

# Principles on Investment and Financing for Water-related Disaster Risk Reduction



June 2019

High-level Experts and Leaders Panel on Water and Disasters (HELP)

## Foreword

Water is life. Water is also a threat to life. In the past 20 years, disasters directly affected 4.2 billion people, out of which 4.1 billion, or 98% were by water-related disasters. Economic damage is also enormous amounting to 1.8 trillion US dollars globally in the same period<sup>1</sup>.



To cope with this challenge, the High-level Experts and Leaders Panel on Water and Disasters (HELP), the network to mobilize political will for combating water-related disasters, has developed the “Principles on Investment and Financing for Water-related Disaster Risk Reduction” acknowledged by the High-Level Panel on Water<sup>2</sup>. The Principles are in coherence with the Sendai Framework, the Paris Agreement, the New Urban Agenda, as well as the Addis Ababa Action Agenda and contributing to the respective SDGs.

From 2017 to 2019, extensive consultations on earlier drafts of the Principles have taken place in HELP and regional meetings worldwide, inviting over 200 experts from 50 countries. The Principles are supported with a Background Document which provides further rationales, the linkages to the global frameworks, and literature-based factual evidence underpinning the economic cases of financing approaches.

“Water-related disasters” comprise both rapid and slow onset disasters and refer to natural hazards and hydro-meteorological extreme events, such as floods, tsunamis, landslides, debris flows, and droughts. The Principles focus on water-related disasters, because such disasters: i) are directly connected to climate change; ii) occur in most countries, resulting in almost 90% of world top 1,000 disasters<sup>3</sup>; iii) are strongly linked to poverty issues as water-disaster-prone areas are often inhabited by the poor, who are particularly vulnerable against extreme events; and iv) can be drastically mitigated by effectively using a time lag between the inception of disaster event and the arrival of its impact, allowing people to prepare and evacuate, e.g. heavy rain flood or tsunami<sup>4</sup>.

Pro-poor measures against extreme water-related events should be taken. The public nature and the political drive often choose visible short term results, thus deviates from investing in prevention to avoid future losses on the long term. We should consider building resilience as a huge business opportunity, and the chance to incorporate better coastal and urban design and restore degraded lands.

The toll of water-related disasters in lives and livelihoods has been immense. Unless action is taken soon, the combined effects of extreme water phenomena, climate change, growing populations and urbanization will negatively affect society and economy in many regions, spur migrations, and spark conflicts. When adopted globally and used widely, the Principles will provide central and local governments as well as financial institutions with a practical guidance to apply their investment resources to more effective disaster risk reduction.

A handwritten signature in black ink that reads "Han Seung-soo". The signature is written in a cursive, flowing style.

Han Seung-soo, Chair of HELP

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<sup>1</sup> The human cost of weather-related disasters 1995-2015 (UNISDR, 2015)

<sup>2</sup> Making Every Drop Count – An Agenda for Water Action (HLPW, 2018)

<sup>3</sup> Water and Disaster Risk (UN, 2014)

<sup>4</sup> See also The UNSGAB Journey Report (UNSGAB, 2015)

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Double the investments and financing for water-related disaster risk reduction globally by 2025 with a focus on disaster risk reduction/preparedness, and Shift the proportion of financing in international assistance for disaster risk reduction/preparedness and that for emergency response/rehabilitation from the current 10%:90% to a more balanced approach towards eventually 90%:10%.

- Worldwide direct economic losses caused by disasters are significantly increasing, and the number of people affected by disasters is on the rise. The economic damages of water-related disasters alone over the past 20 years amount to about 1.8 trillion US dollars<sup>1</sup>. Water-related disasters account for almost 90% of the world's top 1,000 disasters<sup>2</sup>.
- 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. However, about 90% of the international assistance is directed for emergency response and reconstruction/rehabilitation, while the amount disbursed for disaster prevention and preparedness is limited to only 10%<sup>3</sup>.

I. Water-related disaster risk reduction is indispensable for equitable, resilient and sustainable development

1. Measures implemented in advance to mitigate water-related disasters should not be viewed as a cost, but as an investment in future development. In addition, there are considerable costs of inaction. Disasters interrupt and slow down the economic growth of countries by damaging public and private infrastructure and affecting people and economic activities, which is felt most by the poor.
2. Disasters caused by extreme water-related events can be prevented or mitigated by developing disaster prevention structural and non-structural measures ahead of disaster events. Structural measures include combinations of grey infrastructure with green (nature-based) solutions (e.g. use of wetlands and farming fields for flood retention). Soft or so-called non-structural measures include for example risk-informed urban development and land use planning, multi-hazard forecasting and early warning systems, awareness-raising, drills, and education.
3. The exact balance of investment in structural versus non-structural measures, and grey versus green infrastructure, is to be decided through the development of disaster risk reduction strategies at regional, national and local levels.
4. Water-related disaster risk reduction is a key component of Integrated Water Resources Management (IWRM) and National Adaptation Plan process and should be promoted through participation of water users, to yield multi-faceted benefits, such as efficient water use and enhanced biodiversity. Unevenly distributed water, both temporally and spatially, can be effectively managed by an integrated systems approach.
5. The full value of disaster risk reduction should be recognized with the long-term and wide societal view of its benefits. Among others, the cost of water-related disasters is large and will continue to increase driven by urban development and the impact of climate change.

<sup>1</sup> The human cost of weather-related disasters 1995-2015 (UNISDR, 2015)

<sup>2</sup> Water and Disaster Risk (UN, 2014)

<sup>3</sup> Financing Disaster Risk Reduction (ODI & GFDRR, 2013)

## II. Ex-ante measures for water-related disaster risk reduction should be prioritized and incentivized in all sectors

6. Relatively frequent water-related disasters should be forestalled mainly by implementing preventive structural measures at lower cost than the amount spent for recovery. Empirically, one dollar invested in flood and drought resilience measures saves multiple dollars in future avoided losses.
7. Combinations of structural and non-structural measures against large-scale and less frequent water-related disasters should also be implemented, relying more on non-structural measures against larger events in order to avoid devastating damages to the society and economy, while putting the highest priority on protecting human lives.
8. A risk-based planning approach that considers deep uncertainty helps develop a balanced portfolio of structural and non-structural measures which reduce disaster risk in an efficient, adaptive and sustainable manner. The risks and resilience benefits should be quantified and communicated to all stakeholders.
9. A “Build Back Better”<sup>4</sup> approach should be incorporated into the recovery and reconstruction process so as to improve the resilience of communities and prevent recurrent damages from similar disasters. If well managed, reconstruction processes could be an opportunity for societies to increase their resilience and make economic progress.
10. Disaster risk reduction should be mainstreamed by all economic sectors, such as infrastructure and urban development, industries, and financial business.
11. Investment needs to be enhanced for adaptation measures to climate change, which is projected to increase the frequency of natural water hazards and the scale of loss and damage.
12. Sufficient budget for the maintenance and proper operation, including monitoring and upgrading, of existing and new infrastructure should be secured to prevent malfunction of facilities and the devastating damages caused by deteriorated infrastructure. Budget for meteorological, hydrological and climate observation should be secured as scientific base of all planning and political decisions.
13. Alignment of policies and incentives to encourage disaster risk reduction contributes to minimizing investment needs and avoiding future liabilities.

## III. Governments should improve their systems and allocate sufficient budget for water-related disaster risk reduction

14. Governments must prepare legal, fiscal, budgetary, information, and administrative systems for water-related disaster risk reduction. This should include mechanisms for inter-ministerial and inter-agency coordination and collaboration and for accountabilities and hierarchies. The central government should prepare emergency support and financial assistance systems for disaster-affected local governments in case a large-scale disaster exceeds local capacity.
15. It is crucial to define the roles and responsibilities, and to empower and enhance the coping capacity, of all stakeholders, including residents, communities, local governments and the central government.
16. Budget for ex-ante disaster risk reduction should be secured at local level as well as at national level, considering the circumstances and frequency of natural disasters. That budget data should be recorded and made traceable.
17. An emergency reserve fund for disaster response should be secured and swiftly disbursed after disaster events.
18. Governments and financial institutions should ensure transparency, accountability, integrity and effective public participation including the most vulnerable groups in the process of investment planning for disaster risk reduction.

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<sup>4</sup> “Build Back Better” is a concept of recovery and reconstruction to increase the resilience of nations and communities through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems.

#### IV. More funding sources than public disaster risk reduction funds should be mobilized for water-related disaster risk reduction

19. Comprehensive and adequately enforced legislation needs to guide and incentivize the participation and investment of the private sector.
20. Mobilization of private funds<sup>5</sup> can support increasing demand for resilient infrastructure. Implementation of measures against water-related disasters in conjunction with the other sectors, such as water resources management and urban planning, helps diversify funding sources.
21. Evaluation of actual cost and benefit of water use, including water-related disaster risk reduction, and the multiple values of water - economical, environmental and social - is necessary to rethink a healthy and sustainable development of water-related infrastructure.
22. Capital and operative expenses required for proper disaster risk reduction should be considered in the estimation of lifecycle costs of infrastructure development projects from a design stage.
23. It should be noted that water-related insurance (floods and droughts) is effective to speed up recovery but does not physically reduce the disaster risks. Insurance can improve risk management through payment of risk-based premiums.
24. Systematic reporting and disclosure of water-related risks should be improved through, inter alia, implementation of effective climate-related financial disclosure by companies<sup>6</sup>.
25. Collaboration among the climate, disaster and water communities should be encouraged considering the utilization of respective funds for the purpose of disaster risk reduction.

#### V. The international community should expand financing for water-related disaster risk reduction

26. International cooperation in disaster prevention should be strengthened under the international frameworks, because disaster damages in a single country may have ripple effects to the world, for example, through supply chain disruptions. Therefore, the international community should focus more on investments for disaster risk reduction, over recovery and reconstruction.
27. Any surplus funds in the pledged assistance of emergency response should be effectively utilized for further disaster risk reduction to build more resilient societies.
28. The international community should encourage the Green Climate Fund (GCF) of UNFCCC and other public and private climate-change-related funds to be more responsive to water-related disasters.

#### VI. Funding for science, technology and knowledge systems should be strengthened to support sound investment decisions

29. Data and knowledge on the losses, impacts and risks of water-related disasters should be improved to evaluate the effectiveness of investment and facilitate better investment decisions.
30. Cooperation and alliances among science communities should be enhanced to develop and apply science and technology to disaster risk reduction.
31. Investment in education and capacity building should be secured for creating the enabling environment for locally tailored disaster risk reduction policies.

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<sup>5</sup> Priority areas to facilitate private action in disaster risk reduction are data and information, institutional arrangements, policies, economic incentives and communication, knowledge and technology (IFC, 2013).

<sup>6</sup> Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD, 2017)