



## 8TH WORLD WATER FORUM

### Roundtables reports

*These Reports have been prepared by the Moderators of the Roundtables under their own responsibility, on the basis of the views expressed, during the session, by Ministers, Heads of Delegations and other high level authorities. The views expressed in these Report shall not be interpreted as the consensus of participants in the Roundtable, nor be taken as the representation of the agreed views of participants of the Ministerial Conference.*

### 1- “Climate”

The "Climate Roundtable" of the Ministerial Conference of the 8th World Water Forum took place in Brasília, Brazil, on the 19th of March, 2018. The Roundtable was moderated by the Brazilian Minister of Environment José Sarney Filho. It had, as lead discussants, Mr. Carlos Esteves, Director-General of Water Resources of Chile, and Mr. Je-chul Yoo, Deputy Minister of the Environment of the Republic of Korea. The thematic introduction was presented by Mr. Daene C. McKinney, on behalf of the Thematic Process of the 8th World Water Forum.

#### **Main issues discussed**

- The adverse impacts of climate change are most evident in issues related to water. Climate change, the greatest challenge of our century, affects negatively the availability, quantity and quality of water resources, with impacts on the human right to access to water.
- Climate change adversely impacts water in the following manners: changes in the hydrological cycle, in rainfall patterns, in glaciers and in the rise in probability and intensity of extreme hydrological events such as droughts and floods, with serious impacts on other areas, such as health.

- Other impacts not directly related to the hydrological cycle, such as sea-level rise, have severe negative impacts on water quality in coastal regions, which concentrate world population.
- All are vulnerable to the pressures of climate change on water resources but developing countries, which contributed the least to the problem, are disproportionately impacted.

### **Key political messages**

- With the rise in water scarcity due to the reduction in water availability, water security is the central concern of measures to adapt to the adverse impacts of climate change.
- There is strong commitment to the implementation of the Paris Agreement, including their Nationally Determined Contributions, and the 2030 Agenda for Sustainable Development and its Sustainable Development Goals, as the frameworks for responses to challenges related to water and climate change.
- There was consensus that after management should be incorporated as a central component of adaptation measures in order to improve resilience.
- The importance of integrating adaptation measures to basin, flood and drought management plans was also highlighted.
- Vulnerability analysis at the local level and vulnerability indexes, with downscaling of global models, are other important tools.
- Policies and measures should be based on science and built in an inclusive and participatory manner.
- Initiatives should also bring together different levels of government, stakeholders and those impacted. Different international alliances and initiatives for solutions to water and climate were highlighted, as was the importance of promoting a culture of adaptation among public managers.
- The dialogue between science and decision-making processes should be improved. In this context, investments in scientific research related to water resources and climate change are still much lower than required.
- The water-energy-food nexus should be taken into consideration in planning adaptation measures and considering potential mitigation co-benefits. Desalination is an important element for many countries to respond to water scarcity, while also having potential co-benefits for reducing emissions.

## **Areas where further work is needed**

- Water issues should be considered systematically in the UNFCCC process, taking into account that water is not a sector, but a component/connector.
- Issues related to financing are essential since the current level of resources is insufficient to support adaptation activities related to water resources, with mitigation co-benefits. New innovative financing solutions that respond to the needs of developing countries should be found and further discussed. In this sense, UNFCCC COP decision 1/CP.21, that approved the Paris Agreement, offers a potential route to support developing appropriate financing instruments, by recognizing the social, economic and environmental value of voluntary mitigation actions and their co-benefits for adaptation, health and sustainable development (par. 108).

## **2- “People”**

The "People Roundtable" of the Ministerial Conference of the 8<sup>th</sup> World Water Forum took place in Brasília, Brazil, on the 19<sup>th</sup> of March, 2018. The Roundtable was moderated by Vice Minister of Environment of Brazil, Ms. Juliana Simões, and had, as lead discussants, Msgr. Bruno-Marie Duffé, of the Holy See, and Mr. Faisal Sultan F. Alsubaie, from Saudi Arabia.

### **Main issues discussed**

- Access to safe water and sanitation to everybody in the context of the new challenges posed by the Agenda 2030;
- Water and sanitation policy design and implementation, taking into account technical, financial, environmental, cultural and religious elements;
- Inclusive community and civil society participation in the elaboration of public policies;
- Global coordination of governments and international organizations in the provision of safe water and sanitation;
- Education on the importance of water, taking into account both technical formal education and traditional knowledge and oral traditions;
- Safe water and sanitation provision in the context of the ongoing refugee crisis;

- Examples and analysis of public policies and the evolution of statistics in the last few years on water and sanitation in Brazil, Angola, Latvia, Thailand and Turkey;

### **Key political messages**

- The provision of safe water and sanitation requires the mobilization of important resources, which can only be achieved through decisive political support. The targets set up at the UN in 2010 are far from being met and face increasing risks: deforestation, pollution, climate change, armed conflicts etc;
- Public authorities must design policies that define priorities and then take actions, bearing in mind institutional arrangements, finance, governance and education;
- Access to water lies at the center of the creation of human settlements. It ultimately belongs to the community and should be managed as such. If peace and solidarity are to thrive water should be made available in a safe and responsible manner to everyone;
- Water is not only a means of material living, but it also encompasses spiritual and religious dimensions, defining the very identity of a community. This implies that it cannot be treated as a conventional commodity;
- People need to be informed in order to make the best decisions as far as the use of water and the provision of sanitation is concerned. Public policies must educate people on the importance of water, especially in a context of growing scarcity and environmental stress;
- As the provision of safe water normally has implications beyond national borders, international coordination and cooperation should be reinforced.
- International funds should be made available to face new challenges, such as the refugee crisis, environment disasters, climate change and growing urbanization.

### **Areas where further work is needed**

- Although needed, there is still no consensus on how international coordination on the use and provision of safe water to all should be done. No international mechanism with that purpose is currently known;
- Access to water and ownership deserves serious democratic discussions both at the national and international levels. There is no universal model available.
- The model of legislation that should be put in place in order to guarantee wider coverage and water safety to all. It is not yet known either.

### 3- “Development”

The "Development Roundtable" of the Ministerial Conference of the 8<sup>th</sup> World Water Forum took place in Brasília, Brazil, on the 19<sup>th</sup> of March, 2018. The Roundtable was moderated by Ney Maranhão, Director of the National Water Agency, and had, as lead discussant, Sulton Rahimzoda, Vice-Minister for Energy and Water Resources of Tajikistan. The thematic introduction was presented by Marlos de Souza, on behalf of the Thematic Process Commission of the 8<sup>th</sup> World Water Forum.

#### **Main issues discussed:**

- Discussions were divided into two rounds;
- In the first round of debate, participants were asked to comment on and answer to the following questions offered to consideration by the Thematic Commission: a) ‘how water availability is affecting the development of your country?’, and b) ‘what are the current impediments to sustainable water management in your country?’;
- In the second round, participants were invited to share their opinions about the following questions: c) ‘how could water be used more efficiently and sustainably?’; d) ‘if you could change the water governance arrangements in your country, what would you do?’; and e) ‘what shall be done to accelerate the implementation of *the Nexus approach* all-inclusive to achieve sustainable development through water management?’;
- These questions were addressed by the representatives after the Lead Discussant set the scene, according to the perspective of his country, Tajikistan;

#### **Key political messages**

- It was agreed that water wasting is the biggest disease we have to face, since water plays a critical role for sustainable development. From food and energy security to human and environmental health, water contributes to improvements in social well-being and inclusive growth, affecting the livelihoods of billions;
- Typically, water crises are linked to some other factors rather than solely by nature or infrastructure issues. Water governance is on the core of the human-induced water crises. Probably most of the non-nature driven water crises could have been avoided if good water governance was in place. In this sense, we have to learn how to better manage water availability, considering not only obtaining more water where it is scarce, but also controlling the demands and

the inefficient use of the water as well as physical losses. Water allocation to all users then becomes a critical matter;

- The role of the private sector in the cost recovery process and especially in the awareness raising of water users and consumers was also mentioned. Water is a finite resource and cannot therefore be taken for granted. Budgets directed to build infrastructure shall also include the costs of maintaining that infrastructure throughout the years along its life;
- Lack of data represents a problem to put in place policies. Data collection and data sharing are critical for the proper use of national budgets, assessments and decisions regarding water management;
- Some countries have reliable water management as an important component of national security (Tajikistan); others, as a source of energy security and even a catalyst for political stability (Sudan); small insular countries that share an island may face unbalanced tackling of hydric stress, which can induce migrations (Dominican Republic and Haiti); countries might have no problems with availability, but find it difficult to process the amount of water they possess (Brunei);
- Israel brought the issue of the drying up of the Jordan River and the decline of the Dead Sea levels. USA commented on the need to build cheaper and more effective infrastructure and the permanent struggle for funding;
- The rising needs of developing nations were also put in evidence, especially in dealing with the impacts of climate change and the urgent need to provide more food, energy, goods and livable cities for growing populations, thus evidencing the Nexus Water-Energy-Food (India and Brazil). Some countries may be very much vulnerable to these changes, impacting food and energy production;
- Sharing water between different sectors has also become a challenging task for decision-makers and governments. In Australia, imbalance between renewable water availability and the level of consumption is at the core of the country's concerns;
- Myanmar faces uneven distribution of precipitation and they has to build infrastructure to reserve water for dry areas. 95% of ground water usage occurs in cities. There is a special need in this country to integrate water management;
- More than 95% of electricity in Tajikistan stem from hydropower. Since more than 70% of the total population live in rural areas, water is important not only for irrigation, but as a source of employment;

### **Summary:**

- After listening to the speakers, it was possible to present a summary of what was discussed and its main conclusions:
- A good governance system is of paramount importance to support the economic development effort of a country. And this governance system is made of laws, technology (infrastructure), institutions, human resources, management tools and protocols;
- Integration is also fundamental, both vertical (levels) and horizontal (sectors). Integration is to be improved among user sectors and the stakeholders;
- Development depends on a series of factors, not only on one cause. Among those factors, one can highlight education, infrastructure, technology, funding strategies, physiographic conditions (soil, climate, among others). If one of them is missing, development is affected somehow;
- To support this thesis, the moderator presented some examples of the intimate connection between water and development, especially connected with the pioneer agricultural front in the Center of Brazil.
- During the debate, there was no disagreement or controverted points. Quite on the contrary: every single contribution received unanimous approval of the presents and the moderator and the rapporteur had no difficulty to organize what was said and heard during the meeting, as a consequence of the existing complementarities. We therefore acknowledge the quality of the contributions received and the interest manifested by all participants. These statements should also be extended to the Thematic Commission members who assisted the session, briefing and responding to every question.

## **4- “Urban”**

The "Urban Roundtable" of the Ministerial Conference of the 8<sup>th</sup> World Water Forum took place in Brasília, Brazil, on the 19<sup>th</sup> of March, 2018. The Roundtable was moderated by the Vice Minister of Environment, Mr. Edson Duarte from the Brazilian Ministry of the Environment and had as lead discussants “H.E. Eneida de Léon – Minister of Housing, Territorial Planning and Environment of Uruguay” and "Mr. Nuno Lacasta – President of the Portuguese Agency of the Environment". The thematic introduction was presented by " Mr. François Brikké from the Global Water Partnership", on behalf of the Thematic Process of the 8th World Water Forum.

### **Main issues discussed:**

- The world has been undergoing an Intense process of urbanization. By 2025, there will be 27 Megacities in the world, of which 21 will be located in the Southern Hemisphere. Steep Population growth and the spreading of informal human settlements pose additional challenges to the management of water resources.
- Climate change is a particular challenge to water management and consumption.
- Water scarcity/hydro deficit affects populations around the globe. Cities in Brazil, South Africa and United States, among other places, have been deeply affected by droughts and irregularity in the precipitation regimes.
- Circular Economy, which keeps resources in use as much as possible and regenerate materials and products at end of each service life, is a trend for the future of the cities and of the planet.
- The capabilities of water management and use of cities is deeply linked to the basins that supply them and should be approached in an integrated manner.
- Governance, public participation and interface with other agencies is needed. A holistic approach to the challenges posed by water supply deficit should be pursued. Water consumption and management should be linked to city planning and urban architecture.
- Financial resources are necessary to finance the deficits in water supply and sanitation needs particularly in the most vulnerable regions and communities.
- It is necessary to invest in knowledge, research and exchange programs for risk management, mitigation and adaptation.

**Key political messages:**

- Empowerment of cities and municipalities is essential to tackle local problems, including those related to water use and management.
- As cities gain more policy related responsibilities, adequate financial resources should be granted to them by national governments to implement water management policies and plans.
- Integrated national policies on water management, land use, waste management and access to infrastructure need to be developed, as well as investment in new technologies, efficiency, reuse and elimination of waste.
- Priority should be given to the needs and necessities of the poor, which are more vulnerable, envisaging universal access to water and sanitation.

- Governments at all levels should make all necessary efforts to implement SDG 6 and its respective targets, as well as the other SDGs that are interconnected to it.
- Programs of environmental education need to be developed to raise citizens' awareness of environmental challenges, in particular those related to water use and management.
- Governments should get citizens involved and engaged in discussions and deliberations related to water management and use.

**Areas where further work is needed:**

- Strengthen the participation of citizens by means of local committees and similar fora.
- Public and private partnerships should be developed in order to address water management and use challenges and to streamline resources to tackle them.
- Partnerships among states and municipalities, both at national and international level, should be strengthened in order to enable information sharing and to disseminate best practices and related technologies.
- Decentralization of financial resources, including via reforms of tax regimes, from state level to city level should be pursued.

## **5- “Ecosystems”**

The "Ecosystems Roundtable" of the Ministerial Conference of the 8<sup>th</sup> World Water Forum took place in Brasília, Brazil, on the 19<sup>th</sup> of March, 2018. The Roundtable was moderated by HE the Minister Hassan Janabi (Water Resources, Iraq) and had, as lead discussants, HE the Deputy Chair of the state committee Mr Uktam Utaev (Ecosystems and natural protection, Uzbekistan) and HE Vice-Minister Zhou Xuwen (Water Resources, China). The thematic introduction was presented by Prof. Stuart Bunn, on behalf of the Thematic Process of the 8th World Water Forum.

**Main issues discussed:**

- Protecting freshwater ecosystems and their services in a context of changing climate, increasing of extreme events, ecosystems vulnerability, rising sea level, biodiversity reduction, population growth and expanding urbanization.
- Recognizing environment as legitimate water users and ensure basic ecological flow.

- Balancing human needs and nature conservation to maintain harmonious relationships with nature.
- Development of nature-based solutions; combination of green and grey infrastructures
- Legal instruments and framework to preserve, protect and restore ecosystems.
- National action plans and funding programs, local government, stakeholders and public involvement.
- Special attention to regional and transboundary context to address challenges of shared waters.
- Integrated and adaptive water management strategies to find balance in addressing social, economic and environmental needs, protecting human health and livelihoods, food and energy security and biodiversity.
- Water governance using multiple levels approaches to enhance links between water management and ecosystem protection.
- Cooperation and participation of policy makers, experts, stakeholders and users at all levels to benefit from best practices.
- Preventive and remedial measures to control pollution discharge, ensure public ecological control.
- Valuing of ecosystems services.
- Financial support for developing countries and potential involvement of private sector.
- Comprehensive monitoring systems of water quality and setting up early warning systems.
- Improvement of system-wide resilience of freshwater ecosystems and promoting of rivers and water bodies connectivity.
- Public awareness as essential factor for behavioural change and fundamental changes in water using models.
- Fostering bottom-up approach in order to benefit from traditional and pragmatics ground knowledge and practices.
- Recognizing Ramsar Convention as an international tool for the protection of wetlands ecosystem.

**Key political messages:**

- Ecosystems are central to the discussion on water and related SDGs goals.
- Security of water allocation for the environment and ecosystems as priority.
- Importance of the ecological integrity and rivers and water bodies connectivity.
- Importance of pollution control plans at the sources and protective ecosystem public policies.
- Protecting natural territories and conserving biodiversity.
- Balancing human as well as environmental needs.
- Attention to regional and transboundary challenges in terms of environment and biodiversity.
- Identification and protection of eco-region to mitigate climate change impact.
- Water resources planning benefits from integrated solutions and best practices to improve ecosystem services.
- Importance of improved water governance and changes in water consumption models.
- Need for initiatives toward national protected areas and improved land use policies.
- Importance of counteracting biodiversity loss and restoring water-related ecosystems.
- Utilization of system for prior-authorization of water users.
- Comprehensive monitoring since “what you do not measure cannot be managed”
- Cooperation between governmental and non-governmental actors
- Greening of cities, proper financing and treatment of wastewater.
- Integrated water management and transboundary cooperation is key to minimize impacts on shared water resources.
- Need for integration of policies across sectors to address problems related to water and ecosystems.
- Good water governance and cooperation between all stakeholders is key to success and must be improved.
- Nature must be part of the solution to water management and water security.
- Improvement of public awareness and participation.

### **Areas where further work is needed:**

- Special attention to nature-based solutions.
- Improved governance as key to ecosystems conservation and water management.
- Proper financial support so developing countries can work on achieving SDGs by 2030.
- Local and traditional water management techniques must be taken into account in academic research and governmental policies.

## **6- Finance**

The "Finance Roundtable" of the Ministerial Conference of the 8<sup>th</sup> World Water Forum took place in Brasília, Brazil, on the 19<sup>th</sup> of March, 2018. The Roundtable was moderated by Oswald Chanda, African Development Bank, and had, as lead discussants, "Ramón Jimenez, Minister of Public Infrastructure, Paraguay, and Pio Wennubst, Secretary of State for Foreign Affairs, Switzerland. The thematic introduction was presented by Frank Rojas, on behalf of the Thematic Process of the 8th World Water Forum.

### **Main issues discussed:**

- There is a huge gap between current levels of investment in the water sector and the amounts required to fulfill the SDG targets, in particular universal access to basic water and sanitation services. The gap is estimated in US\$ 98 billion a year for developing countries, almost six times the current investment levels.
- With today's low interest rates, there is a window of opportunity for financing available to governments in developing countries willing and able to create an enabling environment for investment.
- Public investment will continue to play the major role in Latin America and most regions of the world, but the financing gap can only be closed with more private sector investments.
- A diverse portfolio of measures is required to create an enabling environment for multiplying public and private investments and make water infrastructure projects more "bankable".

- Both for public and private financing, a key issue is that water services are heavily underpriced around the world, and water bills usually do not reflect the capital costs. This needs to be corrected in order to provide clarity about the return of infrastructure investments and the cost recovery of long term investments.
- Current subsidies mostly benefit the middle and upper classes, which are the largest consumers and live in places well served with infrastructure. The poorest remain underserved because the low tariffs discourage more investment in infrastructure for water and sanitation to reach suburbs and rural areas. While correcting the price of water services (not of water per se), governments should at the same time provide more targeted and efficient forms of subsidies to ensure affordability to the poorest and guarantee the right of access to water for all.
- Successful business, regulatory, and operational models and practices should be studied and replicated, including utility credit ratings, environmental services tariffs, decentralized management, blended financing, long term policy stability, cross-border cooperation, PPPs, and others.
- International cooperation is key as most water basins and resources are shared across national borders. In many cases, these borders are also places of conflict. Peace and cooperation is needed to enable investments. Examples of international cooperation between regions, downstream and upstream countries abound in Africa, South Asia,
- Beyond finance itself, adequate capacity needs to be built and strengthened in the countries in the areas of utility management and creditworthiness, project development and implementation, among others, for accelerated delivery.

**Key political messages:**

- There has been inadequate investment in water management and infrastructure for decades. Reaching SDG6 target will require 5 to 6 times the current levels of investment and will require a holistic approach of source to sea.
- While public investment will remain key, including regular public financing and financing from international development banks and other public national, regional and multilateral institutions, private sector resources will be needed to bridge the gap. Blended finance remains a key option to optimize investments from the limited available resources.
- To attract more investments, countries need to rethink the pricing of water services, by, on one hand, pricing water services realistically and transparently in order to transition towards full cost recovery for long term infrastructure projects, and, on the other, providing more efficient and targeted subsidies and

concessional financing to the poorest in order to ensure universal access and the right to water.

- At least as much as political will from national governments, countries need to establish policies and legislation that promote good governance models and regulatory frameworks, which will be key for attracting investments to the water sector.
- Planning of investments at country level highlighting the gaps and projected required investments will enable water ministers to build a strong case for investments from the ministers of finance.
- Beyond being providers of funds, national, regional and multilateral financing institutions and public-private partnerships can also play an important role in providing risk mitigation instruments, capacity building, and as a convening forum to promote international cooperation and better domestic coordination (i.e. between water and finance ministries).
- International cooperation in cross border water basins is key to ensure stability for attracting investments.
- Heavy investment in technical cooperation and capacity building will be needed to enable higher absorption and implementation of increased levels of investment at country level. Partnership with relevant organizations to best provide the capacity development is key.

**Areas where further work is needed:**

- Examination of specific impact of revamped service tariffs in agriculture, a large consumer of water, to promote efficient use.
- Better examination of the best planning and economic models for long term infrastructure investments.