

# **Report - AAWC Climate and Water Round-table**

| ☐ Date and Venue: 5-7 November 2024, Seoul, Repub | blic of Korea |
|---|---------------|
|---|---------------|

☐ **Host:** Asia National Assembly Water Consultative Board (AAWC)

☐ Organizers: Asia Water Council (AWC), K-water

☐ Partners: (Ministry) Ministry of Environment of the Republic of Korea

(Institutions) K-eco, KEITI, KOICA, K-EXIM, NIGT, KIST

#### **☐** Main Activities:

- AAWC Climate and Water Round-table (Theme: Water for Shared Prosperity)

- AAWC Board Meeting

- Field Visit & Cultural Activities

### ☐ Program

| Date            | Details   | Note                                    |
|-----------------|---|---|
| 04 Nov<br>(Mon) | Arrival   | Accommodation:<br>Mayfield Hotel, Seoul |
|                 | AAWC Climate and Water Round-ta   | able                                    |
| 05 Nov<br>(Tue) | Registration & Opening  |   |
|                 | AAWC Board Meeting  | Seminar Room 2,<br>National Assembly    |
|                 | [Session 1] AAWC Policy Research  | Tradional 7 (Scombly                    |
|                 | Luncheon (with Deputy Speaker of the National Assembly of Korea)                                    | Sarangjae,<br>National Assembly         |
|                 | [Session 2] Overseas Projects of Korea  | Seminar Room 2,<br>National Assembly    |
|                 | Welcoming Dinner  | Mayfield Hotel                          |
|                 | Field Visit   |   |
| 06 Nov<br>(Wed) | [Field Visit 1] Hanam Union Park  | Hanam City                              |
|                 | [Field Visit 2] Soyang River Dam  | Chuncheon City                          |
|                 | [Cultural Activities] Visit Korean Mart   | Seoul City                              |
| 07 Nov<br>(Thu) | Field Visit & Cultural Activities   |   |
|                 | [Field Visit 3] K-water Han River Basin Head Office   | 0 100                                   |
|                 | [Cultural Activities] Jinkwansa Temple-stay & Visiting Attractions (Royal Palace, Myeongdong, etc.) | Seoul City                              |



### **Session 1. AAWC Policy Research**

| ☐ <b>Date and Time:</b> 5 November 2024, 10:35-12:30                                   |  |  |
|--|--|--|
| ☐ Venue: Seminar Room 2, National Assembly Members' Office Building, Republic of Korea |  |  |
| ☐ Key Participants: International parliamentarians (AAWC members and observers), AWC,  |  |  |
| K-water, Korea Legislation Research Institute  |  |  |

| Time   | Details  |  |  |
|--|--|--|--|
| [Session 1] AAWC Policy Research / Seminar Room 2, National Assembly |  |  |  |
| 10:35-<br>12:30  | Opening: Opening Remark (H.E. Jeoung-ae Han, AAWC President)   |  |  |
|  | Congratulatory Remark (Dr. Jung-ho An, Executive Vice President of K-water)  |  |  |
|  | Commemorative Photo  |  |  |
|  | [Presentation] AAWC Policy Research - 2023 research outcomes(Nepal) and 2024 ongoing research status(Philippines)                  |  |  |
|  | [Discussion] * led by AAWC President - Feedback on the 2023 Policy Research (Nepal) Outcomes - Discussion on the way forward, etc. |  |  |
|  | [Ceremony] - Handover Final Report of Policy Research to the delegation of Nepal   |  |  |
|  | Closing: Closing Remark (H.E. Jeoung-ae Han, AAWC President)   |  |  |

- Opening Remarks: Called for continued attention to policy research contributing to the development of water management legislation in Asian countries and urged active participation in the roundtable.
- Congratulatory Remarks: Congratulated the successful hosting of the Climate and Water Roundtable and committed to joint cooperation between K-water and AWC for addressing Asia's water issues.

### ■ Presentation on Policy Research Outcomes and Progress

- Overview of the 2023 policy research project on Nepal, including a comparative legal analysis between Korea and Nepal, along with recommendations.
- Introduction to the progress and future plans for the 2024 policy research project focusing on the Philippines.

### ■ Discussion Among Participants (Moderated by AAWC President)

Participants provided feedback on the policy research outcomes, proposed future directions, shared country-specific water-related conditions, and discussed the necessity of policy research, etc.



### **Discussion Summary (AAWC Policy Research)**

### Nepal (H.E. Suhang Nembang)

- He expressed gratitude for the policy research and feedback, highlighting the profound impact of climate change on its geography and citizens. Recent disasters, such as glacier melts in Tamihil and monsoon floods in the Gabarnu Gorge, have caused significant suffering for thousands. These events are becoming more frequent and severe, leading to issues like water shortages, food crises, and landslides. Immediate action is crucial for Nepal's sustainable future.
- Proposed the implementation of an Integrated Water Resources Management (IWRM) system to efficiently utilize water across agriculture, industry, and urban areas. Resilient infrastructure to counter climate impacts is also necessary. Nepal is keen to learn from countries like the Netherlands (flood prevention and water-sensitive urban planning), Australia, and South Africa (water-use balancing systems).
- Highlighted the importance of climate resilience, disaster prevention, and sustainable water management funds. Nepal, despite its low carbon emissions, faces severe climate-related challenges and seeks sustained international support.

### Kazakhstan (H.E. Dyussenbay Turganov)

- Kazakhstan is grappling with significant water resource depletion, with 44% of its water resources coming from transboundary sources, necessitating close collaboration with neighboring countries.
- AAWC's research supports Kazakhstan's efforts to develop effective water resource policies, enhance water infrastructure, and preserve ecosystems in response to climate change.
- Kazakhstan is developing new water laws based on scientific and economic mechanisms to prevent future water crises. Plans include building 42 reservoirs and rehabilitating irrigation systems to reduce water loss by 25% by 2030.
- Requested Korea's support for automated systems to monitor Caspian Sea water levels and referenced Korea's expertise in water-saving policies, water treatment facilities, and modern irrigation infrastructure.

#### Philippines (H.E. Romeo S. Momo)

- Policy research focusing on disaster resilience and water management is crucial for the Philippines, given its vulnerability to natural disasters like Super Typhoon Christine, which recently devastated the Bicol region.
- Commended AAWC's research initiatives and called for similar studies in the Philippines to address water shortages, pollution, and climate-related challenges.
- Stressed the importance of implementing IWRM systems supported by a robust legal framework and enforcement mechanisms. The Philippines is eager to adopt Korea's successful water management models.



#### **Uzbekistan (H.E. Boriy Alikhanov)**

- Uzbekistan faces the impacts of climate change, such as rising temperatures, variable rainfall, reduced river flow, and more frequent floods. Seasonal variations in glacial and snowmelt water significantly affect regional water management.
- Proposed an international partnership declaration led by AAWC to promote cross-border ecosystem management and sustainable development. Suggested collaboration with FAO to establish a plant genome center and sustainable crop research institute in Asia.
- Highlighted plans to develop methodologies for measuring climate intensity and introduce agricultural biotechnology to reduce water usage by 30%.

#### Brunei Darussalam (H.E. Daud Bin Jihan)

- Despite abundant water resources, Brunei struggles with challenges from climate change and rising water demand, with high water consumption rates (380 liters/person). Climate change impacts water quality and availability, particularly during droughts.
- Presented the "Brunei Darussalam Water Security Framework 2021–2035," focusing on water balance, efficiency, quality, and governance.
- Emphasized the necessity of policy research and data collection to support long-term climate adaptation and efficient water resource use.

### Kyrgyzstan (H.E. Ulan Primov)

- Addressing global challenges like climate change and population growth requires collaborative solutions for sustainable water access. Parliament plays a crucial role in developing policies and legislation.
- Proposed investments in modernizing water infrastructure, knowledge exchange through international education programs, and developing cross-border water agreements to ensure resource sustainability and conflict prevention.
- Highlighted the need for innovative water purification and recycling technologies to adapt to changing water resource management demands.

#### Lao PDR (H.E. Hongkham Souvannavong)

- Water is a critical resource for agriculture, society, and the economy in Laos. Climate change exacerbates challenges like severe droughts and floods, leading to crop losses and infrastructure damage.
- Laos relies on hydropower, which supports economic growth but has environmental consequences. Regional cooperation and policy research are vital for equitable water distribution and dispute prevention.
- Emphasized the importance of studying the long-term impacts of climate change on water resources to develop resilient infrastructure and effective strategies.



### Cambodia (H.E. Khut Chandara)

- Cambodia has made significant progress in peace, stability, and economic growth, prioritizing climate resilience and water security.
- Highlighted the Cambodian Parliament's role in promoting sustainable water management through legislation and monitoring policy implementation.
- AAWC's policy research provides tailored frameworks to meet specific national needs. Cambodia aims to strengthen partnerships for sustainable water management and climate adaptation.

### **Ukraine (H.E. Dmytro Pryputen)**

- Ukraine faces severe ecological and humanitarian consequences due to war. The destruction of the Kakhovka Hydropower Plant in 2023 caused an environmental disaster, reducing agricultural water supply and impacting food security.
- Ukraine seeks Korean cooperation in rebuilding water and energy infrastructure, such as dams and sustainable water management projects, while addressing climate-related challenges.



### **Session 2. Overseas Projects of Korea**

| ☐ <b>Date and Time:</b> 5 November 2024, 15:00-18:00                                   |
|--|
| ☐ Venue: Seminar Room 2, National Assembly Members' Office Building, Republic of Korea |
| ☐ Key Participants: International parliamentarians (AAWC members and observers)        |
| Ministry of Environment of the Republic of Korea, Embassies, Institutions, etc.        |

| Time   | Details  |  |  |
|--|--|--|--|
| [Session 2] Overseas Projects of Korea / Seminar Room 2, National Assembly |  |  |  |
| 15:00-<br>18:00  | Opening : Opening Remark (H.E. Jeoung-ae Han, AAWC President)  |  |  |
|  | Congratulatory Remark  |  |  |
|  | (H.E. Wan-sup Kim, Minister of Environment of the Republic of Korea)   |  |  |
|  | Commemorative Photo  |  |  |
|  | [Presentations] Sharing the Current Status of Korea's Overseas Projects in Climate and Water Sector  |  |  |
|  | Coffee Break   |  |  |
|  | [Discussion] Recommendation for International Cooperation Strategies and New Business Opportunities (Open to all the participants) * led by AAWC President |  |  |
|  | Closing Remarks (H.E. Jeoung-ae Han, AAWC President)   |  |  |

- Opening Remarks: Stressed the need for joint responses to transboundary challenges such as climate change and water scarcity, and requested active feedback to derive collaboration strategies.
- Congratulatory Remarks: Highlighted the necessity of continued political attention to future water security and shared the Ministry of Environment's efforts to address climate change impacts in Korea.

### ■ Presentations on Korea's Overseas Projects

| Speaker                         | Contents  |
|---------------------------------|---|
| Seo-hyun Lee                    | Overview of ODA projects and international cooperation    |
| Director, MoE                   | efforts, including the GTI platform                       |
| Tai-whan Kim                    | Introduction to major overseas projects (ODA, investment, |
| Senior Manager, K-water         | NDC initiatives, etc.)                                    |
| Song-hee Son                    | Summary of KOICA's key ODA projects (e.g., Laos,          |
| Team Director, KOICA            | Philippines) and activities supporting NDC targets        |
| Yong-jin Jeong                  | Overview of EDCF and future plans for Asia-focused        |
| Director, K-EXIM                | projects  |
| Young-a Cho                     | Explanation of KEITI's key investment areas, cooperation  |
| Lead Research Specialist, KEITI | project directions, and current initiatives               |
| In-beom Song                    | Presentation on NDC goals, GHG projects, and cooperation  |
| Division Manager, K-eco         | programs  |
| Sang-hyup Lee                   | Introduction to NIGT's ongoing projects and IMSWM         |
| President, NIGT                 | (Integrated Municipal Solid Waste Management) initiatives |

<sup>\*</sup>Please refer to the Material Book for the details.



### **Discussion Summary (Overseas Projects of Korea)**

### **Uzbekistan (H.E. Boriy Alikhanov)**

- The presentations were highly engaging. Alongside proposed climate change intensity measurement and innovative agricultural biotechnology, a suggestion was made to develop climate adaptation plans tailored to each country's geographic and climatic conditions, in collaboration with Korean partners.
- Gratitude was expressed for the clear explanation of the National Institute of Green Technology's (NIGT) vision and activities. Uzbekistan proposed cooperation on green hydrogen technologies, including patented innovations, and aims to explore further technical exchanges in this field upon returning to Uzbekistan.

### Korea, National Institute of Green Technology (NIGT) (Mr. Sang-hyup Lee)

- Emphasized the importance of the concept of "tailored solutions" in hydrogen and renewable energy. Korea is focused on building an ecosystem for hydrogen production, storage, transportation, and utilization, while countries like Thailand prioritize finding suitable hydrogen production technologies.
- Though detailed research on Uzbekistan's needs is yet to be conducted, the NIGT expressed strong interest in identifying optimal hydrogen solutions and fostering future collaboration with Uzbekistan.

#### Cambodia (H.E. Khut Chandara)

- Since 1994, Cambodia has completed around 1,200 irrigation systems, with eight large dam projects, including the Dauntrey Dam, supported by the Korean government. Initiated in 2018, the project is set for completion by 2025, with a storage capacity of 168 million m³, providing irrigation for up to 33,000 hectares during the rainy season and 4,500 hectares during the dry season.
- Advanced technologies, such as tunnel construction to minimize environmental damage, were utilized. Cambodia acknowledged Korea's contribution to these innovations, which enhance agriculture, industry, and living standards.
- Post-completion, the dam is expected to serve as a tourism resource. Recognizing potential environmental challenges in tourism development, local governments are preparing preemptive measures. Continuous collaboration was requested to maximize the dam's economic and community value.

### Philippines (H.E. Romeo S. Momo)

- The Angat Dam, a successful multipurpose project by K-water, supplies water to Metro Manila, generates 218MWh of power, and stabilizes 20% of Luzon Island's energy supply. It aligns with the Philippine government's 30-year infrastructure program and contributes to the renewable energy goals of 35% by 2030 and 50% by 2040.



- Philippine lawmakers support projects like Angat Dam, encouraging investments through tax incentives and regulatory easing. They requested further cooperation with Korea for technology transfer, capacity-building programs, and a National Water Management Master Plan to enhance resilience across sectors.

### Lao PDR (H.E. Hongkham Souvannavong)

- K-water, KEITI projects have significantly influenced Laos's legislative framework on flood resilience and disaster preparedness, enabling reliable forecasting and resource allocation.
- Korea Eximbank funded southern Laos water supply facility upgrades, introducing advanced purification technologies and supporting local capacity building. Infrastructure investments have strengthened the water system's resilience to meet current and future demands.

### Kazakhstan (H.E. Dyussenbay Turganov)

- Kazakhstan has mandated automated environmental monitoring systems for major polluters and is developing carbon credit trading systems.
- Highlighted the importance of Caspian Sea level monitoring, a project involving regional collaboration. Gratitude was expressed for continued support and cooperation from Korea.

### Kyrgyzstan (H.E. Ulan Primov)

- Renewable energy projects, including hydropower modernization by K-water, are advancing in Kyrgyzstan, which has untapped hydropower potential.
- Collaborations with Korea include upgrading water treatment facilities in Bishkek and Osh and formulating a National Water Resource Management Plan. These initiatives aim to introduce advanced technologies and foster bilateral cooperation for sustainable development.

### Nepal (H.E. Suhang Nembang)

- Expressed gratitude to organizations actively addressing the climate crisis. Emphasized that tackling climate change requires global cooperation and financial support from international organizations, especially for countries like Nepal. Such support is vital for water resource management, renewable energy development, and strengthening climate resilience.
- Highlighted Nepal's unique geographic and disaster-related vulnerabilities, which make external assistance even more critical. However, noted disappointment at the lack of Nepal-specific projects in the recent discussions.
- Called for stronger collaboration within AAWC to secure and implement projects targeting Nepal's specific needs in the future.



#### Embassy of Nepal in Korea (H.E. Pushpa Raj Bhattarai)

- Shared Nepal's goal of generating over 25,000 MWh of electricity by 2030 to meet domestic demand and avoid energy conflicts with neighboring countries like India and Bangladesh. The government is focusing on various hydropower projects, particularly run-of-river types, but noted that financial constraints have limited their implementation.
- Encouraged investments from companies and institutions to support these initiatives. Suggested integrating tourism opportunities into hydropower projects.
- Stated that the government prioritizes climate crisis response projects, such as waste management systems, aligning these with Nepal's strategic industries: agriculture, energy, tourism, and innovation.
- Estimated that achieving development goals by 2030 would require annual investments of USD 116 billion. Highlighted 30 investment opportunities presented by Nepal in April 2024. Urged AAWC member states and Korean enterprises to consider these opportunities in water resources and other sectors, requesting continued attention and support.

### Brunei Darussalam (H.E. Daud Bin Jihan)

- Brunei possesses abundant water resources but consumes more water compared to neighboring regions. To secure a sustainable future for coming generations, Brunei must develop resilient and predictable solutions. The country is grateful for the support discussed today and hopes for continued assistance tailored to its specific needs.

### Philippine Embassy in Korea (H.E. Maria Theresa Dizon-De Vega)

- Acknowledged ongoing collaboration with K-water on projects like the Angat Dam and wastewater treatment initiatives.
- Requested additional capacity-building programs in partnership with Korea, particularly for graduate-level studies in hydrology and water resource management.

#### **Ukraine (H.E. Dmytro Pryputen)**

- Shared challenges of rebuilding water and energy infrastructure damaged by war, with water losses in some regions reaching 40–60%.
- Welcomed agreements with K-water and KOICA for developing master plans in select cities, while emphasizing the need for international investment to address pressing issues.

### K-water (Mr. Jung-ho An)

- Highlighted the Angat Dam project as a case study in persistence and trust-building, ultimately turning profitable despite early challenges.
- Expressed gratitude for the constructive feedback shared during the session and promised to provide responses and updates to participants.