

November 11th, 2022

Explanatory Note for HELP Message to G20 Leaders

This support document aims to assist stakeholders, media, and parties to have deeper understanding of **HELP message to G20 Leaders**. This document provides further clarity and backgrounds regarding major challenges faced by the G20 and the world and actions to address them. HELP continues its commitment to raise awareness and promote concrete actions to address the issue of water and disasters and assist international community, governments, and stakeholders in mobilizing political will and resources on water and disaster.

Water-related disasters contribute to 94% of natural disasters¹. This staggering number is also evidenced by increasing severity of droughts and floods year-on-year. The year 2022 saw nation-wide catastrophic flooding in Pakistan, record heavy rain in the Republic of Korea² and the worst drought in 500 years in Europe³. Despite the increasing challenges, we lack clear and collective actions in mitigation of water-related risks.

To cope with these challenges, the **HELP Message to G20 Leaders** comes as a set of recommendations from a collective of experts and leaders in challenges related to water and disasters who recognize the urgency to reestablish human relationship with water and prepare for stronger action plans against increased risks. We call on G20 Leaders to recognize and address the significance and accompanying threat of water in our lives and opportunities water transformation will bring about to humanity, through actions as elaborated in the HELP Message to G20 Leaders, focusing on energy and food crisis, peace, pandemic and disaster, economy and market, and climate change.

1. Energy and Food Crisis

Countries can turn current energy and food crisis into opportunities by transforming, nationally and globally, energy mix and food production and consumption, using the concept of water-energy-food nexus to achieve these. Strengthening multilateral cooperation by creating trust and mutual support through transparent regional and global water information system is key. Multilateral cooperation can help leveraging the added economic value of integrated watershed-wide management of water, land, energy, and food. The G20 leadership is vital to address the energy and food crisis issue. We need to integrate efforts beyond sectors and disciplines in order to create resilient, sustainable, inclusive, and cross-sectoral coordination. Cooperation between all stakeholders with ecosystem-based approaches and nature-based solutions by translating words into tangible and meaningful actions is in accordance with global action frameworks of COP27, Sendai Framework, and the UN 2023 Water Conference.

¹ CRED and UNDRR. (2015). *The human cost of natural disasters 2015: a global perspective*.

² Jung, H. and Choi, S.H.. (2022). After deluge, climate change fears make S.Korea prioritise Seoul flood defences. *Reuters*. <https://www.reuters.com/world/asia-pacific/after-deluge-climate-change-fears-make-skorea-prioritise-seoul-flood-defences-2022-08-11/>

³ Jose, R. and Jackson, L. (2022). Sydney records wettest year since 1858 as Australia braces for more floods. *Reuters*. <https://www.reuters.com/world/asia-pacific/sydney-set-smash-rainfall-records-australia-braces-more-floods-2022-10-05/>

Water-related disasters often have wide systemic impacts that require a systemic response, distinct from other types of disasters. For example, local extreme rainfall may disrupt food production in one region which in turn will impact societies hundreds of kilometers away. Water-related disasters may be felt through many economic sectors because of both direct impacts as well as cascading, indirect impacts due to water's strong interconnectedness via supply and value chains as well as infrastructure networks in the domains of water supply, agriculture, energy, and transportation.

Integrated knowledge could take form of collaboration between ministries from different fields to work together as one working group. For example, in developing detailed plan for **Kumamoto Initiative for Water**, the Ministry of Land, Infrastructure, Transport and Tourism collaborates with the Ministry of Education, Culture, Sports, Science and Technology; the Ministry of Agriculture, Forestry and Fisheries; and the Ministry of the Environment. This cross-sectoral cooperative framework can be one strategy in addressing the complex issue of energy and food crisis as well as establishing positive long-term engagement between stakeholders.

2. Peace

Peace and water are interlinked. Throughout history, there are more cases when water-related disaster become opportunities between riparian countries by sharing critical information and extending support to affected neighboring countries. In the past fifty years, water was used as an agent for peace in 1,200 diplomatic events, or two thirds of the 1,800 total events on water. Leaders can position water as strategic means for peace and discuss diplomatic ways to materialize it.

On the other hand, water infrastructure which are vital for human survival may become targets of malicious forces. Construction and repair of water infrastructure in the situation of fragile peace setting is difficult. Facilities and workers related to water and other essential services should be protected from military offense even in wars and conflicts.

During armed conflicts, water-borne disease is aplenty and an example of man-made water-related diseases. Exacerbated by the COVID-19 pandemic, financial resources are scarce and make it difficult for people to fulfill their basic water and sanitation needs in conflict areas. As water-related disasters can further harm international stability and impact people severely, adaptation in the form of international cooperation for peace is necessary.

HELP calls for the G20 leaders to recognize the crucial role of water including groundwater, and its contribution to maintaining/reaching peace and mitigating migration, particularly in the recovery from the COVID-19 crisis. The connecting and catalyzing role of water can assist us in reaching the global sustainable development, climate and disaster risk reduction goals for health, food, poverty reduction, energy, biodiversity/nature, drinking water and sanitation.

The Principles to Foster Peace before, during, and after Water-related Disasters (https://www.wateranddisaster.org/cms310261/wp-content/uploads/2022/08/The-Principles-to-Foster-Peace-before-during-and-after-Water-related-Disasters_final.pdf)

launched by HELP in April, 2022 in collaboration with the Geneva Water Hub and other international partners is a useful reference to understand relations between peace, water, and disasters and give useful suggestions for effective actions. The principles provide a set of recommended actions that parties can take before, during, and after possible water hazards to foster peace among countries and parties. HELP encourages the G20 leaders, countries, and stakeholders to adapt and tailor the principles according to their specific needs.

“A Matter of survival”, the Report of the Global High-Level Panel on Water and Peace (<https://www.genevawaterhub.org/resource/matter-survival>) is a comprehensive document that helps all to understand current status of water and peace and urgent actions to be taken. Some good progress in the efforts of water as an instrument of peace is shown through **Water, Peace, and Security partnership**. A collaboration between the Netherlands Ministry of Foreign Affairs, the German Agency for International Cooperation (GIZ) and a consortium of six partners: IHE Delft (lead partner), World Resources Institute (WRI), Deltares, The Hague Centre for Strategic Studies (HCSS), Wetlands International and International Alert, this partnership applies participatory analysis, capacity building and awareness raising activities in order to support timely, informed, and inclusive actions in regions which are prone to water related conflicts such as Mali, Iraq, and Ethiopia. These actions based on regional needs aims to prevent escalation of water-related tensions into conflict.

3. Pandemic and disasters

The COVID-19 pandemic has disrupted lives and livelihoods of billions of people on earth. All societies were reminded of how fundamental clean water and safe sanitation are for human survival. During the pandemic, water continued providing societies and people with essential power and food under the extremely difficult circumstances of lock downs and its social constraints. At the same time, water-related disasters never stopped under COVID-19. In the recent three years, 600 million people were infected by COVID-19 whereas 300 million people were affected by water-related disasters. Infection by COVID-19 may be abated eventually, but disasters will not.

In response with the COVID-19 pandemic and increasing number of water disasters around the world, HELP has published “HELP Principles to Address Water-related Disaster Risk Reduction under COVID-19” in June 2021. (<https://www.wateranddisaster.org/covid-19/>) This publication is a collaborative effort of 23 experienced organizations comprising governments, international organizations, academic institutes, private sector, and civil society organizations to create a set of principles to manage challenges properly and safely on disaster risk reduction under COVID-19. These principles have been translated into 17 languages, including six official languages of the United Nations.

It is imperative to note that the burden of natural disaster affects people disproportionately based on their cultures, races, ethnicities, and economic backgrounds. Mitigation measures in less developed area differ significantly from more developed areas, and this can create huge disparity in death rates. With this in mind, HELP proposes implementing the perspective of **environmental justice** to observe the way environmental harms disproportionately affect communities. The perspective of environmental justice focuses on how can receive equal

treatment and contribute meaningfully to development, implementation, and application of environmental laws, regulations, and policies people regardless of their race, color, and nationality. This perspective has also been implemented by the government of the United States which committed to advance environmental justice as the centerpiece to protect public health and the environment as well as restoring science to fight against the climate crisis⁴.

4. Economy and market

Economy and markets are common concern of leaders and people. Correcting their volatility, unsustainability, and slumping are on the shoulders of leaders of G20 countries that share 80% of global GDP and three quarters of international trading.

Water is a reliable stabilizer to national and global economy. It keeps securely feeding billions of people. 70% of global water use is for food production. It provides with 17% of total energy and 50% of clean one. Hydropower production rose by 70% in the recent 20 years. On the other hand, water in forms of water related disasters can be major stumbling block to global economy. According to the latest GHD study, water-related risks could cost an estimated GDP loss of \$5.6 trillion to global economy by 2050⁵.

Recent progress of digital transformation and science and technology on climate and weather forecast made possible revolutionary improvement of water management. Existing water infrastructure can produce billions of cash by investing millions for improved water operation through hydropower, irrigation, and disaster risk reduction. Water scarce areas and regions will be reliable provider of agricultural products with less environmental overloading. Strengthened integrated water management and disaster risk reduction will substantially reduce huge disaster losses (up to 15% of GDP) and stimulate economic development. The importance of increasing investments and financing for disaster risk reduction is now widely recognized in international agreements, such as the Sendai Framework for Disaster Risk Reduction. Countries can stimulate market and vitalize the economy by Investing in green and grey infrastructure.

HELP encourages the G20 leaders to include non-state partners to help implementing and financing the G20 Action Agenda. Provision of financial, technological, and capacity building support to developing countries can be a catalyst to improve global economy and market. International assistance for disaster risk reduction has also been recognized by international agreements such as Sendai Framework for Disaster Risk Reduction. International assistance should be directed for both emergency response and reconstruction/rehabilitation as well as disaster prevention and preparedness.

⁴ The White House. (2021). *Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*. Retrieved from <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/>

⁵ GHD. (n.d.). *Aquanomics: The economics of water risk and future resiliency*. <https://aquanomics.ghd.com/index.html>

Financing is oftentimes a challenge in quality infrastructure, involvement of private sectors can be a win-win solution for long-term financing plan. Infrastructure financing through public and private partnership is also initiated by Indonesia's Ministry of Public Works and Housing of Indonesia through scheme known as **Kerjasama Pemerintah dan Badan Usaha (Public Private Partnership)**⁶. There are some projects which are offered for collaboration with private sector including construction of Cikuni-Karawaci toll road and Bogor-Serpong via Parung toll road. Sustainable and resilient infrastructure can act as important backbone for connectivity between regions and increase efficiency, which in turn will positively boost state economy.

5. Climate Change

Climate change adaptation effort can take form of water investments as the most cost-effective adaptation means to immediately deal with the impacts of serious projections of increased flood, droughts, and tsunamis. Due to climate change, recurrent disasters are common theme every year. Disaster risk reduction and mitigation effort requires preparation for the uncertain future. In response to climate change, fundamental shift is needed in the form of how countries prepare for, manage, and response to. HELP encourages G20 leaders to implement mitigation efforts both in the form of policy level and implementation (project) level, such as through water investment.

For instance, investment in water has been pledged by Japan's government which will provide ¥500 billion aid to solve water-related issues in the Asia-Pacific region over the next five years. This investment includes focusing on development of quality infrastructure, improvement in observation data, and evaluation of water-related disaster risks through implementation of Artificial Intelligence/Internet of Things-based forecast and analysis technologies⁷. This is an example of proactive contribution to solve water-related issues, as presented in the **Kumamoto Initiative for Water**, launched in the 4th Asia-Pacific Water Summit in April 2022.

The role of water in emission reduction is also exhibited through a statement released by Water and Climate Leader at COP27 (<https://www.water-climate-coalition.org/news/water-and-climate-leaders-statement-at-cop27/>). At the recent COP27, the Water and Climate Leaders launched a statement urging head of states and government to take a more integrated approach to water and climate action rather than the current fragmented approach where water is often seen as problem instead of "part of the solution" to achieve the Paris Agreement goals. The statement includes three benefits of improved water resources management to climate, namely reducing the impact of climate-induced disasters, enhancing resilience to climate change, and reducing greenhouse gases emissions.

⁶ Ministry of Public Works and Housing of Indonesia. (2020). MARKET SOUNDING INVESTASI 5 PROYEK KERJA SAMA PEMERINTAH DAN BADAN USAHA (KPBU). Retrieved from <https://bpjt.pu.go.id/berita/market-sounding-investasi-5-proyek-kerja-sama-pemerintah-dan-badan-usaha-kpbu>

⁷ The Ministry of Land, Infrastructure, Transport and Tourism. (2022). *Kumamoto Initiative for Water*. Retrieved from <https://www.mlit.go.jp/mizukokudo/mizsei/content/001479358.pdf>