



United Nations



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Young Professionals in Foreign Policy (YFPF) Tokyo x UN 2023 Water Conference Policy Brief

YFPF Tokyo recognizes the imperative of increased intervention and cooperation to safeguard against harm to global water resources and ecosystems, both now and for future generations, and believes that the impact of youth voices and young leaders in water issues must be amplified. Ahead of the UN 2023 Water Conference, the YFPF Tokyo x UN 2023 Water Conference Taskforce was formed through an international voluntary application process with the goal of knowledge-sharing, peer-learning, and preparation for leadership in the water sector.

YFPF Tokyo was granted Special Accreditation as a Stakeholder with Observer status to the UN 2023 Water Conference in accordance with the provisions set forth in Annex II of [A/RES/75/212](#) during the final application round held in December 2022 and a group of nine Taskforce members were nominated as representatives of YFPF Tokyo to attend the UN 2023 Water Conference held at United Nations Headquarters in New York, 22-24 March 2023.

The *Young Professionals in Foreign Policy (YFPF) Tokyo x 2023 UN Water Conference Policy Brief* is a key output of the Taskforce and serves as a record of their collective efforts to prepare for and create input into the UN 2023 Water Conference. Out of the thematic areas defined by the 2023 UN Water Conference Agenda, the YFPF Tokyo x UN 2023 Water Conference Taskforce chose to focus on three main themes within the Asia-Pacific region: I.) Water and Health, II.) Water for Development, and III.) Water for Climate Resilience and Environment. For the protection of global water resources and ecosystems, the advancement of youth leadership in the water sector, and a sustainable future for all, the YFPF Tokyo x UN 2023 Water Conference Taskforce advocates for increased intervention and cooperation from the local to global levels, with an inclusive and whole-of-society approach.

I. Water and Health

Upholding gender equality and maintaining gender rights is imperative when it comes to the right of enjoyment to water, sanitation and hygiene (OHCHR 2016). However, studies show that most of the time women and men have differing access and usage, education about the subject of water as well hygiene and sanitation in general (ibid.). This is very much prevalent in the Asia Pacific region.

WASH stands for Water, Sanitation and Hygiene, the latter of which are fundamental human rights, and without them, a person's 'well-being, dignity and opportunities' are gravely jeopardized, especially when it comes to women and girls (UN Water n.d.). WASH is a crucial part of the Sustainable Development

Goals (SDGs) (ibid.). Furthermore, unsafe and contaminated water coupled with lack of sanitation and hygiene leads to various health risks (WHO n.d.).

Gender Inclusion and Equality Through WASH

Both men and women have a role to play when it comes to WASH. Men predominantly dominate this sector, however, it is women who are mostly exposed to WASH due to their needs and caregiving duties; which is why the focus is very much shifted towards them in this regard.

Whilst focusing on women and girls who live in less developed or developing countries in the Asia Pacific, they face a bleak reality. Unfortunately, women and girls are exposed to bigotry all throughout their lifecycle when it comes to gender inequity in accessing water and sanitation, that is from a tender age up until their mature years. At infancy stage, females are exposed to toxins through contaminated water, and during their puberty years, females endure stigmatized menstruation as well as intense pressure to drop out of school as a result of their menstruation. As women approach adulthood and parenthood, they may suffer from economic inequity, mental stress, gender-based violence and can become susceptible to meager quality of water. Regrettably, women who suffer from illness find it somewhat difficult to access healthcare and sanitation frameworks whereas elderly women are excluded altogether from decision-making. (OHCHR 2016)

All genders have a role to play when it comes to upholding WASH practices and in turn, implementing them. However, women's perceptions and opinions are imperative and to be taken account of when it comes to WASH improvement due to many reasons. First and foremost, females are the 'main users of health services and the primary caregivers for family members,' where in all such aspects, water plays a fundamental role. Moreover, they have particular needs in menstruation, pregnancy and childbirth.

Some persistent challenges in gender inclusion and equality through WASH are barriers to access, representation, and gender-inclusive policy-making in WASH; gender-based violence in WASH settings; and the impact of cultural norms on WASH practices and gender equality. Closing inequality gaps in the accessibility, quality and availability of water, sanitation and hygiene should be at the heart of government funding and planning strategies (UNICEF, 2019). Solutions and strategies for promoting gender equality in WASH must place women and girls in all their diversity at the center of WASH decision-making processes; seek innovative approaches to addressing gender-specific WASH needs, including the private and third sectors, with a whole-of-society approach; and emphasize the role of education and awareness-raising in promoting gender rights and WASH.

Drinking Water Accessibility to Vulnerable Populations

Access to safe drinking water is vital to human health and well-being. The right to access clean and safe drinking water is acknowledged by the United Nations as a fundamental human right (Mao, 2022) but according to UNICEF (2019), 1 in 3 people do not have access to drinking water and billions of people around the world lack access to safely managed drinking water services.

The most fundamental need for the health and well-being of all humans is access to clean water. Due to urbanization and rapid population expansion, water demand is increasing and without a quadrupling of development, billions of people will not have access to these fundamental services by 2030 (UN, 2022). Irrespective of Asia's economic and development successes, some 300 million people in Asia and the Pacific (which house 60% of the world's population) still lack access to basic water services like safe drinking water (ADB, 2020). In the East Asia and Pacific region, access to water has increased dramatically recently, yet an estimated 116 million people still lack adequate drinking water (UNICEF, 2022).

Due to South Asia's high susceptibility to disasters, millions of people are displaced and suffer every year from natural disasters like floods and cyclones, especially children and vulnerable groups. The lack of access to clean and adequate drinking water worsens the situation for the population affected by disasters and results in more water-borne diseases (UNICEF, 2022).

Key recommendations for government leaders focusing on drinking water accessibility to vulnerable populations are: 1.) to protect the right to clean water, and companies should be accountable for reporting, mitigating, and fixing their own impacts on water systems (Geall, 2019); and 2.) to ensure that poor and vulnerable groups have access to sustainable and accessible water services, tax-based public subsidies, well-designed water tariffs, and smart utilization of aid flows to the water sector can all help (OECD, 2020).

II. Water for Development

Groundwater Usage for Development

Development in Asia faces two main problems: the destruction of the water cycle due to dam control and the exhaustion and pollution of groundwater. Here, we focus on the latter, groundwater, because it is a major problem that is often overlooked, even though it is closely related to people's lives. There are actually many industries that use groundwater: manufacturing, mining, oil and gas, energy generation, engineering, construction, and so on. Unplanned groundwater withdrawals by these industries have had unintended consequences in the surrounding areas, including extreme lowering of groundwater levels, groundwater contamination, and land subsidence, all of which cause distress to the surrounding population. It is, therefore, necessary to commit to regulations that can be better responsive to these issues.

Research on groundwater flow is urgently needed in every country. This is because groundwater flow is quite difficult to identify. For example, a Japanese research team is studying groundwater inflow into Inle Lake in Myanmar, but this study requires the development of a mathematical model. Without such a study, even the increase or decrease of surface water cannot be adequately predicted. Compared to the study of land, water, especially groundwater and undersea water, is still a mystery.

For problem areas, the impact of each industry on groundwater should be quantified. This is because overexploitation and improper allocation of groundwater resources need to be addressed. It would be advisable to consider implementing a metered (pay-as-you-go) water supply system or a double billing system for industries that consume excessive amounts of groundwater resources. Of course, not all industries should refrain from using groundwater immediately; in some cases, groundwater use can reduce stress on surface water resources and free them up for other users. In addition, the development of small reservoirs on ground could be an alternative to reduce the stress on groundwater resources.

Policy makers should link groundwater conservation and disaster prevention through water monitoring with ICT technology and the development and maintenance of watershed conservation forests. A fresh example of this was appealed by the mayor of Kumamoto City, Japan, the host city of the 4th Asia-Pacific Water Summit in 2022.

Water for Sustainable Agriculture

The two main issues of focus in the water for sustainable agriculture section are 1.) a lack of sufficient water for agriculture, and 2.) water runoff contamination. These issues are interrelated, as contamination of water runoff further restricts water resources for sustainable agriculture. There is insufficient regulation on agricultural runoff pollution and contamination of ephemeral streams, but this contamination of water affects people's livelihoods leading to potential physical or mental illnesses or genetic deformities. Focusing on water runoff since supply of water for runoff depends on specific country and climate conditions.

Ephemeral streams that connect to any bodies of water, or, are entering groundwater supplies are thereby infiltrating main water supplies. Increasing temperatures and reduced availability of water, means that these ephemeral streams will lead to a higher concentration of toxic chemicals (animal waste, CO2 emissions, etc.) and pollutants in reduced water supplies. Drought concerns are a major concern, but reducing pesticides and other chemicals could lead to significantly lower yields. All these factors point to a major difficulty in balancing human food needs with water utilization, and amplified inequalities with rural and poorer communities will be disproportionately affected.

Countries that do not have departments like the Environmental Protection Agency (EPA) in the United States may have little regulation of water contamination from agriculture or transparent and accessible data on what is going into their water supplies. The United States itself did not commit to cleaning its rivers until the Clean Waters Act of 1977 and the Water Quality Act of 1987. Still, even in the United States, it is difficult to regulate federal waters. The scale of the need for regulation and monitoring of data on water runoff contamination suggests promising potential for knowledge transfer between the United States and other countries within the Asia-Pacific region.

Due to the aforementioned issues, the UN should increase focus on locally grounded, context focused technical assistance and education to improve the water usage practice on the ground in developing countries. To ensure that technical assistance is respectful of local beliefs and practices, the UN could

include a provision for a 'cool off' period for arriving experts to build-in time for instruction on local beliefs and context by local guides. The technical assistance could be focused on hand training for water conservation of agricultural practices and dealing with runoff and pretreatment. Education on evaluating groundwater and if there is something wrong with it can also be crucial to saving lives and prevent communal health degradation. This initiative should be partnered with people and organizations already doing water training and education on the ground and can be subsumed into ongoing UN SDG initiatives, with ongoing cycles of learning and evaluation, transparency and accountability, and including local communities to support an atmosphere of trust in the adoption and full appreciation of best practices.

Valuing Water Resources

The valuing of water resources is a complex and challenging area, as there are myriad interpretations of the 'value' of water across industries and sectors. In energy, business and industry water productivity is defined in terms of profit or value of production per volume ($\$/m^3$); water use intensity, defined as volume to produce a unit of value added ($m^3/\$$); water use efficiency, defined as value added per volume ($\$/m^3$); and the change in water use efficiency over time (SDG Indicator 6.4.1). Considering hydraulic infrastructure, in particular, the valuation of costs and benefits are not well developed, standardized or widely applied. Societal benefits delivered are often unquantified, costs - particularly external costs - are not adequately accounted for, options are often not appropriately valued and compared, and hydrological data are often poor and outdated.

Then, in food and agriculture sectors, value may be considered in terms of benefits including: improving nutrition, accommodating shifts in consumption patterns, generating employment and providing livelihood resilience especially for smallholder farmers, contributing to alleviating poverty and revitalizing rural economies, and supporting climate change mitigation and adaptation. The food security value of water is high but rarely quantified and is often a political imperative irrespective of other values.

Cultural contexts also play an important role in the valuing of water resources, as water can hold an appeal to people for spiritual reasons, through its scenic beauty, or because of its importance for wildlife or recreation, or combinations of the above. There is a close relationship between religion or faith and ethics. Narratives originating from regions characterized by water scarcity often feature illustrations of lawful and morally correct living beings, often as characterized by the local religion, rewarded with rainfall and access to water. By contrast, the modern economic conception of water can be characterized by its abstraction from social, cultural and religious contexts. In terms of understanding the 'value' of water, it is important and impactful to examine and understand all pertinent perspectives, including non-economic perspectives.

Considering water supply for sanitation and hygiene, it is important to examine affordability from the perspective of disadvantaged groups, based on their income, their location and the socio-economic challenges they face. It has been estimated that achieving universal access to safe drinking water and sanitation (SDG Targets 6.1 and 6.2) in 140 low- and middle-income countries would cost approximately US\$1.7 trillion from 2016 to 2030, or US\$114 billion per year. A direct extension of access to WASH

services not only improves educational opportunities and workforce productivity, but also contributes to a life of dignity and equality. WASH services also indirectly add value in the form of a healthier environment.

Looking at these issues with a focus on the Asia-Pacific regional situation, there are three points that demand greater focus: 1.) unsustainable water withdrawals; 2.) increased water scarcity and value due to the impacts of climate change; and 3.) the need to tackle water pollution and promote water efficiency, including from the industrial sector. The value of water is different within countries and between industrial sectors, making it difficult to integrate different opinions and to create uniform criteria. In many areas of the Asia-Pacific, the current water price might be undervalued, meaning full-cost allocation and additional value of water such as economic, sociocultural and environmental value are ignored. It is, therefore, necessary to make a comprehensive quantified evaluation system so that the return from investments will be visible.

In order to integrate indigenous knowledge with cutting-edge scientific evidence, the UN water department should prepare for the platform to share different stakeholders' knowledge and cases of best practices in an accessible and inclusive manner; lead the negotiation between respective stakeholders by setting one-on-one meetings and comprehensive meetings; and create water quality valuation items. Respective stakeholders would be allowed to give priority to each item because their focus points and essential value of water is different. In parallel, government leaders and the regional organizations such as ASEAN should take a proactive integrated economic approach to water services, given that water is limited and will become a more precious resource in the future due to climate change and rainfall pattern changes. Water services, when considered as public goods, would be provided at a low cost so that more people could have access. Considering the Water Efficient Technologies (IWET) project in Bangladesh as a best case, introduction of climate-adaptive and progressive tariff mechanisms if the amount of water consumption goes beyond some conditions should also be considered.

III. Water for Climate Resilience and Environment

Climate Resilience and Water Financing

The importance of water for climate resilience and the impact of leveraging fit-for-purpose water financing mechanisms cannot be overstated. In the Asia-Pacific region, countries should deepen and expand development in all areas of vulnerability through building regional dialogues and funding support on best practices. In the area of advanced sewage treatment to prepare for the global shortage of clean water, identified best practices include: 1.) Singapore's 'NEWater' water recycling project which can produce drinkable water from sewage water; 2.) California's 'Groundwater Replenishment System' in Orange county which can also produce drinkable water from sewage; and 3.) 'Recycled Water Sewage Project' in Makuhari New City Area where recycled water is used for toilets, fountains and other 'gray water' areas. These excellent approaches in Singapore, the United States, and India have much to offer one another and other Asia-Pacific countries through dialogue and exchange.

Additionally, in the case of Japan, a country which has suffered from many water-related disasters since ancient times, multiple innovations and countermeasures have not only been developed, but also tested extensively and adapted over time. More avenues for sharing these water disaster countermeasures with the rest of the world, especially with vulnerable countries that suffer from water-related disasters, should be developed. Identified best practices in countermeasures in Japan are: 1.) the Wajyu embankment built in the Edo period near the Kiso three rivers area in Japan's Tokai region where embankments surround and protect the area where people live; 2.) the Two-line embankment, estimated to have been built in 1603 in Nobeoka, Miyazaki Prefecture; and 3.) the high-standard embankments installed in low-lying areas close to rivers and around where housing is concentrated that have been created more recently. By studying these historical and modern countermeasures, it is possible to gain valuable insights into how different countermeasures might be applied in different contexts, at different levels of financial investment, and with different materials, but ensuring a sustainable and reliable outcome.

In order to take appropriate measures against water-related disasters, countries - especially countries vulnerable to climate change and water disasters, should prepare comprehensive hazard maps that are accessible, age appropriate, and translated into all local languages. An adaptive approach to hazard mapping should include information on 1.) real-time risk locations provided through flood simulation with the aim of properly developing infrastructure; 2.) deployment of elaborate flood simulation technical skills and data-collection at each location; and 3.) training and support for technical skills and data-collection experts to share their knowledge with countries and communities for capacity-building.

Water and Biodiversity Conservation

Water and biodiversity is a critical concern today, as climate change and economic development practices have eroded natural landscapes and waterways in search of resources. To safeguard water and biodiversity now and into the future, more efforts are needed for conservation. Conservation refers to the sustainable and responsible management of resources to reduce impact and preserve vital natural resources for future generations. Governments have established national parks and protected areas to conserve waterways and biodiversity, and efforts are underway to promote further sustainable development and reduce environmental impact. Additionally, local and international organizations work towards preserving unique flora and fauna through conservation and research initiatives.

Countries should expand environmental education in the school curriculum for students to learn and act upon the importance of biodiversity conservation. Sweden's environmental education has been identified as an example of best practice. Furthermore, youth should be involved in the consultation, decision-making, and implementation processes regarding biodiversity. Political Youth groups in Norway have been identified as an example of best practice in this regard. All major political parties in Norway have their own youth party organization. While these parties work mostly independently and differ in terms of political priorities and topics, they are a predominant source of meaningful and direct representation of youth issues and priorities to government leaders.

Local communities, BIPOC and indigenous communities, and other underrepresented groups should be involved in the consultation, decision-making, and implementation processes regarding biodiversity. By fighting for their lands, indigenous peoples are fighting to save the planet. Although they comprise less than 5% of the world population, indigenous peoples protect 80% of the earth's biodiversity in the forests, deserts, grasslands, and marine environment. In Okinawa Island of Japan, the Japanese government promotes a plan to landfill the shallow water of coral reefs and sea-grass beds in Henoko and Oura Bay, to build a new military airbase for the United States Marine Corps. This area is rich in biodiversity and an important feeding habitat of dugong, which is one of the most endangered mammals in Japan.

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