pollutant discharge in water function zone system
 - 4) Water management responsibilities and evaluation system
- The suggestions for future Trilateral Cooperation for Water Policy Innovation include:
 - Establishing a regular trilateral mechanism to share national know-how
 - Conducting comparative research of river basins (development, plan, management, implementation and impact)
 - Gathering water-related working groups from the three countries and planning practical projects (NARBO is a good tool.)
 - Establishing a research group on water resources management/ conducting common research on water history in Northeast Asia

4.10. Hydrological Services

- Dr. Sung Kim highlighted the key issues faced in Asia.
 - Asia has seen the full range of deadly floods, storms, landslides, earthquakes, droughts and extreme weather

- Asia has experienced human-induced changes including population growth, increased urbanization, land use changes, increased water use demands, increased climate variability, and climate change
- National Hydrological Services in the region are becoming increasingly important and need to improve capabilities in data observations, their management and sharing; flood forecasting and warnings; water resource assessment; sediment (land slide and debris flow) disaster management; drought, flood and water resources management.
- Key solutions presented include:
 - Hydrological practices under climate change
 - Climate prediction model and products can be used in extended stream flow prediction, which can help improve water resources management and planning.
 - Climate change projection results can be used in the assessment of potential impacts of climate extremes, which can benefit water-related disaster management.
 - Flood forecasting and warning (FFW)
 - FFW is an important activity of National Hydrological Services, which help inform disaster managers and the public so they may take appropriate measures for disaster preparedness and mitigation
 - The use of advanced numerical weather prediction outputs in flood forecasts can improve the accuracy and lead time of FFW.
 - Advances have been made in the use of ensemble meteorological prediction, and probabilistic hydrological forecasts.
 - Capacity building through implementation of the Flash Flood Guidance System (FFGS) project with global coverage, the Associated Programme on Flood Management, the Integrated Drought Management Programme, and promoting impact-based forecasts
 - Water resource assessment
 - National Hydrological Services need to carry out water resources assessments to meet the challenges posed by increased demand.
 - WRA helps water managers know the availability of water resources and supports integrated water resources management.
 - Tools and models are being developed to undertake dynamic assessment of the availability of basin-wide water

resources, and such tools can be used for planning purposes..

- Sediment disaster and mass movement
 - Issue landslide/debris flow warnings based on improved monitoring and hazard assessment technologies.
 - Improvement in capacity for undertaking sediment disaster management through seminars, training, knowledge and technology sharing.
 - Improved dissemination of sediment-related disaster information and products, e.g. making available hazard and risk exposure maps, promoting the provision of safety services .
- Other aspects:
 - Improving hydrological observations
 - Strengthening cooperation and coordination among national hydrological service through capacity building

4.11. The Caribbean and the Pacific

- Dr. Jose Luis Martin Bordes shared the common challenges for water and sanitation utilities in the Caribbean and the Pacific regions including:
 - Physical Operational Challenges (e.g. continuity of water supply, aging infrastructures, complains from customer etc.)
 - Capacity Needs (e.g. institutional and organizational issues such as financing, planning, operation, watershed and land management etc.)
 - Natural Disasters affecting the islands as a result of climate change
- Main Outcome and Way Forward of the Inter-regional Session Caribbean/Pacific
 - Signature of a Memorandum of Understanding among:
 - The Pacific Water and Wastes Association (PWWA)
 - The Caribbean Water and Sewerage Association (CAWASA)
 - The Caribbean Water and Wastewater Association (CWWA)
 - The United Nations Human Settlements Programme through the Global Water Operators' Partnerships Alliance (GWOPA)
 - To facilitate Inter-regional cooperation to strengthen operators' capacity in Caribbean and Pacific countries to bolster the ability of water and sanitation service providers to play their full role in delivering and extending quality services for all

4.12. Summary of Asia-Pacific regional outcomes

- Mr. Ravi Narayanan thanked all speakers for presenting and distilling the key messages from each thematic session.
- He observed that an overwhelming majority of these messages see a large role for governments, who are responsible for setting regulations, incentives, and targets. To achieve this, however, governments need to use tools (e.g. IWRM) and engage a range of stakeholders with the benefits of good up-to-date information; but these need to be managed against a background of transition in Asia-Pacific and trade-offs between economic, social and political objectives.
- To translate these insights into action, it is helpful to identify the “What, Who and How”. “What” refers to delivery of messages that we just heard; “Who” refers to apex organisations, where they have special responsibilities through their multi-location setups, wide range of partners, and crucial roles in establishing lateral and linear (wide across region and deep inside countries) relationships; “How” refers to their roles of creators and innovators of catalysts and convenors. They need to continue to build up credible case studies as bases for recommendations that are made, for no case can be made without examples. Finally, messages have to be crafted smartly. A case needs to be made on economic, social and political grounds such that it will appeal more to decision makers both bureaucratic and democratic. Hence, if it means by monetizing benefits or monetizing losses or some other indicators (not necessarily money), there has to be a tracking indicators.
- There is an overall recognition of a new player on the scene – the youth and civil society. They need to be recognized above and beyond customary friends so that they can contribute significantly more to this process.
- Each step of this process needs to be measured. Recommendations need to be carried on to the next international event rather than starting from the beginning each time, and this requires institutional memory, good documentation and effective communication.

5. Regional Commitments (High-level Dialogue)

5.1. Are Asia-Pacific countries ready for the challenges ahead?

- Mr. Gil-Hong Kim opined that water is one of the most important factors for sustainable development; as such, water resource management is very critical. According to studies, there is a 40% gap between water demand and water availability in Asia. This will create tough decision on choices and trade-offs will have to be further scrutinized. In addition, there is a rapid pace of urbanization in Asia-Pacific, and it is projected that by 2050, more than 70% of people will live in cities. The increased demand for water in city life, coupled with climate change, makes it harder to manage the water resource. According to the Asian Water Development

Outlook's Water Security Index, most countries are not ready to manage this shift. Urgent actions are required; governments and key players need to have a shift in their mind-sets and policies. Effective governance and a scaling up of necessary investments are required.

- Mr. Mark Pascoe sees the fundamental need for stepped changes to overcome this transition period Asia-Pacific is in: Champions are needed at all levels; leadership needs to be encouraged and we must not be afraid to empower young leaders.
- Dr. Uschi Eid feels that Asia-Pacific is well-prepared for the transition as linkages are already present in the water-energy-food nexus.

5.2. Water issues need to be shared with non-water decision makers

- Mr. Gil-Hong Kim shared the need to involve other decision makers, such as the finance and planning ministries which allocate resources, in tackling water issues. This is because although water is a big issue, it is not necessarily the top priority against other national objectives. Water professionals currently do a good job of understanding water issues, but more needs to be done in sharing these outside of the water sector.
- Mr. Mark Pascoe proposed the concept of "T-shaped water professionals", where they have deep understanding of technical issues yet have the ability to work and communicate effectively with other sectors. The water sector requires more "T-shapes".
- Mr. Gil-Hong Kim highlighted that there is a need to fill up the gap between finance and project developers in order to achieve economically viable projects for investors.
- Mr. Gil-Hong Kim also outlined the need to scale up investments in the institutional capacities of water-related institutions.

5.3. Focus on IWRM

- Dr. Keizrul mentioned that indicators monitoring soft measures in the context of IWRM had been developed. He had also made a commitment at the World Water Forum to build up the capacity of NARBO members to enable them to understand these indicators and that members would sign up and commit themselves to improve on the management of the river basin. At the same time, a benchmarking programme which would help the members in moving up the IWRM indicators had also been developed.
- Dr. Keizrul observed a disconnect between ministerial-level decisions and the situation on the ground. For NARBO members, the water projects they inherit tend to be high-profile infrastructure developments, as these give governments visibility. However, when RBOs take over the operations, funding and support are not always available, leading to ineffective execution of water resource management.

- Ms. Jayamala Subramaniam noted that integration works well on the local scale but is more difficult on a broader scale. The nature of integration is such that it makes things complex, hence there is a need to deconstruct so as to improve scalability.

5.4. Further prioritization of sanitation issues in the United Nations

- Dr. Uschi Eid shared that sanitation has traditionally received little attention until 2004, when the UNSGAB was established. In 2008, the UN General Assembly declared that year the International Year of Sanitation to raise awareness and to accelerate progress towards the Millennium Development Goal (MDG) target to reduce by half the proportion of the 2.6 billion people without access to basic sanitation by 2015. However, within the MDGs sanitation is only defined as having access to a toilet, but does not define what happens beyond in the toilet. The UN needs to take up the latter issue and carry this on for the Sustainable Development Goals.
- Dr. Uschi Eid deeply believes that water and sanitation is a gender issue. Men, unlike women, do not require a cubicle for sanitation uses. As a result, upon reaching menstruation age, 10% of women drop out of school due to the lack of toilet cubicles.

5.5. Political will

- Sultan Rahimzoda shared on the importance of political will and finance in managing water security. In Tajikistan, although there are plenty of water resources, it faces other challenges such as floods and energy reliability during winter. A safe and reliable drinking water supply remains high on the agenda; issues in infrastructure investments and water tariffs (as low as \$0.01/m³ for irrigation) need to be managed to achieve an economically sustainable model.
- Dr. Keizrul reiterated the need to address the disconnect between global and national levels and the realities on the ground, where developments are moving along slowly. He suggested that the way MDG targets are set could cause this disconnect, where political leadership appears to place more emphasis on project development but less on execution and sustainability.

5.6. Private sector opportunities in water security

- Mr. Shigeo Mizutani shared that although Japan is blessed with water, it is vulnerable to natural disasters as well as having a high rate of typhoons, earthquakes, volcanic activities and tsunamis. These experiences could be shared with other countries. For example, heavy rain inundated the area in Hiroshima in 2004, and through that experience, the government has since established early-warning systems together with Japanese

weather forecast companies. The private sector can contribute to water security with technical resources in expertise and forecasting.

5.7. Youth and civil society

- Mr. Ponce Ernest Samaniego expressed appreciation for APWF in having a youth representative on the panel. He feels that youths, given the opportunity, are able to contribute meaningfully towards the water cause. The International Youth Steering Committee by the ADB Youth Initiative has seen active global participation from youths and has proven to be a source of innovative ideas in water-related issues such as sanitation.
- Mr. Ponce Ernest Samaniego pointed out that sanitation is not just a woman or gender issue, it is also a youth issue. Annually, 1.8 million children under the age of 5 died from poor sanitation, and 90% are from water related diseases. With 60% of the global youth population in Asia, he aims to create a youth movement to solve these sanitation issues.

5.8. Stakeholder engagement

- Ms. Jayamala Subramaniam noted that for any issue, the type of stakeholders is dynamic and hence it is important to have an open platform to identify the stakeholders who can create value. Ultimately, it is about finding a way to create complementary value to all stakeholders so as to work together.

5.9. Connecting different dots in water (water-energy-food nexus)

- Mr. Gil-Hong Kim shared on the need to think outside of the box. In the Asia-Pacific region, more than 80% of water is used for agriculture and food wastage in some countries can be as high as 40%. Therefore, to manage water security, food security and waste issues need to be addressed. Productivity in the agriculture sector has to increase so as to achieve a win-win situation. Furthermore, more research could be done on exploring waste water/water reuse related to food production. He further shared that ADB recently invested in a private sector project for a wastewater treatment plant in China, where treated wastewater will be used for cooling. He further suggested a regional food trade market in terms of food to address food security concerns across different countries.
- Mr. Gil-Hong Kim expressed hope in the various water sectors. There is a lot of innovation upcoming in wastewater management, and it is increasingly becoming a revenue-generating endeavour for sustainable investments. This can also be observed in the energy sector such as solar and wind energy, where these are now cost-effective in a short period. Likewise in sanitation, if investments can be scaled up, the price-cost ratio can be reduced for more rapid, sustainable development.

5.10. More platforms for information sharing

- Mr. Mark Pascoe recommended a greater role for the cross-sector bridging/apex organisations. Leaders should be more flexible and rely more strongly on these organisations.
- Dr. Uschi Eid emphasized the necessity of having indicators to measure the process of reaching the target. A good monitoring system and a good platform in reviewing the process are also essential. She also suggested that international discussions should be linked with regional discussions and to ensure that governments implement what they have agreed to.

6. Closing Remarks

- 6.1. Mr. Ravi Narayanan acknowledged the panellists for a great job done in explaining the complexities in the Asia-Pacific region and across the different themes. Asia-Pacific is a region of staggering diversities, varying sizes and different stages of development. There is also a large velocity of change, so while it may be easy to give up, it is worth noting that there are some common principles that everyone can embrace.
- 6.2. Policy development is important for investments in infrastructure, capacity building and technology. These require inclusive institutions (not necessarily large ones) that are open to participation and working together to exchange ideas.
- 6.3. Currently, there may be gaps between the overall national intent and what is observed in the local action. Eventually they will meet, and there will be a virtuous spiral.
- 6.4. In crafting solutions, actors must not fear complexities and should resist the urge to talk about singularity. Embracing diversity is important, as are transparency and trust. Ultimately, policies need to have a long-term view for sustainable solutions.

End of Summary Report

- Recorded by Mr. Chor Ming Chong and Ms. Poh Hoon Ang, PUB Singapore, co-rapporteur of the regional synthesis session
- Edited by APWF Secretariat
- Approved by APWF Governing Council

Annex A:**Background & Objectives:**

Water is a fundamental resource and as such its sustainable management is at the heart of human security and the social and economic development of nations. Over the past few decades, several areas of the Asia-Pacific region have experienced notable progress in various aspects of water management, including access to water resources and coverage of related services. Due to rapid population growth, economic growth and urbanization, however, there are still significant shortfalls in meeting the region's needs.

Considering the region's formidable size and diversity, the Asia-Pacific's water challenges are of massive proportions. Under the Asia-Pacific regional process of the 7th World Water Forum, there will be 11 thematic sessions covering a wide variety of topics such as water and cities, water and food, and water and disasters, all of which are in need of the strongest response to provide suitable solutions as soon as possible.

The outputs of each of the regional sessions will be reported at the Asia-Pacific Synthesis and Commitment session. During the high level dialogue, various government, academic, civil and private sector experts will discuss the issues and consider clear, practical and specific solutions with the goal of creating a mutually agreeable list of topics of common importance to the Asia Pacific region. This list should form the message of recommendations for the 3rd Asia-Pacific Water Summit which will be held in the mid-2017.

The outcomes of the session will be channelled into the process that leads up to the 3rd Asia-Pacific Water Summit to be expected to be held in 2017 and the 8th World Water Forum in 2018 in Brazil. The outcomes will also be reflected in the next edition of the Asian Water Development Outlook to be published in 2016.

Annex B:**Organizers:**

The Asia-Pacific Water Forum (APWF), in cooperation with the:

- Korea Water Forum (KWF),
- Asian Development Bank (ADB),
- United Nations Economic and Social Commission for Asia and the Pacific (ESCAP),
- Food and Agriculture Organization of the United Nations (FAO),
- United Nations Educational, Cultural and Scientific Organization (UNESCO),
- International Center for Integrated Mountain Development (ICIMOD),
- Network of Asian River Basin Organization (NARBO),
- Korea Water Resources Cooperation (K-water),
- Global Water Partnership Organization (GWPO) and GWP Regional Partnerships (GWP CACENA, GWP SAS, GWP SEA),
- Asia-Pacific Center for Water Security (APCWS).

Annex C:**Program:**

Chair: Mr. Ravi Narayanan, Chair, APWF Governing Council

Program	Speaker(s)
Opening remarks	Mr. Yoshiro Mori, President, APWF, to be represented by Dr. Kotaro Takemura, Secretary General, Japan Water Forum as Secretariat of APWF
Regional Water Security Status	
Introduction	Mr. Gil-Hong Kim, Senior Director, Sector Advisory Service Division, Regional and Sustainable Development Department, ADB
Asian Water Development Outlook	Ms. Yasmin Siddiqi, Principal Water Resources Specialist, Sector Advisory Service Division, Regional and Sustainable Development Department, ADB
Regional Synthesis	
Water and Cities	Dr. Shahbaz Khan, Deputy Director, UNESCO Regional Science Bureau for Asia and the Pacific
Water and Green Growth	Dr. Salmah Zakaria, Economic Affairs Officer, ESCAP
Water and Food Security	Mr. Thierry Facon, Senior Water Management Officer, FAO Regional Office for Asia and the Pacific
Water-related Disasters and Climate Change	Dr. Ramesh Ananda Vaidya, Senior Advisor, ICIMOD
Integrated Water Resources Management	Mr. Koichiro Omoto, NARBO Secretariat
Rural Water and Sanitation	Ms. Hilda Winartasaputra, Regional WASH Specialist, Plan International Asia Regional Office
Development of Cooperation in the Aral Sea Basin	Dr. Vadim Sokolov, Regional Coordinator, GWP CACENA
Trans-boundary River in Northeast Asia	Dr. Deukkoo Koh, Secretary General, KWF
Japan-Korea-China Trilateral Cooperation	Ms. Yuko Akita, Director of Economic Affairs, Trilateral Cooperation Secretariat
Hydrological Services	Dr. Sung Kim, Senior Research Fellow, Hydro Science and Engineering Research Institute, KICT
The Caribbean and the Pacific	Dr. Jose Luis Martin Bordes, Programme Officer, Global Water Operators' Partnerships Alliance, UN-HABITAT
Summary of Asia-Pacific regional outcomes	Mr. Ravi Narayanan, Chair of the APWF Governing Council
Regional Commitments (High-level Dialogue)	
<u>Moderators:</u>	
<ul style="list-style-type: none"> ● Ms. Changhua Wu, Vice Chair, APWF Governing Council ● Prof. Simon SC Tay, Vice Chair, APWF Governing Council 	
<u>Country delegates:</u>	
<ul style="list-style-type: none"> ● Sultan Rahimzoda, 1st Deputy Minister of Energy & Water Resources, Tajikistan 	
<u>Panellists:</u>	
<ul style="list-style-type: none"> ● Dr. Keizrul Bin Abdullah, Chairperson, Network of Asian River Basin Organizations ● Dr. Uschi Eid, Chair of United Nations Secretary-General's Advisory Board on Water and Sanitation (UNSGAB) ● Mr. Gil-Hong Kim, Senior Director, Sector Advisory Service Division, Regional and Sustainable Development Department, ADB ● Mr. Shigeo Mizutani, President and Representative Director, Swing Corporation 	

- Mr. Mark Pascoe, Chief Executive Officer, International Water Centre
- Mr. Ponce Ernest Samaniego, ADB Youth Coordinator / International Youth Steering Committee
- Ms. Jayamala Subramaniam, Chief Executive Officer, Arghyam Foundation

Audience interactions

Closing Remarks	Mr. Ravi Narayanan, Chair of the APWF Governing Council
------------------------	---