Contribution by Japan to the Concept Paper for the Interactive Dialogue at the 2026 United Nations Water Conference

I. Introduction

- Earth is a water planet, and water circulates without remaining in one place. This cycle continues uninterrupted, forming the Earth's lifeblood, shaping its landscape and nurturing its natural environment.
- While water is a bountiful resource, it can also threaten human lives and affluence when water-related disasters occur. Water, in its various forms, is deeply linked to various social issues, including climate change, disasters, ecosystems, public health, and poverty.
- We need to transform our society into one that is resilient, sustainable, and inclusive. This can be achieved by strengthening action for water sustainability. This transformation should proceed through multi-stakeholder partnerships with open, transparent, participatory, and collaborative processes.[1]
- Specifically, resilience involves efforts to reduce water-related disaster risk on a cross-sectoral, whole-of-river basin and aquifer basis. Sustainability involves placing water at the center of the political agenda, promoting climate change mitigation measures while utilizing renewable and low-emission energy sources in conjunction with adaptation measures and strategies for disaster risk reduction and infrastructure development. Sustainability will also promote green infrastructure that can provide mitigation and adaptation benefits for achieving carbon-neutral societies in harmony with nature and biodiversity conservation. Inclusiveness will encourage every party concerned in both public and private sectors to be involved and closely cooperate in activities to address water-related issues towards a quality-oriented society.
- There is an urgent need for specific action items followed by collaboration among stakeholders to realize the quality-oriented social transformation. [2]

II. Status and trends

- According to the United Nations World Water Development Report 2025, 25 countries, accounting for one-quarter of the world's population, face "extremely high" water stress each year. Approximately 4 billion people, or half of the world's population, experience severe water shortages at least part of the year. Climate change is increasing the seasonal variability and uncertainty of water resources in most regions. Pollution, land and ecosystem degradation, and natural disasters could further undermine water availability.
- Water-related disasters have intensified owing to climate change. Nine out of 10 disasters triggered by natural hazards during the past decade were related to water[3]. Water-related

[1] See the Kumamoto Declaration.

[2] See the Chair's Summary of the 4th Asia-Pacific Water Summit.

[3] See UN News, "Water-related hazards dominate list of 10 most destructive disasters", 23 July 2021. Available at https://news.un.org/en/story/2021/07/1096302.

disaster deaths have more than doubled in the past 10 years. Over 90 per cent of disaster-affected people were affected by water-related disasters that also accounted for nearly 95 per cent of infrastructure loss and damage[4]. These disasters do not only cause direct damage to human lives, infrastructure, and facilities, but also cause serious problems in water supply and sanitation, threatening the lives of people who are particularly vulnerable to climate change. There is a close nexus between the climate emergency and water-related disasters.

III. Challenges and emerging issues

- The world faces a variety of social challenges, including climate change, disasters, public health, and poverty, all of which are deeply connected to water.
- With just five years remaining until the target year for the SDGs, it is necessary to take concrete steps to achieve the goals.
- SDG 6's targets are interrelated and synergistic with the other SDGs. Structurally, the SDGs can be categorized as follows: I. Natural Environment (SDGs 13, 14, and 15); II. Artificial Environment (SDGs 9, 11, and 12); III. Water-Food-Energy Nexus (SDGs 2, 6, and 7); IV. Social Systems (SDGs 1, 5, 10, and 16); and V. Quality of Life (SDGs 3, 4, and 8). Water is involved in each of these issues.
- Therefore, from the perspective of water, the challenge is to derive integrated solutions, such as "reconciling conflicts of interest" and "creating synergies" within each SDG and between SDGs.

IV. Solutions

- As Japan co-chaired ID3 "Water for Climate, Resilience and Environment" at the previous UN Water Conference in 2023, we present solutions based on the outcomes of ID3. These solutions focus primarily on the theme of the 2026 UN Water Conference, “Water for the Planet,” from the perspective of the SDG 6 Global Acceleration Framework.

1. Financing

- Given the off-track status of SDGs, drastically increase total investment in the water sector. Direct and indirect benefit of water investment should be numerically articulated to convince financial institutions and taxpayers and attract investors by developing and standardizing the analytic method for this purpose. Specific recommendations include: encourage cost sharing and pooled resources, support water security actions from multiple funding sources, and ensure that investment and management of water-related infrastructure and technologies are designed to be multi-purpose.
- To mobilize private investment, it is necessary to clarify the respective responsibilities of government, private sector, and local communities, introduce appropriate regulations, and expand financial assistance and incentives. Japan's experience has shown that the following approaches are effective, and there are also examples of urban development

[4] See Sendai Framework Monitor. Available at https://sendaimonitor.undrr.org/.

that integrates levee improvement and flood control basin development (Futakotamagawa Rise, Koshigaya Laketown)[5].
1) Regulations and guidance: (e.g., requiring private residential development to incorporate disaster prevention reservoirs).
2) Subsidies and tax incentives: (e.g., collective relocation, rainwater infiltration storage facilities).
3) Relaxation of floor area ratios: (e.g., providing evacuation shelters and emergency supplies within buildings.)
4) Community participation: (e.g., cooperation from flood defense corps and sluice gate operators.)

- Reducing risk and building resilience against water-related disasters are fundamental to sustainable development. This is also stated in the Sendai Framework for Disaster Risk Reduction. In order to prevent damage from floods, it is essential to raise awareness of the importance of proactive risk reduction rather than post-event measures.

2. Data and information

- We cannot improve what we cannot measure. The collection, archiving, and sharing of water data and information, including those of water-related risks, such as flood, water resources, water supply and sanitation, should be promoted through establishing appropriate frameworks and organizations, as well as prioritized investment. Transboundary information sharing is particularly important. Building global observatories should be supported by the region.
- Key messages from the ID3 Co-Chairs of the 2023 UN Water Conference emphasize that water can and should play a critical role to build a society that is more resilient and adaptive to both sudden and slow onset disturbances. Decisions by leaders should be both evidence-based and timely. In this context, science and technology play a crucial role. Through the following three actions, science and technology are positioned as a “game-changer” for building resilient societies.

  1) Promote water cycle consilience by accelerating the Open Science policy, particularly focusing on observation, modelling, and data integration; 2) Foster "facilitators," that is, catalytic individuals who can lead the way toward resolving problems by providing professional advice on-site using a broad range of scientific and indigenous knowledge; and 3) Work together across disciplines and sectors, and among different levels, while taking an end-to-end approach.

- Slow-onset changes should be given special attention. Yearly and seasonal hydrological patterns and those of water demand are changing quickly due to climate change and other

[5] See World bank document: Learning from Japan’s Experience in Integrated Urban Flood Risk Management

socioeconomic changes. Those changes should be addressed by adaptive policies, as well as resilient and green infrastructure. Water resource management should be given higher attention.

- As shown in the action workflow (a flow for resolving water-related issues (floods, droughts, glacier melting, ecosystem loss) caused by climate change) proposed by the co-chairs at the 2023 United Nations Water Conference ID3, countermeasures for water-related disasters should be based on identifying where risks exist, quantifying their severity, and visualizing them on maps. The numerical risk simulation will be particularly essential, as climate change is causing heavy rains in areas where it rarely rains while increasing the frequency of record-breaking heavy rains in other areas.
- The numerical risk simulation will require inputting precipitation data, terrain elevation data, land use data, river discharge data, and so on. Much of this data is now available inexpensively from satellite observations with increased data accuracy, in contrast with data from traditional expensive ground-based observations.
- However, the numerical risk simulation will not run only with satellite observation data. The input of some ground-based observation data will still be necessary. And the operation will require know-how in terms of technical adjustment and data adjustment. Japan is implementing flood risk mapping projects using satellite observation data in cooperation with relevant domestic and international organizations. The purpose is to help countries with severe river flooding to map flood damage risks and to provide such countries with the hands-on training necessary for the mapping.

3. Capacity development

- If a donor country only provides manuals or pushes its ways of doing to a target country, capacity development will not work out. Capacity development, in this case, should start with consideration of the culture and characteristics of the target country or organization, followed by a collaboration between tech people from the donor country and technical experts from the target country in tackling the challenge together.
- Japan has provided this approach, through Japan International Cooperation Agency (JICA), for many years to its capacity development projects in target countries. For example, with this approach, Japan managed to help improve Cambodia's water supply condition from the worst level right after the civil war to a standard comparable to that in Japan in only 10 to 15 years. This success is known as the "Miracle of Phnom Penh."
- With the continued application of this approach, Japan is willing to contribute to capacity development in countries that need solutions.
- Resolving water issues requires a broad, interdisciplinary approach, and we need to develop the human resources necessary to support the leaders who will implement this.

4. Innovation (including not only technology but also practical initiatives)

- Depending on the combination of technologies, preventive measures for water-related disasters can double as climate change mitigation measures. Promoting projects utilizing “hybrid technologies” that contribute to both adaptation and mitigation is likely to facilitate more efficient funding than focusing only on adaptation or only on mitigation. Examples of such combinations are as follows.

(1) Dam improvement projects (power generation dams, water utilization dams, and multi-purpose dams) can be as follows. While an existing dam operates, works of dam height raising and discharge facility reinforcement proceed as a mitigation measure. At the same time, the dam receives a flood control system supported by observation and prediction technologies as an adaptation measure.

(2) Constructing / rehabilitating irrigation and drainage facilities and making effective use of the rainfall storage function provided by paddy fields can contribute to reducing flooding damage in rural areas as climate change adaptation. In addition, fostering small hydroelectric power generation installed to irrigation and drainage facilities and introducing agricultural water management systems with ICT technology can realize climate change mitigation. Knowledge and experience of these measures can be shared through platforms such as the International Network for Water and Ecosystem in Paddy Fields (INWEPF).

(3) The water supply and sewerage technologies −including seawater desalination, the use of reclaimed water for non-potable purposes, rainwater storage and infiltration through public-private partnerships, and real-time dissemination of information on water-related disaster risks —will contribute to climate change adaptation. In addition, the effective use of previously unused sewage sludge for biomass power generation, increasing renewable energy production, will contribute to climate change mitigation. Furthermore, the use of drones for the inspection and diagnosis of underground pipelines and waterways enhances safety, while AI technologies that predict the deterioration of underground infrastructure can contribute to more efficient maintenance.

(4) Coastal forest improvement projects, wetland improvement projects, green spaces improvement projects, and forest improvement projects are part of ecosystem-based disaster risk reduction. They can contribute to adaptation, mitigation, and ecosystem conservation.

5. Governance

- Creating a trans-sectoral, stakeholder-inclusive and fully transparent governance is key. The concept of valuing water should be embedded in the minds and actions of all stakeholders to promote behavioral change and facilitate holistic collaboration by all.

- Water can broadly contribute to global socio-economic advancement by helping to build peace and regional stability. For this purpose, enhance the leaders' awareness that cooperation on water-related disaster risk reduction, water resource management, water supply and wastewater management, particularly on water emergencies, such as disasters, can be an agent for peace and promote effective actions; promote the use of "Principles to Foster Peace before, during, and after Water-related Disasters" which was launched at the APWS; use traditional technologies such as cylindrical water distributers and a locally nurtured culture of peacefully sharing water in society.
- To encourage broad engagement and promote collaboration among stakeholders in the water sector, it is important to establish a legal framework for such collaboration and to ensure that the government supports the implementation of initiatives and plans proposed through these collaborative efforts.
- In Japan, the Basic Act on Water Cycle was enacted for comprehensive and integrative management of the water cycle and the Headquarters for Water-Cycle Policy, chaired by the Prime Minister, with all other ministers of state, was established. The law stipulates the Basic Plan on Water Cycle. The plan emphasizes the deployment of river basin management which encourages collaboration among multi-stakeholders such as governments, public institutions, experts, business operators, organizations, and residents.
- Another law has defined the legal basis for the river basin council which consists of all stakeholders involved in discussing flood prevention measures and stipulates the linkage between the council and the national flood control plan.
- Furthermore, Japan aims to promote comprehensive river basin water management that not only addresses flood control but also promotes water use and environmental conservation, in order to "reconcile conflicts of interest" and "create synergistic effects." As an example of comprehensive river basin water management in Japan, in addition to the initiative introduced in Ⅳ.4(1) above to maximize flood control and power generation functions by improving and upgrading the operation of existing dams, there is also an initiative to conserve and restore ecosystems in conjunction with the development of flood control retarding basins.
- In addition, Japan has a proven track record of low non-revenue water ratio, achieving safe and efficient water supply to every corner of the nation. The relevant knowledge and experiences in policy, management, and human resource development related to this can be proudly shared internationally as a public good.

V. **Recommendations and conclusions**

- Water-related resilience and sound ecosystems will build on a considerable amount of investment and the implementation of individual, specific projects. From this perspective, governments will be much more likely to be the principal investor than private entities

because it is the society that will enjoy the benefits of water-related resilience and sound ecosystems and because few projects will directly bring about monetary profits.

- Therefore, using ideas presented in Section Ⅳ, the member states should make efforts to raise awareness of the need for investment in water resilience and sound ecosystems among high-level officials of each country, media, and taxpayers.
  In this way, while it is assumed that the government will play a major role as a base, in order to mobilize private investment as well, it would also be effective to add appropriate regulations and expand incentives such as subsidies and tax systems to encourage this.
- Japan has already set a contribution, in line with its ideas for Section Ⅳ, at the 4th Asia-Pacific Water Summit by announcing the Kumamoto Initiative for Water, Japan’s commitment to providing 500 billion yen-worth financial support over the next five years.
- Many countries and international organizations have announced initiatives and action plans to achieve the goals of the Water Action Decade, but in order to achieve these goals, it is important to continue actions to realize these initiatives and plans for years until the target of 2028.
- Furthermore, Japan has already shared the idea of the Kumamoto Initiative for Water with several countries and international organizations, and is implementing several joint projects in collaboration with them, with the aim of realizing the Kumamoto Initiative for Water as not only a Japanese but also a global initiative.
- Japan has also proposed the International Workshop Agreement on Hydrological Risks (IWA50) under the ISO to promote the implementation of the action workflow proposed by the ID3 co-chairs at the 2023 UN Water Conference. This initiative will encourage efforts to build on the outcomes of the 2023 conference and continue efforts through to the target year of 2028 and beyond. Japan's efforts like these are also a major contribution to the Water Action Agenda.
- In addition, it is necessary to further promote cross-sectoral collaboration. To this end, the thematic discussions at the 2026 UN Water Conference should include experts from various disciplines in the sessions to maximize the synergistic effects of the SDGs. It is hoped that integrated solutions will be proposed at the 2026 UN Water Conference and implemented by the 2028 UN Water Conference.
- In order for the international community to support concrete and sustained efforts toward 2028 and beyond, member countries should promote the sharing of discussions at this dialogue in future international processes and ensure that they continue to be treated as an important theme.

Ⅵ. **Guiding questions**

- Given that the targets of SDG 6 are interrelated and synergistic with the other SDGs, how can SDG 6 contribute to the achievement of the other SDGs?

- What actions can governments take to increase their budget allocation for water-related disaster risk reduction, water resource management, water supply and wastewater management, given that there are many other critical investment choices?

- When both public and private financing are available for a project of water-related disaster risk reduction, how can the investors from the private sector benefit from the project? How should we combine regulations and incentives such as subsidies in order to mobilize private investment?
- What incentives can be effective for stakeholders to maintain their active engagement in the collaboration?
- What forms should the visualization of the effects of water-related disaster risk reduction projects take so that taxpayers will understand the importance of continued investment in water-related disaster prevention?
- What actions should governments take to popularize efforts of water-related disaster risk reduction such as "Build Back Better," with a view to the mainstreaming of water-related disaster prevention?