

Guideline for World Water Challenge 2023



Ministry of Environment



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1. OVERVIEW

The World Water Challenge is an international contest for water solutions. It was created as a special program of the Science and Technology Process in the 7th World Water Forum to identify imminent water problems that the world is facing and to find feasible solutions based on the core value of “Implementation”.

The program is aiming at the identification of science, technology, and policy-based solutions to imminent water problems. Attracting great attention in the 1st edition in 2015 at the 7th World Water Forum, the program has become one of the symbolic platforms of implementation which has been followed up in the Korea International Water Week over the past 8 years, focusing on scientific and technological methods that have contributed to the world’s awareness on the importance of the roles of science and technology in solving water challenges.

This 9th edition of the World Water Challenge is expected to serve its role as an important platform to share **not only innovative scientific/ technological methods but also policy** towards solving the defined water problems around the world and to forge a broad network among the experts and stakeholders in water sector as well as the diverse field of problem owners and solution providers.

2. ROLES OF THE COMMITTEE AND APPLICANTS

A. EXPERT COMMITTEE

(Problem selection) The committee is a group of experts who have long contributed to the advancement in various fields of water. In total, 10 or fewer water challenges are selected based on the discussion between the committee members reflecting their expertise and the current status of regional and global water issues as well as the urgency of each water sector.

(Evaluation) The committee will evaluate the solutions submitted based on the criteria (ref. pg 3) to select the finalists, and the presentations of the finalists will be also evaluated by the committee at the final round.

B. SOLUTION PROVIDER

The Solution provider (the finalists selected by the expert committee) will be invited to present the solutions at the final round of the WWCH. Up to 10 outstanding solution providers will be invited to present their proposals and the best solutions (out of selected finalists) will be awarded.

3. ELIGIBILITY

A. SOLUTION PROVIDER

Anyone (as an individual or on behalf of an organization) who is interested in contributing to resolving water-related challenges with creative/applicable solutions is welcome to submit solutions to WWCH 2023's designated challenges announced.

** Persons (including winners) who participated once (and more) in the previous WWCH are allowed to participate in the WWCH 2023 with different (or updated) subjects and ideas. (Same contents or ideas with the previous contents, will not be considered.)*

4. PROCESS



A. APPLICATION

The solution providers are requested to submit solution proposals through the web-based system (on KIWW Official website) using the provided application form.

- It is strongly recommended that all submitters read carefully and follow the submission instructions indicated on the provided template.
** The official template for WWCH 2023 can be downloaded on the KIWW website*
- Solution proposals can only be submitted via the web-based system. The email submission will not be considered.
** It is requested to create an account first on the sign-up page in order to submit your proposal through the website.*
- Solution proposals must be filled out only in English.
- A graphical abstract visually summarizing your solution (e.g., schematic diagram, picture, animation, etc.) should be submitted as a separate file.
- One person (or organization) can submit more than one proposal with different solutions.
- Please make sure that all materials submitted for entry will not be returned and they might be used or published partially or wholly by the secretariat.

Solutions Submission: Submission due is by **August 27th, 2023.**

** Submitted solution proposals will be evaluated by the expert committee in accordance with the evaluation criteria and up to 10 selected solution providers will be invited to the final round during the KIWW 2023.*

B. EVALUATION CRITERIA for SOLUTIONS

A submission can earn a maximum score of 100 points. Each submission will be judged based on five different criteria as below.

Evaluation Items	Detailed Contents of Evaluation	Score
Comprehension	<ul style="list-style-type: none">○ If the solution provider exactly understands the problem including background, objectives, scope, cause and effect, and impact on the global water issues.	20
Contribution to “Sustainability”	<ul style="list-style-type: none">○ If the solution provider clearly understands the meaning of sustainability.○ If the solution sufficiently demonstrates the contribution to achieving sustainability in development.○ If the solution provider considers possible alternatives in achieving sustainability in the solution.	25
Feasibility	<ul style="list-style-type: none">○ If the solution sufficiently satisfies the requirement of the problem owner in a feasible manner, such as economic, technical, legal, and political feasibility in its implementation.○ If the solution is suitable for the implementation and easy for approaching its circumstance.○ If science and technologies applied to the solution are practically applicable to the field.○ If the local resources are efficiently used in the solution.○ If the solution is designed to have a lasting impact on the problem.	25
Challenge	<ul style="list-style-type: none">○ If the solution effectively helps overcome any challenges and achieve the goals of water issues.○ If the solution provider proposes innovative methods in solving the problem.	15
Impact	<ul style="list-style-type: none">○ If the solution provider well describes the expected effects of the solution on the lives of plants, animals, and human beings.○ If the effects of activities in solving the water problems are obviously described.	15

** Detailed contents of the Evaluation for the final round are subject to change.*

C. FINAL ROUND AND AWARD CEREMONY

Selected solution providers will be invited to the final round of the WWCH. The final presentation and award ceremony will be held on Dec 7-8th during the KIWW 2023.

Winners will be presented with a cash prize and trophy, and they will have the chance to be invited to the WWCH Showcase during the KIWW 2024 and/or the 10th World Water Forum to share their solutions with experts from all around the world.

The infographic is a horizontal banner with a teal-to-blue gradient background. At the top, white text reads 'Winners will be presented with a cash prize and trophy.' Below this, there are two white rounded rectangular boxes. The left box has a blue banner at the top with 'THE BEST' in white. Below the banner, it says '(Presented by the Ministry of Environment, ROK)' in small black text, followed by 'up to 10,000,000 KRW' and '(approx. 7,600 USD)' in blue text. The right box has a teal banner at the top with 'OUTSTANDING' in white. Below the banner, it says '(Presented by President of Korea Water Forum)' in small black text, followed by 'up to 3,000,000 KRW' and '(approx. 2,200 USD)' in teal text.

Award Category	Presented by	Prize Amount (KRW)	Prize Amount (USD)
THE BEST	Ministry of Environment, ROK	up to 10,000,000 KRW	approx. 7,600 USD
OUTSTANDING	President of Korea Water Forum	up to 3,000,000 KRW	approx. 2,200 USD

- The title of the awards and the amount of prize money are subject to change.
- If there is not qualified solutions for the “THE BEST” prize based on the decision of the evaluation committee, there may not be the winner of the year and/or type of award and prize money may change.

5. MAIN TOPIC and CHALLENGE LIST

Main Topic	SDGs links	Challenge
Water and Wastewater Treatment	6.1 & 6.2	(Challenge) Energy-efficient (or Carbon-emission-reducing) Water Recycling and Reuse
		(Key words) water and wastewater treatment technology, safe and clean technology for drinking water, sanitation and health science, sea water desalination, WASH for public health
		(Challenge) Resource Recovery in Water and Wastewater Treatment
		(Key words) Energy generation technology, Nutrients recovery system in water treatment,
Efficient Water Management	6.4	(Challenge) Sustainable Water Resource Management
		(Key words) water-cycle security, groundwater development, policy for integrated water management, governance for transboundary and shared water resources
		(Challenge) Water Management for Water-Energy-Food Nexus
		(Key words) water-energy production technology, Technology for achieving water-energy-food nexus, hydropower technology
Water and Natural Disasters	11.5	(Challenge) Flood/Drought Risk Assessment and Management
		(Key words) flood prevention, climate change scenarios and prediction, drought analysis and management, risk assessment and adaptation, water and disasters, groundwater development
		(Challenge) Depletion and Pollution of Water Caused by Natural Disaster
		(Key words) water related composite hazards, drinking water shortage by earthquake, coastal disaster and tsunami, portable water treatment system
Smart Water Technologies	6.5	(Challenge) ICBM, ICT based Integrated Water Management
		(Key words) water and creative economy, smart water management, smart disaster management system, smart agricultural water management, standardized smart water grid technology, water management information systems, RS and GIS applications for securing water resources, best management practices of IWRM, advanced water governance through multi-directional information system.
Ecosystem and Water	6.6	(Challenge) Nature-based Solutions for Ecological Recovery and Resilient Water Cycle
		(Key words) wetland conservation and restoration, environmental flow, river restoration, ecosystem service
		(Challenge) Ecological Urban Water Cycle under Heavy Rainfall Event
		(Key words) utilizing LID and GI, resilience cities, ecological flow