

# United Nations High-level Political Forum on Sustainable Development (HLPF)

## Inputs of UNESCO International Hydrological Programme (IHP) on its contribution to SDG 6 and the 2030 Agenda

- (a) an assessment of the situation regarding the principle of “ensuring that no one is left behind” at the global level;

2.1 billion people lack safely managed drinking water services and over 2.3 billion people lack basic sanitation services. 892 million still practice open defecation; current trends indicate that this will not be eliminated before 2030. In addition, 4.5 billion people lack safely managed sanitation services. In least developed countries (LDCs), only 27 per cent of the population have access to soap and water for handwashing on premises. These circumstances fuel poverty, inequalities, and human misery. Regardless of all the water investments in developed and developing countries, water still remains among the major risks faced in the world.

As the basis for all human and ecosystem life, water provides a natural foundation upon which the achievement of several of the Sustainable Development Goals (SDGs) can be attained. Given these interlinkages, UNESCO-IHP has been considering multidisciplinary and multi-stakeholder approaches in addressing SDG 6 and water-related goals. It also requires mechanisms to ensure data generation and dissemination are established so that the processes and drivers of hydrological change and its interaction with humans and the environment is properly understood. As water is everybody’s business, actions are needed that go beyond water management. It is only with each individual’s contribution that water can be sustainably managed, saved and protected.

In this context, UNESCO has supported Member States promote changing the mindsets of individuals in their relationship with water to enable its improved management and protection, through a multidimensional approach. As the only intergovernmental programme of the United Nations (UN) dedicated to water, UNESCO-IHP mobilises all UNESCO’s strengths under its broad mandate and the international cooperation to improve knowledge, innovation, institutional and human capacities, and cultural behaviour to address water security challenges. The IHP convenes scientists, professionals, and the society at large, together with policy makers to truly build capacity in humanity to enhance water governance.

Moreover, the content of the IHP VIII phase (2014-2021) on Water security comprises of all the subjects contained in SDG6, along with other water related targets in the 2030 agenda; in addition it includes several other concerns on water management, some of which are not mentioned in any of the international agendas such as water- ethics and climate change, water and culture, and water and gender.

Further to SDG 6, the programme contributes to eradicating poverty (SDG 1) by ensuring that minorities have access to water for their needs and development, to face water-related challenges within cities (SDG 11), and to face and contribute to mitigate impacts from climate change (SDG 13). IHP also contributes to SDG 4 on education by supporting the provision of water services at schools and building capacity of water professionals, and SDG 5 on gender by enabling Member States to have water transformative policies on gender.

UNESCO has also recognised **the challenge of consolidating the breadth of knowledge generated** by the UN and other agencies working on water, and has responded by creating opportunities to learn from and build on this knowledge. UNESCO's World Water Assessment Programme (WWAP) is responsible for the development of the World Water Development Report (WWDR) since 2001, well before the efforts to deliver as one started at the UN. The WWDR is an annual theme-oriented report which draws together contributions from across the UNESCO-IHP network (the UNESCO Water Family, comprised of UNESCO water-related Centres, Chairs and IHP National Committees); regional UN organisations (including UNECE, UNECLAC, UNESCAP, and UNESCWA); UN-Water members; and water professionals, scientists and NGOs. "Leaving no one behind" is the topic of next year's WWDR and highlights the how improved water management can help alleviate the causes of human crises as well as mitigate their impacts so that even the most vulnerable are protected.

Considering the global efforts made towards SDG 6, it is equally imperative that **mechanisms are established to track global progress** on this SDG. This would increase awareness and understanding of countries of the achievements and gaps in addressing SDG 6, enable them to refine their strategies towards achieving SDG6 and water-related goals. UNESCO WWAP today leads a task force of UN-Water which was established to produce the SDG 6 Synthesis Report on Water and Sanitation 2018. This report aims to provide an overview of the status of the implementation of SDG 6 at the global and regional levels.

The need to implement the targets outlined by the SDGs has provided a significant opportunity and foundation on which to increase the **availability and access to scientific data and improve knowledge in water-related domains**. This is particularly critical in countries where limited technical capacity impedes the quality and scope of countries' abilities to adequately address water security. Through the use of ICT, UNESCO-IHP has supported the **development of tools** (e.g. Free **Open Source** Software), methodologies, and **open access** information necessary to provide Member States with tools to address water security challenges. UNESCO-IHP has in turn supported the dissemination of these tools and information through capacity building and linkages through its vast networks of water professionals. Additionally, **UNESCO-IHP provides capacity building and technical skills training** to water professionals as a key component of the implementation of the IHP strategy. **UNESCO's global priorities of Africa and Gender ensure that such activities are targeted at those who are most vulnerable to the impacts of water stress**. UNESCO IHP acts thus in many different fields and using a broad range of tools.

(b) the identification of gaps, areas requiring urgent attention, risks and challenges;

The main gap identified by UNESCO at global level is two fold: (a) first the lack of a multidimensional approach. Water organisations generally work only from the perspective of water, omitting to consider the need to change individuals' mindsets. Water challenges need to be addressed by integrating technical and socio-economic perspectives. There is also need to educate and change culture to permanently and sustainably change the behaviour of the society at large regarding how they see water. Secondly, (b) there is need to create a massive and urgent movement to address water challenges by mobilizing ALL and changing minds on people's relationship to water. UNESCO is mobilizing its Water Family, which counts for 169 IHP National Committees, 38 water Centres and 58 water Chairs globally. Its mandate is also to address water security challenges in a multidimensional way, through UNESCO's vision and philosophy and in response to the needs of its Member States.

The successful management of water resources in support of the achievement of all SDG 6 targets requires decision-makers, communities and all water users generally to have access to reliable data and information. However, facilitating this requires the coordination of timely data collection, management and exchange, particularly across sectors, but these steps continue to pose a significant challenge to the achievement of these targets today.

Although the Multiple Indicator Cluster Surveys (MICS) questionnaire utilized presents advantages to evaluate and monitor water and sanitation, those household surveys tend **to hide inequalities** in access to water and sanitation **related to gender or ethnicity**. The SDGs call for disaggregated data, and a critical role is played by gender analysis. In order to ensure SDGs achievement, interconnecting targets and indicators for Goal 5 on gender equality and Goal 6 on clean water and sanitation is crucial. Disaggregating data by sex in water resources management allows to ‘quantify’ gender relations and inform water policies in light of the SDGs and to implement gender-transformative actions within the national strategies.

Acknowledging the **unequal availability of data and the gap in its access** between developed countries and developing/emerging economies, UNESCO-IHP launched in 2017 the **Water Information Network System (WINS), an online, participatory, open-access source, and knowledge-sharing platform**. WINS is a tool freely made available to Member States, water stakeholders and partners, with the aim of encouraging contributors to share data and information on water-related issues at all levels. For countries lacking human, technical, and/or financial capacities to safely store, analyze and access information, WINS provides a cost-less tool to do so. As a result, information from various sources and in different formats are brought together.

**UNESCO has developed an innovative Gender and Water Toolkit**, providing a conceptual framework and sex-disaggregated indicators for the monitoring of the SDGs, with particular reference to SDGs 5 (gender) and 6 (water and sanitation), which are interlinked with all the other SDGs. It provides users with a pioneering methodological framework and with key-indicators to assess the current status of gender equality in the water sector on national, regional and global scale.

This contributes to fostering an equal and sustainable access to information, thus closing the gap between North and South in terms of access to knowledge. By doing so, the platform directly supports scientific-based decision-making and policy-recommendations through building capacity for sound water resources governance.

In many regions, particularly in developing countries in Africa, there is a **lack of reliable tools for the design of resilient hydraulic infrastructures**. For example in West and Central Africa, available tools developed in 1960-70s are still used by managers and engineers despite the huge ecological and climate change recorded within the region. UNESCO has been developing a programme to review and update these tools to enable the improved design of hydraulic infrastructures within the region.

UNESCO also implements 15 individual initiatives which contribute to deepening the knowledge and information on hydrological science, as well as creating global networks of scientists.<sup>1</sup> The work undertaken through these initiatives contributes to closing the knowledge gap on the use and management of water resources.

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<sup>1</sup> See Hydrology Initiatives, <https://en.unesco.org/themes/water-security/hydrology/programmes>.

UNESCO-IHP has identified another major gap in efforts to monitor and achieve SDG 6 target 6.a. using the current indicator: “Amount of water- and sanitation-related Official Development Assistance (ODA) for water- and sanitation-related activities and programmes that is part of a government coordinated spending plan”. Indeed, the target does not require information on whether or not Member States have the necessary capacity to improve their baseline for water-related targets to be gathered. Moreover, the impact of the ODA will be diminished and will lack sustainability if there are not sufficient trained and skilled human resources to achieve full water and sanitation services coverage.

This finding builds on the 2016 UNESCO World Water Development Report (WWDR 2016), which highlights that the sustainable management of water resources and the provision of water-related services can positively influence employment growth and decent jobs. IHP’s activities in this area aim to address the mismatch of needed skills and the level/type of education of the workforce. It is essential that countries are better equipped and prepared to capitalize on the opportunities of a youthful population. Addressing youth unemployment, the mismatch of skills, and the gender gap in the water sector, can contribute to achieving water security in Africa. One major way to address these challenges in the water sector is by strengthening water education in Africa at all levels.

Other areas requiring urgent attention are:

**Water savings in Agriculture.** Agriculture accounts for nearly 70% of global freshwater withdrawals. Saving just a fraction of this would significantly alleviate water stress in other sectors.

**Sustaining water-related ecosystems.** Over the last century, the world has lost 70% of its natural wetlands. Sustaining and recovering water-related ecosystems are vital both for societal well-being and economic growth.

**More international cooperation and funding.** Many countries have insufficient financing to meet national WASH targets. Official development assistance (ODA) funding is important, but so too is stronger domestic financial engagement, including the private sector, and better use of existing resources.

**Smart technologies to drive improvements in management and service delivery.** IT-supported smart technologies can effectively improve all aspects of water resources and WASH management.

(c) valuable lessons learned on transformation towards sustainable and resilient societies;

- **Knowledge platforms are necessary to close the information gap**

Knowledge platforms are necessary to enable the exchange of information and lessons learned on addressing challenges. Furthermore, the dissemination of relevant information, ideas and lessons learned need to reach a wide spectrum of stakeholders and stimulate North-South and South-South collaboration and networking. The generation and dissemination of knowledge also contributes to the creation of solutions that are more resilient to current and future challenges and opportunities within the context of 2030 Development Agenda.

An example of this took place in October 2017 when UNESCO held a Knowledge Forum on Water Security and Climate Change<sup>2</sup> in Paris, bringing together 124 participants of more than 25 countries to

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<sup>2</sup> <https://en.unesco.org/water-climate-knowledge-forum>

discuss innovation and best practices on the most pressing water challenges. The Knowledge Forum also highlighted the contributions from young researchers and professionals.

- **Youth involvement**

Youth engagement in water governance is essential for water security. Youth are involved as leaders in national, regional and global water governance initiatives and should be engaged in policy processes as knowledge-holders and innovators who can provide solutions for the achievement of SDG 6. One valuable lesson learnt from engaging youth in the water sector is that more financial support is needed to build the capacity of youth networks to ensure their sustainability as well as that of gender and regional balance in the youth representation in global water policy processes. Additionally, the organization of Youth Forums during global water governance forums often serve as a key mechanism through which young women and men are included in policy processes, however, greater value may be gained from having youth participate directly in the main decision making processes of the forum instead of organizing separate processes for them. Therefore, greater political will is needed to ensure more intergenerational policy dialogues within the water sector.

- **Water quality is key**

Maintaining water quality is an important factor towards building sustainable and resilient societies as it can have detrimental effects to human health and subsequently the economy of a nation. To facilitate this, it is necessary to improve the availability of and access to water quality information at the global level. Increased access to water quality information will lead to a better understanding of the impact of climate and anthropogenic changes on water resources and facilitate science-based, informed decision-making for water management. The UNESCO World Water Quality Portal developed by UNESCO-IHP's International Initiative on Water Quality (IIWQ) facilitates science-based, informed decision-making for water management and directly supports SDG implementation and monitoring. .

- **Transboundary cooperation**

There are today 276 transboundary river basins and lakes and 592 transboundary aquifers (IGRAC, 2015), each of which are shared between two or more countries, and each country having differing values and needs for water. Transboundary cooperation is a key element to sustain "Transformation towards sustainable and resilient societies". Without transboundary cooperation, development efforts are impaired and countries will not reach the established targets. Water is a characteristic example of an interconnected resource at transboundary level and the work UNESCO has been undertaking through its International Shared Aquifer Resources Management (ISARM) and Potential Conflict to Co-operation Potential (PCCP) initiatives are a direct recognition of the need to improve transboundary cooperation over water resources. The role of UNESCO as co-custodian agency of SDG 6.5.2 on transboundary water cooperation, together with the United Nations Economic Commission for Europe (UNECE), builds on these initiatives.

- **Multi-stakeholder participation in decision-making**

There is a need to overcome the misleading distinction or opposition between adaptation and mitigation, which applies to climate change but also to many other environmental pressures. Any comprehensive mitigation strategy is necessarily socially transformative and thus to a significant extent adaptive. Conversely meaningful adaptation must be transformative and to that extent conducive to lower net greenhouse gas emissions.

UNESCO's Management of Social Transformations (MOST) programme works with research communities and with governments to enhance the connection between the social science and

humanities knowledge base and action capacities towards sustainable and resilient societies. On the basis of the agenda set by the 2013 World Social Science Report, global environmental change constitutes one of MOST's five thematic priorities. To respond to these challenges, MOST has worked to develop transdisciplinary sustainability science, to promote environmental humanities, and to support national and regional understandings of vulnerability and resilience through collective learning activities such as MOST Schools, which have been conducted on these issues in South-East Asia, in Southern Africa and in the Caribbean.

The MOST programme has demonstrated that there is a need to go beyond technical approaches to environmental policies, recognizing that socio-ecosystems are driven *inter alia* by narratives that have very real consequences. Understanding and shaping such narratives, using the concepts and methods of the humanities, are indispensable components of a transdisciplinary science of sustainability and of a comprehensive approach to adaptive transformation.

(d) emerging issues likely to affect building sustainable and resilient societies

- **Youth**

There are 1.8 billion young people aged between 10 and 24<sup>3</sup>, which is the largest youth population ever. They make up almost a quarter of the world's total population and ninety percent of them live in developing countries. The power of 1.8 billion people cannot be ignored and their engagement or lack thereof will determine if the SDGs are achieved and if the agenda leaves no one behind. Additionally, Africa has the youngest population in the world and 'ten of the world's youngest countries' are in Africa<sup>4</sup>. Africa's youthful population can be viewed as an opportunity for economic growth and/or a challenge if Africa does not plan for, or seize this opportunity.

Africa is a global priority for UNESCO and youth is a priority group for the organization. In keeping with UNESCO's strategy of viewing Youth not just as beneficiaries but as essential actors in finding solutions to the issues they face, UNESCO-IHP supports the participation of youth as leaders in global water governance and decision-making processes. This approach allows young women and men to identify, advocate and mobilize support for their water related initiatives. A recent example is the institutional and technical support provided by UNESCO-IHP during the organization and implementation of the youth forum of the eighth World Water Forum in Brasilia 17-18 March. The Youth Forum mobilized youth groups and allowed them to identify water related priorities and a shared vision to address them. The forum also facilitated the preparation of key messages that they used to advocate during and after the forum. The main outcome of the youth forum was a Youth Statement that was included in the outcomes of the citizen's process and a call for action in which youth groups committed to implement specific actions as follow up to the forum.

- **Climate induced migration**

The intensity, incidence and severity of drought, desertification and floods are soaring particularly in the drylands of Africa where 70% of the populations are mostly young and dependent on a single agricultural livelihood. Inadequate and unreliable water supply results in the loss or disappearance of agricultural jobs, usually triggering at first rural to urban migration. In already stressed urban areas that offer inadequate infrastructure and saturated labour markets the most skilled youth usually

decide to ultimately migrate. Migration is therefore often the response of the vulnerable members of society as a way to adapt to the risks and uncertainties of a changing climate and its impact on water.

Furthermore, climatic threats to water availability and access have different impacts on women and men. There is evidence - only between 1960 and 2015, the number of female migrants doubled - that migration is a gendered process, which plays out differently in diverse societies depending on local cultural norms that do not only affect and are affected by gender roles, but also by age, class and ethnicity. In the Middle East, in already high water-stress situations (Lebanon and Jordan) the influx of refugees has contributed to putting pressure on water resources that are already over-exploited or not efficiently managed. Unemployment has been on the rise in the Middle East due to agricultural productivity and depletion of groundwater resources, which has caused rural to urban migration and brought about social unrest.

Water scarcity, food insecurity, gender and social stability are therefore clearly connected. These factors can trigger and intensify migration patterns throughout the world.

- **Transboundary water cooperation**

Steps are necessary to revise outdated agreements on transboundary waters, strengthen existing forms of cooperation, negotiate new cooperative arrangements and remediate to lack of financial, human and technical capacity, and poor data availability, especially in relation to transboundary aquifers and their delineation. UNESCO is undertaking continued exchanges with Member States in order to support them towards the improvement of the SDG 6.5.2 indicator value.

- **Challenges in groundwater assessment**

While many transboundary arrangements covering rivers and lakes either explicitly or implicitly reference groundwater, arrangements that sufficiently address transboundary aquifer management are lacking. This comes in contrast to the fact that there are 592 transboundary aquifers. UNESCO is promoting the vital role of groundwater resources, which sustain most of the world's drinking water supply, and are also essential for irrigation or industrial supply globally.

(e) areas where political guidance by the high-level political forum is required;

As the achievement of SDG6 and related targets is critical to the achievement of other SDGs due to their great interlinkages and due to the recognized relation between water, peace and security, political guidance by the HLPF is required on:

- Calling on urgent action from Members States to accelerate particularly in developing countries, the achievement of SDG6 using knowledge and innovative and open access tools provided by the IHP as a key element in their strategies;
- Calling on Members States to implement the various World Water Forum Ministerial declarations and those of other international water-related fora;
- Supporting the implementation of the International Water Decade for Sustainable Development, and recommendations from various water-related high level panels using better the existing structures ;
- Calling on Members States to adapt their national policies to integrate the implementation of the UN Resolution related to water access and sanitation as a human right so that no one is left behind. For this, there is need to change the mindset of the society at large not only to perform financial investments.

- Calling on Members States to establish capacitated and resourced national institutions and to dedicate a minimum percentage of national budget to water and sanitation.

(f) policy recommendations on ways to accelerate progress in establishing sustainable and resilient societies;

In the analysis of SDG 6 and its water-related targets and its indicators, two issues clearly emerge for consideration and resolution and ultimately the successful implementation of the 2030 Agenda. The philosophy of the establishment of targets and indicators under SDG 6 is to measure the progress in the management of water using parameters considered of universal use and application. This results on the one hand, on imposing a very prescriptive way for countries to address their water agenda. On the other, they are irrelevant where parameters have a different meaning (or even no significance at all) at the country or even local level. An example of this can be seen in the case of water pollution parameters which can differ from one water body to another in a same region, or the changes on the surface of water bodies where volume is the relevant aspect. This creates a problem as countries not only have different levels of information and capabilities but also have very different water problems and priorities. Moreover, the information available to them is adapted to their needs and not to the need to calculate the pre-defined indicators based on preselected parameters.

A review on such philosophy for measuring progress can be considered with a view to introducing the idea to measure the change considering local goals. Comparison among countries would be feasible by measuring the progress related to a same scale of accomplishment (from zero to one, where zero is no progress and one is the accomplishment of the local/national target). Furthermore, the review of co-custodian agencies for all SDGs targets needs to involve and give responsibility to a broader set of UN agencies and programmes.

Second, there is a need to review the indicators / methodologies and parameters that are used, due to the fact that proper information was not used on which to base their development. This introduces uncertainty in the process of measuring achievement of the overall goal. Furthermore, some indicators such as those related to 6.a and 6.b, fail to capture completely the scope for the target. These limitations can lead to the failure to accomplish targets and SDG 6 overall. As these problems also exist for other SDGs than the SDG 6 there is a risk of not being able to accomplish SDG 6, even though the targets based on the indicators used.

Due to the way in which the review of the 2030 Agenda is being conducted, this may not be fully perceived in this first review. Thus, UNESCO-IHP recommends that the HLPF requests UNESCO in collaboration with scientific organisations to undertake the preparation of such analysis and inform Member States..