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Summary of the Fourth

Asia-Pacific Water Summit: 23-24 April 2022

The Water Action Decade 2018-2028 is now at its mid-point and countries around the world are seeking to review progress with respect to efforts made on water and sanitation. This review will take place through the UN 2023 Water Conference—formally known as the 2023 Conference for the Midterm Comprehensive Review of Implementation of the UN Decade for Action on Water and Sanitation (2018-2028). The 2023 Conference is expected to deliver a Global Water Pact and a roadmap for the second half of the Water Decade, as well as support achievement of the water-related Sustainable Development Goals (SDGs).

The Asia-Pacific region, as with many regions, is preparing for this review and has convened numerous meetings and activities to chart a roadmap for the next five years. One of these meetings was the Fourth Asia-Pacific Water Summit (4th APWS), held 15 years after the first Summit in 2007. Attended by Heads of State and Government, ministers, and representatives of international organizations, the 4th APWS provided the opportunity to discuss collaboration and integration of water resource management into socio-economic development processes in the Asia-Pacific region.

The two-day Summit included a Heads of State and Government meeting, nine thematic sessions, and four integrated sessions. Heads of State and Government adopted the [Kumamoto Declaration](#), which discusses challenges amid the COVID-19 pandemic and its recovery. It further summarizes actions for transformation towards a quality-oriented society, and highlights outputs of the 4th APWS. Through the Declaration, leaders of the region commit to, among other measures:

- improving water security and access to water and sanitation;
- promoting climate change mitigation measures while utilizing low-emission energy sources;
- promoting green infrastructure to achieve carbon-neutral societies in harmony with nature;
- working towards achieving access to safe and affordable drinking water and sanitation for all; and
- rectifying inequalities in access to water and sanitation services, and protection from disaster risk.

Leaders also pledged to accelerate efforts to realize a quality-oriented society by strengthening the quality of water sector infrastructure.

The outcomes from the thematic and integrated sessions are summarized in a document, titled [Showcases and Roadmaps](#), a compilation of good practices and case studies spotlighting quality growth and infrastructure development in the Asia-Pacific region.

The outcomes of the meeting will be introduced in relevant upcoming water events, including Stockholm World Water Week and the UN 2023 Water Conference.



His Majesty the Emperor of Japan **Naruhito**

The 4th APWS was attended by 17 Heads of State and Government, including Presidents, Prime Ministers and Deputy Presidents, as well as nineteen government ministers, who attended either in person, virtually, or via video message.

The Summit convened in Kumamoto, Japan, on 23-24 April 2022 under the theme, “Water for Sustainable Development—Best Practices and the Next Generation.” It aimed to accelerate

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the region's achievement of the Sustainable Development Goals (SDGs), as well as provide the opportunity to follow up to the [Yangon Declaration](#), adopted by the 3rd APWS in 2017, which laid out a path forward for upscaling innovation for water security in the Asia-Pacific region.

A Brief History of the Asia-Pacific Water Summits

The Fourth World Water Forum, held in Mexico in March 2006, recognized the challenges of water resource management in the Asia-Pacific region, including the need to ensure better access to water and sanitation, protect and restore river basin freshwater resources, and reduce the vulnerability of human populations to water-related disasters.

Participants in the regional preparatory process, coordinated by the Japan Water Forum, initially proposed the creation of an Asia-Pacific Water Forum (APWF) as a response to these challenges. Many agencies in the region supported the idea, including the Asian Development Bank (ADB), the UN Economic and Social Commission for Asia and the Pacific, the Global Water Partnership (GWP), the Mekong River Commission, the UN Development Programme, and the UN Environment Programme.

In the Fourth World Water Forum's ministerial statement, the region's water ministers called for the establishment of the APWF to encourage greater collaboration among countries and better integration of water resources management into socio-economic development. The APWF was launched on 27 September 2006 at ADB headquarters in Manila, the Philippines, as an independent, not-for-profit, non-partisan network for solving water problems in the Asia-Pacific region.

First Asia-Pacific Water Summit (APWS): The APWF organized its first Summit, on the theme of "Water Security: Leadership and Commitment," in 2007 in Beppu, Japan, involving over 370 participants. Thirty-six countries and regions were represented, including 10 Heads of State or Government, and 31 ministers from the Asia-Pacific region.

The 1st APWS issued a [Message from Beppu](#) that reaffirmed the existing international water and sanitation targets in the Millennium Development Goals (MDGs) and looked to achieve universal water access by 2025. The message called for: improved water governance; action on floods, drought, and other water-related disasters; and support for small island developing states (SIDS) in addressing the impacts of climate change on lives and livelihoods. The Summit also issued a chair's summary and a policy brief outlining certain thematic priorities, namely: water financing and capacity development; water-related disaster management; and water for development and ecosystems, recognizing the importance of integrated water resource management (IWRM) in achieving many water-related aims. It additionally established concrete goals for the 2008 G8 Summit held in Tokyo, Japan, on supporting developing countries to achieve their water and sanitation targets, as well as adapt to the impacts of climate change.

Second Asia-Pacific Water Summit: The 2nd APWS was initially planned for 2011 in Bangkok, Thailand, but was postponed due to severe flooding. Following the floods, support increased for organizing the 2nd APWS on the theme of water security and water-related disaster challenges. The 2nd Summit took place in Chiang Mai, Thailand, from 19-20 May 2013. The [Chiang Mai Declaration](#) included among its recommendations:

- prioritizing water and sanitation and IWRM in national agendas;
- including disaster risk reduction (DRR) and water issues in the development agenda beyond 2015;
- enhancing regional and international cooperation; and
- improving efficiencies in the agricultural sector.

The Chiang Mai Declaration also invited the APWF to mobilize initiatives to support the recommendations and consider establishing an Asian Water Information System.

Third Asia-Pacific Water Summit: The 3rd APWS was held in Yangon, Myanmar, on 11-12 December 2017 under the theme "Water Security for Sustainable Development." The Summit adopted the Yangon Declaration, which laid out a pathway for upscaling innovation for water security in the Asia-Pacific region. The Yangon Declaration contained sections on sound water cycle management, governance and inclusive development, financing implementation of water-related SDGs, and water cooperation. Leaders committed to, among others:

- conserve and restore water-related ecosystems, increase water productivity, and include water resource planning in land-use planning;
- establish sound regulatory mechanisms and planning for safe and sustainable drinking water;
- support the development of innovative and sustainable financial instruments and financial solutions; and
- provide region-specific inputs to the outcomes of the UN High-Level Panel on Water.

4th APWS Report

Opening Ceremony

Yoshiro Mori, President of the APWF and former Prime Minister of Japan, welcomed participants to the 4th APWS and stressed that water is the foundation of human prosperity. He also noted the Asia-Pacific region has been coping with the impacts of climate change on water security over the last 15 years, calling for solutions to water insecurity in the region.

Joining via live video, Naruhito, Emperor of JAPAN, highlighted water as the origin of all living things, as well as a source of increasing natural threats. He conveyed his condolences to the victims of natural disasters in Kumamoto and elsewhere.

Fumio Kishida, Prime Minister, JAPAN, said the COVID-19 pandemic has shown how crucial collaboration on humanity's common threats is and underscored the need for Heads of State to address the water problem. He hailed the Summit as an important



Yoshiro Mori, Former Prime Minister, Japan



Fumio Kishida, Prime Minister

opportunity to unite efforts for sustainable development in the Asia-Pacific region.

In a video message, UN Secretary-General António Guterres noted the world's progress toward achieving SDG 6 (clean water and sanitation) is severely off track. He reminded delegates that the Asia-Pacific region has the lowest per capita water availability in the world. He called for the prioritization of financing to improve water management, better cooperation to enhance resilience, and accelerated action.

Kazufumi Onishi, Mayor of Kumamoto, expressed pride in the city's groundwater quality, which, due to historic lava flows, provides "mineral water from the tap." He drew attention to the 2013 UN Best Water Practices award, "Water for Life," to Kumamoto, and commended the restoration work done following the 2016 earthquake in Kumamoto.

Mark Pascoe, APWF Governing Council, speaking on behalf of Ravi Narayanan, Chair of the APWF Governing Council, highlighted achievements of the Forum, including work with the ADB on the Asian Water Development Outlook as a benchmarking tool, and the hosting of previous summits in Japan, Thailand, and Myanmar.

Youth representatives officially declared the Summit open, underscored that water is a precious source of life, and called on leaders at the 4th APWS to provide guidance on protecting water resources.

In a keynote presentation, Emperor Naruhito spoke on humanity's relationship with water, saying, in many instances, the importance of water has led to folk traditions of water worship. He said this is exemplified by the worship of mountains, snakes, and dragons, all of which are related to the significance of water, stating many of these arose from daily interactions with water. He also outlined the SDGs relevant to water, noting significant increases in time and resources will be needed to meet these goals, and lauded the SDGs for having rallied the global community to achieve them. He noted the lack of water can cause much instability, calling on everyone to act in solidarity and with renewed urgency. He urged those present to develop concrete actions to realize the water-related SDGs.

Heads of State and Government Meeting and Kumamoto Declaration

This session, which took place on Saturday, was introduced by APWF President Mori. Japan's Prime Minister Kishida presented the Kumamoto Declaration, pledging Japan's support through sharing advanced technologies for improved water management and financial assistance of approximately 500 billion yen over the next five years.

Joko Widodo, President, INDONESIA, highlighted the use of environmentally friendly water-related infrastructure in his country. He also reported on successful advocacy leading to the UN Environment Assembly's recent adoption of a resolution on sustainable lake management.

Rodrigo Duterte, President, the PHILIPPINES, cited lessons from his country, noting that despite water abundance, access to safe and affordable water remained a challenge. He emphasized the need for coherent policies and investment for technological solutions, climate-resilient infrastructure, regional sustainable water management, inclusiveness, and just regimes.

Lionel Rouwen Aingimea, President, NAURU, said despite inroads made in water access, most groundwater in Nauru is contaminated, compounding water scarcity and requiring additional water storage. He highlighted the need for mobilizing resources in the water sector, upgrading infrastructure, and adopting renewable energy.

Noting his country's rich heritage in water management, Gotabaya Rajapaksa, President, SRI LANKA, underscored sustainability of water systems as a national priority, which, he stated, has led to improved water infrastructure and increased water connections.

Sadyr Japarov, President, KYRGYZSTAN, referred to melting glaciers and dry winters resulting in reductions in water resources, and to national initiatives focused on clean water programmes and expanding access to drinking water in rural areas.

Serdar Berdimuhamedow, President, TURKMENISTAN, highlighted efforts within the Aral Sea Basin and called for more effective cooperation by Asia-Pacific countries, including on energy, with broader exchange and sharing of experiences, innovative models, and management strategies.



Kazufumi Onishi, Mayor of Kumamoto



Changhua Wu, Vice-Chair, APWF Governing Council

Changhua Wu, Vice-Chair, APWF Governing Council, read out the Kumamoto Declaration and called on the 4th APWS to address barriers, achieve breakthroughs, and advance ways forward for reform and improvement of the water sector in the three areas of governance, finance, and science and technology.

The Heads of State and Government adopted the Declaration, which discusses challenges amid the COVID-19 pandemic and recovery, summarizes actions for transformation towards a quality-oriented society, and highlights outputs of the 4th APWS.

Summary of the Kumamoto Declaration: On *water challenges amid the COVID-19 pandemic and its recovery*, leaders of the 4th APWS:

- reaffirm the criticality and importance of water in dealing with hazards marked by widespread damage due to the pandemic; and
- recognize the water sector plays a vital role in recovering from the pandemic, reducing disaster risk, achieving multiple SDGs, and strengthening transboundary cooperation by restoring a sound water cycle.

On ***transformation towards a quality-oriented society***, the Declaration states that transformation should proceed through multi-stakeholder partnerships with open, transparent, participatory, and collaborative processes.

The leaders also commit to:

- improving water security and access to water and sanitation, which is a primary public health measure against infectious diseases;
- promoting climate change mitigation measures while utilizing low-emission energy sources in conjunction with adaptation measures and strategies for disaster risk reduction and infrastructure development;
- promoting green infrastructure that can provide mitigation and adaptation benefits for achieving carbon-neutral societies in harmony with nature and biodiversity conservation;
- working towards achieving access to safe and affordable drinking water and sanitation facilities for all, including women, youth and elderly persons, ending open defecation, reducing disaster risk, and attaining other water-related SDGs;
- rectifying inequalities in access to water and sanitation services and protection from disaster risk;
- deploying sustainable solutions by managing water resources more effectively by adopting a source-to-sea approach; and



Hun Sen, Prime Minister, Cambodia

- better integrating water resource management with DRR, environmental improvement, and greater water use efficiency.

For ***acceleration of efforts and realizing a quality-oriented society***, the leaders determine to strengthen the development of quality infrastructure for the water sector, integrating both hard and soft components, including knowledge, information, and data management.

To accelerate efforts, the leaders will:

- improve governance;
- share water-related lessons learnt in solving problems and sharing prosperity, subject to international agreements and national laws for growth to proceed cooperatively in river basins;
- close the financial gap;
- appeal to the science and technology community; and
- emphasize the importance of promoting education and capacity building for a new generation of water professionals to ensure, maintain, and improve a sound water cycle.

The leaders of the 4th APWS also acknowledge financial support from Japan as one of the outputs to tackle water-related challenges. They agree to communicate and share the outcomes of this meeting with other water-related discussion processes.

Lastly, they invited all participants of the 4th APWS to discuss ways forward for reform and improvement in governance, finance, and science and technology, formulate particularly substantive answers, and ensure this is part of the Summit's outcome.

High-Level Statements

On both days of the APWS, high-level participants from the region shared best practices in managing water for sustainable development and for the next generation.

Hun Sen, Prime Minister of CAMBODIA, said water in Cambodia is considered “white gold” and, therefore, water security is prioritized. He noted approaches adopted for water resource management today will determine the quality of life for us, our children, and the future.

Kausea Natano, Prime Minister of TULAVU, reported that his country is currently experiencing drought, and urged the promotion of DRR approaches, including early warning systems, to ensure people are well prepared for extended periods of drought.

Phankham Viphavanh, Prime Minister of the LAO PEOPLES DEMOCRATIC REPUBLIC (LAO PDR), called for future cooperation activities to focus on supporting subregional cooperation mechanisms for the environment, among other actions.

Sardor Umurzakov, Deputy Prime Minister, UZBEKISTAN, extended an invitation to all to attend the first international forum on the Aral Sea in September 2022, which will address international cooperation for recovery of the Aral Sea Basin ecological disasters caused by the diversion of the Amu Darya and Syr Darya rivers in the 1960s for agriculture.

Lotay Tshering, Prime Minister of BHUTAN, noted Bhutan aims to institutionalize its water system to optimize it and introduce dynamic water policies.

Phạm Minh Chính, Prime Minister of VIET NAM, urged: prioritizing regional and international cooperation in an open, transparent manner; providing scientific and technological support for developing countries; and promoting cooperation of subregional and interregional organizations for cross-border water basin management.

Emomali Rahmon, President of TAJIKISTAN, reaffirmed that water insecurity undermines progress on the SDGs. He said water is the key to climate adaptation and building resilience.

Sheikh Hasina, Prime Minister of BANGLADESH, reported her country has adopted an inclusive, whole-of-society approach to water management. She said over 85% of the population has access to safe water and sanitation, and highlighted challenges including salt intrusion into freshwater and a decline in groundwater levels.

Prayut Chan-o-cha, Prime Minister of THAILAND, reported on safeguarding freshwater through measures including a 20-Year Water Management Master Plan serving to guide water resource solutions, implement DRR, and mitigate against the impacts of climate change.

Dalton Tagelagi, Premier of NIUE, reported that the drinking water provided free for all citizens is safe, of high quality, and pumped directly to consumers without treatment. He highlighted plans for rainwater harvesting as a supplementary source of water.

David Kabua, President of the MARSHALL ISLANDS, highlighted collaboration with the Japan International



Moderator Tetsuo Saito, Minister of Land, Infrastructure, Transport and Tourism, Japan

Cooperation Agency (JICA) to support a new rainwater reservoir in Majuro Atoll to contribute to securing water supply during times of drought.

Shri Gajendra Singh Shekhawat, Union Cabinet Minister of Jal Shakti, INDIA, discussed initiatives in his country, including the Jan Jivel Mission, an ambitious project for water connection to over 190 million households by 2024. He reported that so far, the project has reached 94 million households.

Basuki Hadimuljono, Minister of Public Works and Public Housing, INDONESIA, discussed a taskforce to improve dams for water storage and to contain discharge during flood peaks. He reported that so far 29 dams have been constructed against a target of 61 dams by 2024.

Special Showcase Session

On Saturday, Tetsuo Saito, Minister of Land, Infrastructure, Transport and Tourism (MLIT), JAPAN, opened the Special Session, which showcased model initiatives utilizing science and technology for governance.

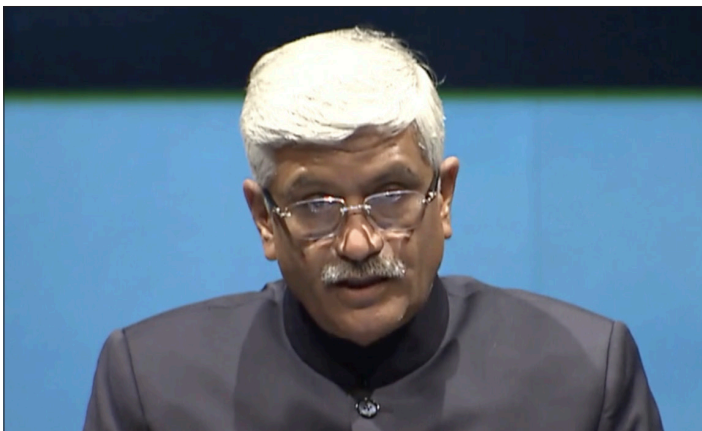
Nihal Siriwardana, Director General of Irrigation, Ministry of Irrigation and Water Resources Management, SRI LANKA, discussed measures taken to improve irrigation schemes and dams for multilevel resilience and sustainability.

Basuki Hadimuljono, Minister of Public Works and Public Housing, INDONESIA, discussed work towards the completion of 61 dams by 2024 aimed at increasing water security, which has, in turn, increased irrigation areas from 11% to 20%.

Anthony Sales, Regional Director, Department of Science and Technology, the PHILIPPINES, presented multilevel measures to sustain water security and resilience against the impacts of climate change.

Kazufumi Onishi, Mayor of Kumamoto, highlighted trans-municipal water conservation in the Shirakawa River and the rice fields.

During the panel discussion, Han Seung-Soo, Chair, High-level Experts and Leaders Panel on Water and Disasters (HELP), said sustainable financing is essential for upscaling and replicating successes. Yoko Kamikawa, parliamentarian and former Minister of Justice, JAPAN, commented that success depends on investing in people as mediators between decision makers, and science and technology.



Shri Gajendra Singh Shekhawat, Ministry of Jal Shakti, India



Howard Bamsey, GWP Chair

María Angelica Sotomayor, World Bank Water Global Practice, noted that building resilience requires bringing all stakeholders, data, science, and technology together.

Joy Jacqueline Pereira, Working Group II Vice-Chair, Sixth Assessment Report, Intergovernmental Panel on Climate Change (IPCC), said integrated and inclusive funding and investment is key to ensuring climate change mitigation and an equitable transition to sustainable societies.

Thematic Sessions

These sessions took place on both Saturday and Sunday.

Source-to-Sea: Moderated by Hirotada Matsuki, Director, Water-related Hazard Research Group, Public Works Research Institute, Japan, the session discussed the importance of the hydrological water cycle for the natural environment and human societies.

In opening remarks, Howard Bamsey, GWP Chair, underscored that water and environment are inextricably linked but often management is not, resulting in fragmented, inefficient, and potentially destructive management. Peter Thomson, UN Secretary-General's Special Envoy for the Ocean, called for "walking the source-to-sea talk" and urged breaking down the silos to reach for innovative solutions that will put us firmly on the path to a sustainable future.

Serikkali Brekeshev, Minister of Ecology, Geology and Natural Resources, KAZAKHSTAN, spoke on the restoration of ecosystems in the northern Aral Sea, noting plans to strengthen cooperation with partners. Taizo Mikazuki, Governor of Shiga Prefecture, JAPAN, described developing "Mother Lake Goals" to bridge the SDGs with local conservation activities as part of efforts to conserve Lake Biwa.

Ying Li, Yangtze Water Partnership MSP Project Group, China, discussed the "river chiefs" system whereby "chiefs" are appointed to be responsible for a section of the river, thus avoiding confusion over which department oversees the river's governance. Elvira Apriana, Universitas Gadjah Mada, Indonesia, presented a case study in Sembalun District, Rinjani-Lombok, Indonesia, as part of the UN Educational, Scientific and Cultural Organization (UNESCO) Water Resilience Challenge 2021.

So Nam, Chief Environment Management Officer, Environmental Management Division, Mekong River

Commission, spoke on integrated water resources and environmental management for sustainable development in the Lower Mekong Basin, underscoring the importance of cooperation. Keiko Muraoka, Water Environment Research Group, Public Works Research Institute, Japan, addressed the national census on river environments in Japan, saying continuous data is necessary to assess changes over time.

In closing, Ayuko Kato, Parliamentary Vice-Minister of Land, Infrastructure, Transport and Tourism, JAPAN, emphasized sound water circulation from forest to sea.

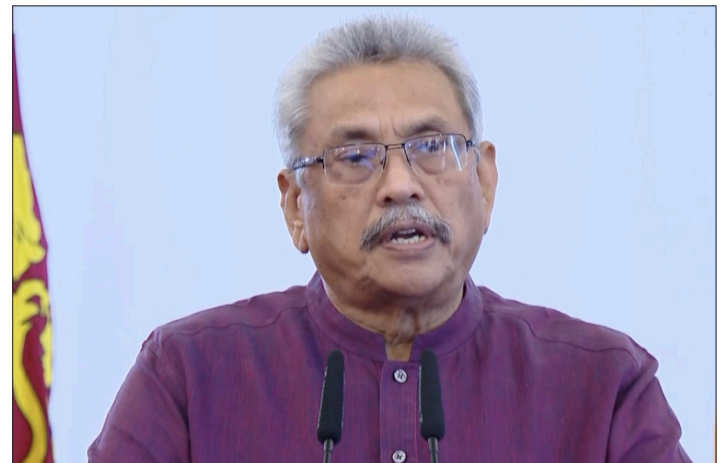
Innovation and Youth: This session discussed how to meaningfully, intentionally, and purposefully engage youth to drive projects contributing to meeting the SDGs.

In opening remarks, Tsugihiko Watanabe, Water Resource Research Laboratory, Center for Water Cycle, Marine Environment and Disaster, Management, Kumamoto University, and Khanh-Minh Nguyen, Youth for Asia Initiative, ADB, said youth are innovative, resourceful, and disruptive, and can influence change at all levels.

Three case studies of successful youth-led projects were presented by: Tharika Fernando, Sri Lanka; Maria Tsuzuki, Japan; and Gina Kandiaty, ADB. Fernando highlighted the Bindu Drops project aimed at bringing water to dry areas in Sri Lanka. Tsuzuki highlighted the SDGs Project at Linden Hall High School, in Fukuoka, Japan, which uses recycled waste for school uniforms, resulting in water savings. Kandiaty noted five pillars of meaningful youth engagement: youth and diversity; enabling environment; youth-adult partnerships; youth participation; and youth empowerment.

During a panel discussion moderated by Rianna Gonzales, GWP, Toshiyuki Miyazaki, Kyushu Regional Agricultural Administration Office, Japan, discussed the importance of involving youth in the management of agricultural waters. Youth representative Kei Namba called for meaningful engagement and for more spaces for youth participation, including in conferences and symposia.

Panelists stressed the need for: more explicit engagement with youth and adequate resources for this; addressing gender



Gotabaya Rajapaksa, President, Sri Lanka

imbalance; and building trust and ensuring youth are included in water conversations.

Water Supply: This session, moderated by Changhua Wu, Vice-Chair, APWF Governing Council, discussed different models of investment and maintenance of water supply systems, improving governance and integrity, and promoting tariff models that provide sustainability and affordability.

Fuimaono Dominic Schwalger, Managing Director, Samoa Water Authority (SWA), noted SWA's partnership with Okinawa Prefecture, Japan, has enabled improvement in Samoan water supply infrastructure. He also noted grassroots cooperation had allowed staff to travel to Japan for technical training on water supply management.

Atsushi Koresawa, Regional Representative for Asia-Pacific, UN-Habitat, warned that countries in the region face an increasing gap to achieve the SDGs. He presented UN-Habitat's work toward achieving the SDGs, including SDG 11 on sustainable cities and communities, and the New Urban Agenda, including partnership activities to provide toilets, contactless handwashing stations, and underground tanks for rainwater harvesting.

Simi Kamal, Chair, Hisaar Foundation, Pakistan, presented challenges and opportunities for water governance in the megacity of Karachi. She noted water supply is about half of what it should be, with availability just two to four hours a day. She described governance challenges, including: the "water tanker mafia" that supplies water to large parts of the city through informal means at high prices; a politicized water authority board; a fast-growing population; and the structure of local administration, such that laws cannot be applied uniformly across the city. She proposed solutions, such as dynamic and continuity of leadership that includes more women in policymaking, regulating groundwater extraction, and reinvigorating policy measures.

Water and Sanitation/Wastewater Management: Pierre Flamand, Japan Sanitation Consortium, moderated the session. In opening remarks, Norihiro Nakayama, Vice-Minister, Foreign

Affairs, JAPAN, drew attention to progress made through the Asia Wastewater Management Partnership.

Yasushi Hosaka, Parliamentary Vice-Minister of the Environment, JAPAN, said diffusion of sewage treatment facilities is essential to achieving the SDGs.

In the keynote address, Seiichi Onodera, Senior Vice President, JICA, highlighted the agency's Clean City Initiative, and noted the increasing popularity of the concept of city-wide inclusive sanitation.

Avi Sarkar, Regional Advisor, Southeast Asia, UN-Habitat, emphasized the relevance of community involvement, as reflected in SDG target 6.b on the participation of local communities and in the New Urban Agenda. He highlighted UN-Habitat's participatory methodologies in the pro-poor Water for Asian Cities and Waste Wise Cities programmes.

Taku Fujiwara, Kyoto University, moderated the panel discussion and introduced the speakers: Ryuji Uematsu, MLIT, JAPAN; Pham Ngoc Bao, Institute for Global Environmental Strategies (IGES); Allison Woodruff, ADB; Numeri Zaman, Ministry of Local Government, Rural Development and Cooperatives, BANGLADESH; Meena Shrestha, Ministry of Water Supply, NEPAL; and Mai Thi Lien Huong, Ministry of Construction, VIET NAM.

Panelists noted progress on some partnerships initiated by Japan, including the Water-Environment Partnership in Asia and the Asia Wastewater Management Partnership. Bao observed a standards-based approach is insufficient to improve water quality in the region, stating IGES has introduced the concept of total maximum daily load for managing water pollution.

Woodruff encouraged resource recovery measures, such as using fecal sludge for fertilizer, generating bioenergy through wastewater treatment, and seeking opportunities for reuse of wastewater.

Other panelists presented experiences from Bangladesh, Nepal, and Viet Nam. Huong stressed the need for financial sustainability through introducing a "drainage service price" that puts the principles of "polluter pays" and "full-service recovery" into practice.

In closing, Fujiwara noted the need for well-organized governance, including outreach activities and stakeholder participation, as well as wise investment through public-private partnerships.

Water and Food: Rokuta Shimono, Parliamentary Vice-Minister for Agriculture, Forestry and Fisheries, JAPAN, noted implementation of a green food strategy to ensure a sustainable food system, and underscored the importance of historical agricultural irrigation systems for crop production.

Guizgeldy Baijanov, Chairman, State Committee for Water Management, Turkmenistan, underscored the need for the water sector to meet both economic and social needs. Priorities, he stated, include providing loans to introduce water-saving technologies, meeting the needs of the agricultural sector, and conducting water diplomacy.



Panelists in the session on water and sanitation and wastewater management, shared experiences from Nepal, Vietnam, Bangladesh, and other countries.



Mio Oka, ADB

Kyohei Matsushita, Shiga University, Japan, outlined a study conducted on water use efficiency with accrued benefits to both agricultural production and quantity of water used.

Sanjiv de Silva, International Water Management Institute (IWMI), discussed the role of water user associations in Myanmar, saying they are part of broader, long-term regional development investments. He explained they must not be imposed on members, but rather be seen as endogenous creations.

Maher Salman, Food and Agriculture Organization of the UN, presented three case studies of technology deployment for water use in the agricultural sector, saying technology should be co-developed within a pro-poor context to ensure uptake by risk-averse users.

Mio Oka, Director, Environment, Natural Resources and Agriculture Division, South Asia Department, ADB, said the ADB has adapted its operations to deliver on climate financing, including through working in dry zones and with national ministries to establish national water programmes.

On water use efficiency in paddy fields, Keigo Noda, Gifu University, Japan, said little work has been conducted on water use efficiency and ecosystem services, and that trade-offs and synergies should be evaluated quantitatively.

Water, Culture and Peace: Han Seung-soo, HELP Chair, highlighted the work of HELP in developing guiding principles for drought risk management under a changing climate, launched at the World Water Forum in March 2022.

Howard Bamsey, GWP Chair, stressed the need for ambitious targets on transboundary water cooperation, noting only a few countries have put in place financing or operational arrangements for joint management.

Shahbaz Khan, UNESCO, highlighted the role of UNESCO geoparks in Asia in promoting awareness and global citizenship education around water and culture.

Danilo Türk, Chair, Global High-Level Panel on Water and Peace and former President of Slovenia, stressed that water is a flashpoint for conflict because “the only substitute for water is water.” He emphasized the need for a strong conceptual framework for international cooperation on water-related disasters, and outlined a set of principles, currently in draft stage, to foster peace before, during and after a disaster.

Azimjon Nazarov, First Deputy Minister of Water Resources, UZBEKISTAN, described actions to manage water risk and loss, mentioning, among others: water-saving irrigation technology; water-use fees for farmers; and multilateral and bilateral talks with neighboring countries.

Olga Algayerova, Executive Secretary, UN Economic Commission for Europe, and UN Under-Secretary-General, invited members of the region to join the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (the Water Convention). She called on all concerned to ensure the UN 2023 Water Conference will be “a watershed event” for transboundary cooperation.

Students from several Asian universities then presented their mapping of 574 “water heritage” sites, introducing historic water infrastructure and water management sites from France, Thailand, China, and other parts of the world.

Finally, speakers from the US, Indonesia, the Netherlands, and the GWP presented examples of effective water sharing and cooperation arrangements from ancient to modern times.

Water Cycle Including Groundwater: Yasunori Kawagoshi, University of Kumamoto, moderated the session. Hisao Ogawa, President, Kumamoto University, highlighted Kumamoto’s unique natural features and abundant underground water and stressed co-creation through collaboration and engagement of all stakeholders.

Kei Ishida, Kumamoto University, presented an integrated groundwater cycle model for understanding causes of flood and drought and generating future projections under a changing climate.

Drawing attention to UNESCO’s campaign “Making the Invisible Visible,” Neno Kukurić, Co-Coordinator of the UN-Water Task Force World Water Day 2022, presented on groundwater from a global perspective. He noted insufficient knowledge and inadequate management, calling for more assessments and highlighting the Global Groundwater Monitoring Network, which supports national monitoring programmes.

Hans Dencker Thulstrup, UNESCO Jakarta, shared initiatives to engage Asia-Pacific youth in water cycle management, including UNESCO’s Water Education for Climate Resilience, the Youth Leadership for Resilience Water Security program, the UNESCO Water Resilience Challenge, and a pedagogic framework for virtual field trips to support active learning in water management, developed during the COVID-19 pandemic.

Sayuri Mitsuhashi, Secretary General, Secretariat of the Headquarters for Water Cycle Policy, Cabinet Secretariat, Japan, elaborated on the concept of a “sound water cycle,” emphasizing the importance of disclosure by private companies on water-related risks and highlighting the development of a water scarcity risk indicator.

Kimio Katsuya, Executive Director, Kumamoto Groundwater Foundation, spoke about efforts by the Foundation related to conservation of groundwater in Kumamoto, highlighting visualization, quality and quantity conservation, and appropriate use through awareness.

Megan McLeod, Water Stewardship Asia Pacific, stressed the need for finance to incentivize credible water stewardship to attract and mobilize private investment in water. She highlighted the Suntory company's contributions in the natural water cycle in Japan, the Renmark irrigation settlement in South Australia, and the Indonesia Water Coalition as examples of water stewardship for sustainable development.

Kaoru Takara, Secretary General, Asia Pacific Association of Hydrology and Water Resources, highlighted local trends, information, partnerships, and financing for developing countries.

In an ensuing discussion, participants emphasized visualization, engagement, and education, and said the search by youth for meaning and purpose must be capitalized on and supported.

In closing remarks, Norihiro Nakayama underscored collaboration among academia, industry, and local government.

Water and Disaster/Climate Change: This session discussed end-to-end efforts for shifting to a sustainable and resilient path under climate change.

In opening remarks, Yoshimasa Hayashi, Ministry of Education, Culture, Sports, Science and Technology, JAPAN, highlighted Japan's history of water-related disasters, which have led to advances in disaster prevention.

In a keynote speech, Juma Daler, Minister of Energy and Water Resources, TAJIKISTAN, highlighted his country's regional and international initiatives on water, including co-chairing the UN 2023 Water Conference with the Netherlands, and calling for declaring 2025 the international year of glaciers.

Hiroshi Yamakawa, Japan Aerospace Exploration Agency (JAXA), highlighted the role of space observation technologies in reducing the impacts of water disasters and enabling flood prediction and life-saving evacuation plans. Henk Ovink, Special Envoy for International Water Affairs, the NETHERLANDS, emphasized capacity building, data accessibility, governance at all levels, reliable budgeting, and enabling environments.

Neeta Pokhrel, Chief, Water Sector Group, ADB, focused on financing resilience to tackle water-related disasters and climate change in the Asia-Pacific region. She stressed the need to raise local resources, crowding-in private sector financing, digital technologies and innovations, and synergized actions.

This panel discussion was moderated by Toshio Koike, Executive Director, International Centre for Water Hazard and Risk Management. Rajib Shaw, Coordinating Lead Author of the IPCC Working Group II Sixth Assessment Report and Keio University Professor, spoke on the IPCC report on climate change impacts, noting risk has become more complex and compounded, requiring thinking of non-climatic drivers as well.

Robert Borje, Vice-Chair, Climate Change Commission, the Philippines, emphasized climate justice and called for greater technology and knowledge sharing, and accessible financing. Keiko Segawa, Deputy Director-General, Global Environment Bureau, Ministry of the Environment, Japan, highlighted capacity building and training of government officials for adaptation and the need to engage municipalities.



Daler Juma, Minister of Energy and Water Resources, Tajikistan

Water and Poverty/Gender: Akiyuki Kawasaki, Professor, Institute for Future Initiatives, University of Tokyo, introduced the session. In a keynote speech, Kusum Athukorala, Chair, GWP-South Asia, noted that consideration of the links between poverty and gender issues are often an afterthought for programmes. She exhorted scientists to question how research findings reach and penetrate to the ground level.

Gouri De Silva, University of Peradeniya, Sri Lanka, discussed the relationship between flood impacts and poverty in Sri Lanka, highlighting the need for specific policies for different socioeconomic groups. Risa Nakamura, University of Tokyo, Japan, spoke about science-based policymaking for reducing poverty and disaster risk.

Poonam Sewak, Safe Water Network India, and Veena Khanduri, GWP-India, presented the Safe Water Enterprise programme promoting women social entrepreneurs through involvement in water ATMs for low-income communities, which provide access to safe water to 1.3 million people across 350 communities. Shohida Tulieva, Helvetas Swiss Intercooperation, Tajikistan, spoke on women and gender mainstreaming in water resource management in Tajikistan and the creation of the Basin Women's Forums.

Sanjiv Da Silva and Mohamed Aheeyar, IWMI, spoke on climate insurance and social inclusion, noting basic challenges due to technocratic approaches of insurance schemes with limited social investment.

Discussing ways of addressing gender equality and social inclusion in water, sanitation, and hygiene (WASH) programmes, Jess MacArthur, University of Technology Sydney, Australia, introduced the WASH-GEM toolkit, which includes interview surveys and allows photo story sharing through smartphones.

In a panel discussion, chaired by Liza Debevec, Senior Gender and Water Specialist, GWP, panelists highlighted issues, including: education and career equity; poor quality education and low salaries for water management personnel; and lack of awareness of women's role in water use and management.

Special High-Level Session for SIDS: This special session on vulnerabilities to climate disasters and SIDS-specific water issues will contribute to upcoming water-related meetings, including the 7th Global Platform for Disaster Risk Reduction to be held in May 2022 in Bali, Indonesia.

Kenzo Hiroki, HELP, moderated the session and Han Seung-soo, HELP Chair, made opening remarks.

Jan Adams, Ambassador of AUSTRALIA to Japan, drew attention to the forthcoming Asia-Pacific Ministerial on Disaster Management in September 2022, saying that regional and multilateral processes can support SIDS to handle multiple challenges.

High-level SIDS representatives highlighted challenges and urged support for: improving water catchments; increasing local capacities for resilience; sharing best practices on water resource management; and promoting DRR policies and actions. Speakers included: Kausea Natano, Prime Minister, TUVALU; David Kabua, President, MARSHALL ISLANDS; John Fritz, Ambassador Extraordinary and Plenipotentiary, FEDERATED STATES OF MICRONESIA; Faalavaau Perina Jacqueline Sila-Tualualelei, Ambassador of SAMOA to Japan; and Tevita Suka Mangisi, Ambassador of TONGA to Japan,

President Kabua also called for appropriate water technology besides reservoir construction to provide water affordably to all, including those living in the remotest atolls. Sila-Tualualelei emphasized the need to tackle saltwater intrusion and related health risks.

Hiroshi Yamakawa, JAXA, illustrated the use of space technology to monitor cyclones, rainfall changes, and other occurrences to provide early warning for local communities and governments.

Alexandra Galperin, ADB, discussed a pilot approach to disaster risk assessment in the Pacific, which uses hazard analysis and climate projects for investment planning.

Kazushige Endo, Director, UN Centre for Regional Development, highlighted Okinawa as a case study of a climate-smart island city that has taken actions to reduce climate vulnerability and increase urban resilience.

In closing, Henk Ovink, Special Envoy for International Water Affairs, the NETHERLANDS, looked forward to the upcoming UN 2023 Water Conference, which, he said, will be a platform to showcase SIDS' commitments and actions.

Integrated Sessions

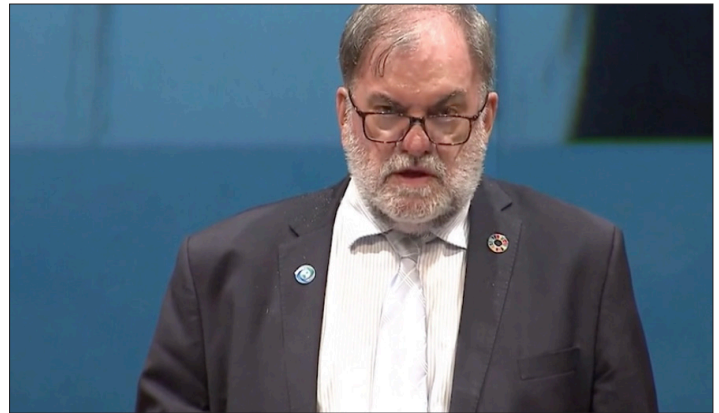
These sessions took place on Sunday.

Governance: This session discussed advancing water governance for optimal stakeholder collaborations across sectors and inter-generationally, to achieve a water-secure Asia-Pacific region by 2030.

Sayuri Mitsuhashi, Director-General, Water Resources Department, MLIT, moderated the session.

Norihiro Nakayama, Vice-Minister, Foreign Affairs, JAPAN, presented Japan's experiences, highlighting 61 local government authorities that have put in place river basin water cycle plans, and increased small-scale hydropower generation.

Howard Bamsey, Chair, GWP, urged "reversing the lag" in climate action in the region. He called for bringing together the marine and freshwater policy communities and accelerating the conservation of marine and coastal areas.



Mark Pascoe, incoming APWF Chair

Yumiko Yasuda, Senior Network and Transboundary Water Cooperation Specialist, GWP, moderated the panel discussion.

Dinara Ziganshina, Acting Director, Scientific Information Center, Interstate Commission for Water Coordination in Central Asia, stated that regional agreements provide the best venue for political and legal commitments, and that river basin commissions can adopt routines that put such commitments into practice.

Bibi Zarina Che Omar, Deputy Director-General, Department of Irrigation and Drainage, Malaysia, explained that under Malaysia's federated system, water resources come under province-level (state) governments and management is guided by its 2012 national water resources policy, the 12th Malaysia Plan, and various statutory instruments.

Amgad Elmahdi, Senior Water Resources Management Specialist, Green Climate Fund (GCF), announced a forthcoming water security guide that will communicate the GCF's approach to water sector transformation through greenhouse gas reduction, and climate adaptation through IWRM.

Fany Wedahuditama, Regional Coordinator, GWP Southeast Asia, noted that institutions need to create engagement mechanisms. He highlighted GWP Southeast Asia's Integrated Water Security Open Program, which is mapping action on the ground to be able to present opportunities for connections among different actors.

Shinjiro Kanae, Professor, Tokyo Institute of Technology, stressed the importance of dialogue, transparent data, and information sharing, and for evidence-based, science-based water management.

Santosh Kumar, Head of Division, National Institute for Disaster Management, India, stressed the important role of local government authorities and called for addressing gender discrimination, including through action to bring more women into public policymaking.

Mark Pascoe, incoming APWF Chair, presented a list of concrete actions arising from the discussions and highlighted the need for presenting case studies and best practices. He proposed using social media to quickly share "what works" and what does not.

In closing, Seiichi Onodera, JICA, thanked all participants and emphasized that “no common framework” exists for water governance, which, he noted, must be tailored to countries’ specific characteristics.

Finance: Moderated by Akihiro Shimasaki, MLIT, this session explored how investment to address water security and DRR can be maximized.

Neeta Pokhrel, Chief, Water Sector Group, ADB, outlined approaches to mobilizing finance including: making effective and efficient use of available resources; mobilizing local resources through taxes and tariff reforms; and using innovative financing to blend public and private finance.

Takeya Kimio, DRR Advisor, JICA, urged addressing water as a development issue, stating pre-disaster investment is essential as it can lead to less mortality and damage in the face of disaster.

Roger G. Mercado, Acting Secretary, Department of Public Works and Highways, the PHILIPPINES, provided an overview of disasters, saying the Government of the Philippines is working to mitigate them. He outlined infrastructure projects that have been initiated in this regard.

Akihiro Shimasaki summarized the inputs to the session saying it integrates the nine thematic sessions.

Patricia Lopez, Senior Infrastructure Finance Specialist, World Bank, noted most developing countries’ water sectors have been financed through concessionary finance, as accessing finance from the private sector is difficult due to low-cost recovery. She encouraged enabling environments conducive to accessing private sector financing.

Xavier Leflaive, Principal Administrator (Water), Organisation for Economic Co-operation and Development, outlined four pillars for financing in the water sector: make the best use of available assets and financial resources; avoid building future liabilities; improve tools to plan and decide on investments and financing mechanisms; and harness additional sources of finance.

Christopher Ilagan, Chair, GWP Philippines, said public finance has a role but is often insufficient, private sector financing can play a bigger role, and IWRM is a core approach to maximize investment and finance for water security.

During closing remarks, Takeya Kimio emphasized the role of political leadership for sufficient progress to be made.

Science and Technology: This session was moderated by Toshio Koike, International Centre for Water Hazard and Risk Management, Japan.

In opening remarks, Shamila Nair-Bedouelle, UNESCO, presented on science-related efforts towards building more water-resilient societies, highlighting international consensus around open science and initiatives under the ninth phase of the Intergovernmental Hydrological Programme and the Climate Risk Informed Decision Analysis.

Via a pre-recorded video, Rahm Emanuel, US Ambassador to Japan, welcomed the conference’s work on water security and highlighted cooperation on climate change. He introduced Garvey McIntosh, National Aeronautics and Space Administration



Yōko Kamikawa, Member of the House of Representatives, Former Minister of Justice, Japan

(NASA) Asia Representative, who presented NASA’s work on earth observation, including its global precipitation mission in collaboration with Japan, and the Earth System Observatory.

Michio Kawamiya, Japan Agency for Marine-Earth Science and Technology, spoke on earth system models as tools for facilitating consilience among different scientific fields and supporting decision making in climate change adaptation.

Noting that the main problem is “not global warming but global drying,” Johannes Cullmann, Director, Climate and Water Department, World Meteorological Organization, underscored the need for data integration, analysis, and information sharing to address water insecurity in a changing climate.

Shahbaz Khan, Director, UNESCO Beijing Cluster Office, addressed UNESCO’s initiatives related to capacity building and water-related local and Indigenous knowledge. He stressed the need for recognition of local and Indigenous rights, traditional values, and diverse Indigenous governance frameworks.

Tomoo Inoue, Director-General, Water and Disaster Management Bureau, MLIT, presented science-based tools for disaster risk assessment decision making. He underscored the importance of human resources, education, capacity building for decision making, and collaboration.

Summarizing, Koike highlighted: integration in observations, models, data, and analysis; sustained education frameworks; evidence-based decision making; and open science policy.

In closing, Takayuki Hayashi, Ministry of Education, Culture, Sports, Science and Technology, Japan, emphasized the use of a consilience system to facilitate regional decision making and collaboration to support a more sustainably advanced and balanced society.

Water-related SDGs and Post-COVID-19: In a final integrated session, Summit participants discussed the messages and outcomes of the integrated sessions on governance, finance, and science and technology.

Han Seung-soo, Chair, HELP, introduced the session.

In opening remarks, Yoko Kamikawa, parliamentarian and former Minister of Justice, JAPAN, called for quality growth as expressed in the Kumamoto Declaration. She stressed the importance of leapfrogging, green infrastructure, monitoring



Han Seung-soo, HELP Chair and former Prime Minister of the Republic of Korea

glaciers as barometers of the water cycle, and comprehensive water risk management.

Noting that water availability in Central Asia will reach a critical point by 2040, Daler Juma, Minister of Energy and Water Resources, TAJIKISTAN, outlined his country's efforts to raise awareness and called on all to join the forthcoming Second High-Level Water Action Decade Conference in Dushanbe to take up new commitments for practical action.

In a written statement, Basuki Hadimuljono, Minister of Public Works and Public Housing, INDONESIA, highlighted actions, including e-learning initiatives for river basin management, investment schemes for water flows from source to users' taps, and the rehabilitation of swamp areas and reservoirs.

Christiane Rohleder, State Secretary, Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection, GERMANY, called for a paradigm shift to achieve progress in the water-related SDGs, stating cross-sectoral, cross-regional action will be key.

Peter Thomson, UN Secretary-General's Special Envoy for the Ocean, called for the "source-to-sea ethos to rule our thinking," and encouraged financing that recognizes the water system as a whole.

Catarina de Albuquerque, CEO, Sanitation and Water for All (SWA), called for high-level political leadership that will provide the necessary "cooperation, coherence and courage" to fully implement WASH commitments, drawing attention to the human potential that can be realized. She announced the 2022 Sector Ministers' Meeting of SWA from 18-19 May 2022 in Jakarta, Indonesia, will bring together more than 80 ministers, and she called for cross-regional learning to scale up effective actions.

Henk Ovink, Special Envoy for International Water Affairs, the NETHERLANDS, and Sulton Rahimzoda, Chairman, Executive Committee of the International Fund for saving the Aral Sea (EC IFAS), briefed participants on preparations towards the UN 2023 Water Conference. Ovink said the conference will be "radically inclusive," cross-sectoral, and action-oriented.

Closing Session

Changhua Wu, Vice-Chair, APWF Governing Council, moderated the session. Han Seung-soo, Chair, HELP, read the final outcomes of the Summit sessions, which were organized in terms of recommendations towards sustainable, resilient, and

inclusive societies and emphasized the central role of water in achieving the SDGs.

Yoko Kamikawa, parliamentarian and former Minister of Justice, JAPAN, expressed hope the global water process will undergo critical discussions culminating in the UN 2023 Water Conference, powered by the outcomes from this Summit and the Kumamoto Declaration.

Mark Pascoe, incoming APWF Chair, presented the Chair's Summary of the integrated sessions on behalf of Yoshiro Mori, APWF President, highlighting the Summit's commitment to a path towards quality growth that is resilient, sustainable, and inclusive.

Ravi Narayanan, outgoing APWF Chair, handed over chairmanship to Mark Pascoe, commending his academic rigor, broad network, and gentle manner.

Youth representatives presented their conclusions, asking countries to create pathways for youth involvement and meaningful participation in action on water-related issues. They also urged empowerment in demonstrating expertise in technology, innovation and data, and entrepreneurship.

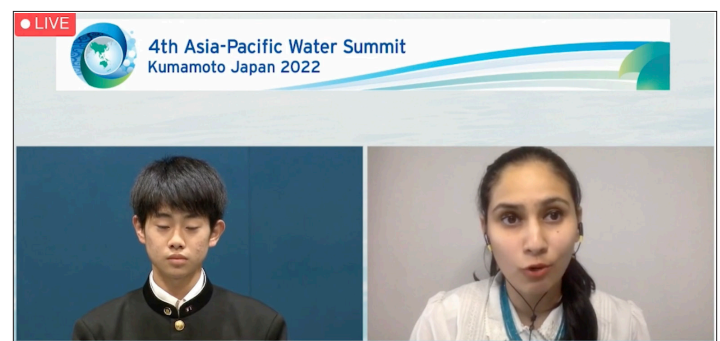
Nakayama Norihiro, Vice-Minister for Foreign Affairs, JAPAN read out a statement from Saito Tetsuo, Minister of Land, Infrastructure, Transport, and Tourism. Saito lamented the spread of COVID-19 has impacted progress in the SDGs, stressing water is a cross-cutting issue that needs to be addressed to achieve many of the Goals. He stated the conference will strengthen efforts in this regard in the Asia-Pacific region.

Kazufumi Onishi, Mayor of Kumamoto, lauded the adoption of the Kumamoto Declaration. He urged combining sustainability, resilience, and inclusiveness for the sustainable use of water. He thanked delegates for their participation at the meeting and gavelled it to a close at 18:49 JST.

Upcoming Meetings

Sanitation and Water for All (SWA) 2022 Sector Ministers' Meeting (SMM): This meeting will take place under the theme "Building Forward Better for Recovery and Resilience." For the first time, the 2022 SMM will bring together ministers of WASH and their counterparts responsible for climate, environment, health, and the economy, to increase the political prioritization of WASH. **dates:** 18-19 May 2022 **location:** Jakarta, Indonesia **www:** www.sanitationandwaterforall.org/2022-sector-ministers-meeting

Seventh Session of the Global Platform for Disaster Risk Reduction (DRR): The Global Platform for DRR is the



Youth Representatives during the closing ceremony

multistakeholder forum to review progress on implementation of the Sendai Framework for DRR. The session will take place on the theme “From Risk to Resilience in a COVID-19 Transformed World.” **dates:** 23-28 May 2022 **location:** Bali, Indonesia **contact:** globalplatform@un.org **www:** globalplatform.undrr.org

Stockholm+50: Sweden will host an international event marking the 50th anniversary of the 1972 UN Conference on the Human Environment and the creation of UNEP. **dates:** 2-3 June 2022 **location:** Stockholm, Sweden **www:** government.se/government-policy/stockholm50/

Second High-Level International Water Action Decade Conference: This conference is part of the Dushanbe Water Process and is co-organized by the Government of Tajikistan and the UN as an important milestone towards the UN 2023 Water Conference. The conference aims to catalyze water action and partnerships toward implementation of the 2030 Agenda for Sustainable Development, the Paris Agreement on climate change, the Sendai Framework for DRR, the Addis Ababa Action Agenda on Financing for Development, and the New Urban Agenda. **dates:** 6-9 June 2022 **location:** Dushanbe, Tajikistan **www:** dushanbewaterprocess.org/conference/

UN Ocean Conference: The UN Ocean Conference, hosted by the Governments of Kenya and Portugal, seeks to mobilize global action around SDG 14 and propel science-based innovative solutions. The event will include a High-Level Symposium on Water, hosted by Portugal, on “Bridging SDG 6 and SDG 14”, which will reflect on interlinkages between the global goals on water and sanitation, and life below water. **dates:** 27 June – 1 July 2022 **location:** Lisbon, Portugal **www:** www.un.org/en/conferences/ocean2022

HLPF 2022: The 10th session of the HLPF will review implementation of SDG 4 on quality education, SDG 5 on gender equality, SDG 14 on life below water, SDG 15 on life on land, and SDG 17 on partnerships for the Goals. The session will also consider the impacts of the COVID-19 pandemic across all SDGs. **dates:** 5-7 and 11-15 July 2022 **location:** UN Headquarters, New York **www:** sustainabledevelopment.un.org/hlpf

World Water Week: This annual event is organized on the theme “Seeing the Unseen: The value of water” and will cover such topics as food security, health, agriculture, technology, biodiversity, and climate. **dates:** 23 August – 1 September 2022 **location:** Stockholm, Sweden **www:** www.worldwaterweek.org

UN Biodiversity Conference (CBD COP 15): Following multiples postponements due to the COVID-19 pandemic, the 15th session of the Conference of the Parties to the Convention on Biodiversity, the tenth meeting of the COP serving as the meeting of the Parties to the Cartagena Protocol on Biosafety, and the fourth meeting of the COP serving as the meeting of the Parties to the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization will take place in person in Kunming, China. COP 15 is expected to adopt the post-2020 global biodiversity framework, which provides a vision and roadmap for conservation, protection, restoration and sustainable management of biodiversity and ecosystems for the next decade. **dates:** 29 August – 9 September 2022 **location:** Kunming, China **www:** www.cbd.int/cop/

Asia-Pacific Ministerial Conference on Disaster Risk Reduction: This conference, hosted by the Government of Australia, will bring delegates from across the Asia Pacific to showcase and share experiences, action, and innovation to help build a resilient future for the region. It takes place ahead of the Mid-Term Review of the Sendai Framework for DRR (2015-2030) in 2023, which will focus on progress and commitments in the Asia-Pacific region. **dates:** 19-22 September 2022 **location:** Brisbane, Australia **www:** www.undrr.org/event/asia-pacific-ministerial-conference-disaster-risk-reduction-apmcdrr-2022

Seventh International Marine Debris Conference: The Seventh International Marine Debris Conference will bring together close to 50 countries and regions to discuss a range of topics, including: prevention of microplastics; collaboration with the private sector; and effective implementation of laws, regulations, and policies. This is the first time the conference, held under the auspices of the US National Oceanic and Atmospheric Administration, will take place in a country other than the US. **dates:** 18-23 September 2022 **location:** Busan, Republic of Korea **www:** www.7imdc.org

UNFCCC COP 27: COP 27 was originally scheduled for November 2021 and was rescheduled due to the COVID-19 pandemic. **dates:** 7-18 November 2022 **location:** Sharm El-Shaik, Egypt **www:** unfccc.int

UN 2023 Water Conference: This is the 2023 Conference for the Midterm Comprehensive Review of Implementation of the UN Decade for Action on Water and Sanitation (2018-2028). The conference, co-hosted by Tajikistan and the Netherlands, will take place at UN Headquarters. **dates:** 22-24 March 2023 **location:** UN Headquarters, New York **www:** sdgs.un.org/conferences/water2023#

Glossary

ADB	Asian Development Bank
APWS	Asia-Pacific Water Summit
APWF	Asia-Pacific Water Forum
DRR	Disaster risk reduction
GCF	Green Climate Fund
GWP	Global Water Partnership
HELP	High-level Experts and Leaders Panel on Water and Disasters
IPCC	Intergovernmental Panel on Climate Change
IWMI	International Water Management Institute
IWRM	Integrated water resource management
JICA	Japan International Cooperation Agency
MLIT	Ministry of Land, Infrastructure, Transport and Tourism
SDGs	Sustainable Development Goals
UNEP	UN Environment Programme
UNESCO	UN Educational, Scientific and Cultural Organization
WASH	Water, sanitation, and hygiene