Contributions to the 2030 Agenda for Sustainable Development

ECOSOC functional commissions and other intergovernmental bodies and forums, are invited to share relevant input and deliberations as to how they address goals and targets from the perspective of "*Ensuring that no one is left behind*".

Inputs could follow the following template, inspired by the report of the Secretary-General on Critical milestones towards coherent, efficient and inclusive follow-up and review at the global level (A/70/684).

Submissions will be publicly posted online at the United Nations Sustainable Development Knowledge Platform, at sustainabledevelopment.un.org, as input to the 2016 meeting of the High-level Political Forum on Sustainable Development.

Please send the completed form no later than **16 May 2016** to the Secretariat's e-mail pietracci@un.org

Submission Form

Please Note: the following document condenses the inputs provided by organizations leading different Themes of the 7th World Water Forum's Thematic Process. In particular, inputs have been provided by the following organizations: Programme Solidarité Eau (pS-Eau); AquaFed; International Water Association (IWA); K-water; International Water Resources Association (IWRA); OECD Water Governance Initiative (WGI); International Network of Basin Organizations (INBO); United Nations Educational, Scientific and Cultural Organization (UNESCO); Women for Water Partnership (WfWP); International Network of Water Training Centers (INWTC).

1. An assessment of the situation regarding the principle of "ensuring that no one is left behind" at the global level:

– Access to drinking water and sanitation:

Water is a resource revealing striking inequalities, showing that half of humanity is still "left behind": nowadays, between 2 and 4 billion people are consuming contaminated water and 663 million people still lack access to improved drinking water sources. With regard to basic sanitation access, since 2002, the international community has recognised it as a key challenge for the 21st century. Unfortunately, 13 years later, the extent of the challenge has increased: 2,5 billion people live without access to improved sanitation (1/3 of the world population) from which 1 billion people practice open defecation (JMP). Even if 2010 was a new step with the recognition of the human right to water and sanitation, the question beyond the toilet, indeed the evacuation, treatment and eventually reuse of the wastewater and excreta is rarely considered. Toilets that don't take account of the rest of this sanitation ladder achieve virtually nothing. However, we still don't have global indicators to monitor the evacuation and the treatment of wastewater and excreta, but an estimated 90 per cent of all wastewater in developing countries is discharged directly into rivers, lakes or the oceans" (UNEP-UN-Habitat, Sick Water, 2010).

Moreover, water is essential for all socio-economic development and for maintaining healthy ecosystems. As population increases and development calls for increased allocations of groundwater and surface water for the domestic, agriculture and industrial sectors, the pressure on water resources intensifies, leading to tensions, conflicts among users, and excessive pressure on the environment. However, it is estimated that by 2025, 1 800 million people will be living in countries or regions with absolute water scarcity and lack of sanitation, and two-thirds of the world population could be under stress conditions.

Furthermore, water is a resource highly impacted by climate change: preserving and managing water is thus a consequent challenge, as it deepens inequalities in the face of hydric stress or natural disasters.

- Water and energy:

Clean and secured water supply cannot be realized without energy. Energy is needed across the water cycle including for groundwater extraction, transportation, purification, distillation, distribution, collection and wastewater management and treatment. Energy represents the largest controllable cost of many water infrastructures. Energy requirements for surface water pumping are generally 30% lower than for groundwater pumping. It is expected that groundwater will become increasingly energy intensive as water tables fall in several regions.

As equal as the importance that energy is to water, water is also crucial for energy sector. The extraction of raw materials, cooling in thermal processes, in cleaning processes, cultivation of crops for biofuels, and powering turbines: all these processes rely heavily on water. Approximately 580 billion cubic meters of freshwater are withdrawn for energy production every year worldwide. This amount accounts for 15% of the world's total water withdrawal. By 2035, energy consumption will increase by 35%, which will consequentially increase water consumption in the energy sector by 85%.

Water and energy are intricately connected. The interdependence and inter-linkages between water and energy means that the crisis in one sector can quickly diffuse to other sectors and thus cause dramatic ecological, economic, social and political ramifications.

- Water cultures, equity and justice:

While water is a key resource for humanity as a whole, the diversity of relationships to this element and its value between regions and sectors contributes to forming many different cultures of water. Whether water is understood as an economic good that individuals and communities have the right to, or a sacred element to be protected and has its own rights, all perspectives on water need to be considered in order to improve its management and governance, ensure its protection, quality and accessibility, while pre-empting potential user conflicts. Hence the need to take into account the diversity of stakeholders in water-related issues in order to 'ensure that no one is left behind' and reach water security at all levels.

To ensure that no one is left behind, intense and complementary efforts are required by government, UN and civil society as we implement sustainable development in order to both ensure human rights of all and dismantle systemic inequalities. Achieving gender equality, the realization of women's human rights and the empowerment of women are essential and cross-cutting to all of the SDGs and to actualizing a transformative agenda, rather than replicating business as usual in new guise.

The twin concerns of "precaution" and "inter-generational equity" are central issues of social justice. The poor are more vulnerable to unintended consequences of water development, and standards of precaution (the "precautionary principle") need to be maintained to protect their interests. Similarly, the interests of future generations depend on restraint in permanently altering water ecosystems through dams, industrial contamination, or exploitation of non-renewable aquifers.

Indigenous peoples' traditional knowledge has maintained throughout millennia a balance with all living things, practices that protect water and all life. This knowledge will address all SDGs through the implementation of the UN Declaration of Indigenous Peoples.

The principle of "ensuring that no one is left behind" still has a long way to go at the global level, applying also to gender inequalities, and minority rights.

The underprivileged and marginalized cannot raise their voices. Least Developed Countries attempt to alleviate poverty and ensure human rights, but they are not often aware of how to begin or what to do. It is recommendable that a network platform where LDCs' demand on capacity building can effectively connect to developed country's willingness to pass down their capacity.

Although principles and directions have been repetitively put forward, action plans to realize them into practice should be further suggested. The action plans should be established at various levels.

- Capacity building and education:

To achieve the water related-SDGs (this goes way beyond just SDG6), it is indispensable to improve education, build capacities and train water professionals of the water management sector. It is easy to forget those who work to get our water and sanitation services running and to keep our water resources clean and abundant. But facts and figures provide a clear wake-up call: for instance, it is worth noting that providing a water supply service for 1 million people requires an estimated 500 to 700 qualified staff members. Expenditure in human resources can reach up to a third of the overall water supply cost. Optimizing this considerable item of expenditure implies building capacities through education and vocational training.

Significant investments are made in the water sector each year. However, these investments sometimes miss their targets. With regard to the small water cycle and municipal water and sanitation services, this is often due to multiple deficiencies in the way infrastructures are designed, managed and run. As a result, many infrastructures deteriorate much faster than planned. It is crucial to improve the way infrastructures are designed, operated, maintained and replaced. It will require better governance of services, reinforced capacities and human resources.

With regard to the big water cycle and the management of the basins of lakes, rivers and aquifers, the same issues have been observed. Even when there is a legal and institutional framework for the Integrated Water Resources Management at basin level, there is often a lack of qualified staff trained to perform the basic functions of basin management: planning, financing, monitoring, information sharing, etc.

Funds are frequently squandered as a result of the existing gap in education, capacities and training.

- Transboundary water resources:

We should also consider that 40% of the world's population lives in transboundary rivers and lake basins, and more than 90% lives in countries that share transboundary water (one or more of the 276 transboundary surface water basins and 608 transboundary aquifers -identified to date). Therefore, enhancing cooperation on transboundary water management is crucial to "ensure that no one is left behind".

When assessing the situation of cooperation on transboundary water management with regard to the principle of "ensuring that no one is left behind" at the global level, the question is: is the glass half-empty or half-full?

A glass-half-full assessment would highlight the significant progress recorded in the field of cooperation on transboundary water management in the past 30 years.

Two international conventions have been established for cooperation on transboundary rivers and lakes and more than 400 agreements are now governing transboundary rivers and lakes. Moreover, Integrated Water Resources Management (IWRM) has been a guiding principle for most of these legal instruments.

A glass-half-empty assessment would stress that not all transboundary waters are covered by an international agreement and by a basin organization in charge of its management. Absence of such legal and institutional arrangements can result in a suboptimal use of transboundary water resources, tensions over conflictive uses or even conflicts.

Transboundary basin organizations do exist, they often do not have the resources required to fulfil their mandate: insufficient institutional or legal structures, lack of financial resources, of qualified staff or of water information system fed with reliable data by robust monitoring networks. Existing capacity building initiatives can bring improvements, but the current funding allocated to them fall short of what is actually needed.

When it comes to transboundary groundwater management, international law is still developing, even though the UNECE Water Convention applies to transboundary groundwaters as well as surface waters and a number of joint bodies for transboundary water cooperation deal also with groundwaters. Though the Draft Articles on the law of Transboundary Aquifers have been annexed to a UN General Assembly Resolution (63/124 of 11 December 2008), they do not have the status of an international treaty. Legal and institutional arrangements have been adopted in only a very limited number of transboundary aquifers. This is of course a significant cause for concerns as 97%

of global available freshwater is groundwater, with (as mentioned above) 608 transboundary aquifers identified to date.

Although getting a dedicated SDG target (n°6.5) is good news, there is no guarantee of achieving this goal (as demonstrated with the sanitation target of the MDGs). To yield improvements in cooperation on transboundary water management and "ensure no one is left behind", proper funding and adequate indicators for the monitoring of progress are required.

Finally, and more broadly, the landscape of international organizations involved in water management is rather characterized by institutional fragmentation and overlaps. This is all the more troubling as the water crisis is first and foremost a governance crisis, as technical solutions do exist. Governance world-wide needs to be strengthened to provide guidance and support to States requiring assistance in water management. Considering transboundary contexts, two global freshwater conventions, an institutional framework and various soft law instruments exist to support States in improving their cooperation. Support is needed to translate the principles of international law into the specific local and basin contexts for sustainable management of waters close to the users.

– Water Governance:

The adoption of the Sustainable Development Goals (SDGs) has created a unique momentum for countries to advance on a variety of issues critical for political, socio-economic and environmental development. It offers an opportunity for policy makers and stakeholders to mobilise collective efforts, create shared global understanding and commit to action to improve the lives of people and the environment by shifting the previous paradigm focused on solving individual situations and beginning to connect the dots between actors, policy fields and scales to address development challenges in a systemic way.

The interconnectedness of the SDGs implies that their implementation should be considered in a systemic way. This requires particular attention on:

- Multilevel governance: the SDGs explicitly recognise the importance of governance in shaping, designing and implementing public policies. Both local and subnational governments have a key importance in the design and implementation of policies, strategies and plans worldwide, on a broad range of themes covered by the SDGs, from carrying out public investment, to eradicating poverty, to ensure universal access to quality public services.
- Multi-stakeholder engagement: the implementation of SDGs should rely on a whole-of-society approach for citizens to fully reap expected benefits. Achieving such universal standards is a shared responsibility across multiple actors that requires engagement with relevant public, private and non-profit stakeholders.

Implementing the water-related SDGs requires countries to translate global goals into concrete actions on a number of water topics: access to drinking water and sanitation; water resources management; water quality and wastewater treatment; and water-related disasters. However, to do

so and achieve the targets set by the SDG up to 2030, countries will have to address a number of shortcomings related to water policy design, regulation and implementation.

Better governance is instrumental to tackle these shortcomings and make political will effective on the ground. Policy responses will only be viable if they are coherent; if stakeholders are properly engaged; if well-designed regulatory frameworks are in place; if there is adequate and accessible information, and if there is sufficient capacity, integrity and transparency. Institutions need to adapt to changing circumstances, and policy continuity is key in the transition towards more inclusive and sustainable practices.

2. The identification of gaps, areas requiring urgent attention, risks and challenges:

– Access to safe water and sanitation:

Access to safe water and sanitation remains a priority: every day between 2 and 4 billion people are consuming non-potable, dangerous, and even deadly water (UN Water , 2012); while 1.8 billion people use water contaminated with faeces, and 2.5 billion people still lack access to sanitation (JMP 2012). Principal causes are:

- Insufficient consideration of the on-site sanitation systems by the planners, who consider only the sewerage systems
- Barriers (silos) between actors involved in the access segments (toilets and containment) and those involved in the evacuation, treatments and reuse segments
- Barriers between the sanitation and wastewater management sector and the urban planning and the other urban services.
- An overly restrictive framework that failed to recognise an approach of progressive improvement as well as discrepancies between desired effluent standards and the actual treatment processes available
- Lack of political understanding of the importance of the matters and will to resolve them
- Fragmented responsibilities between various ministers and local governments, which prevents action
- Deliberately neglected topic in global development discussion
- Sanitation is a costly service to provide and complex to finance. This is often exacerbated by political unwillingness to charge for the service.
- Lack of technical and managerial skills and capacities

– Education, capacities and training:

These are still insufficiently developed. This is true for both high and low levels of qualification. Globally, there are not enough skilled managers and field-workers to manage the small water cycle and the big water cycle, our water and sanitation services as well as our rivers, lakes and aquifers.

Urgent attention is needed to build the institutional, economic and technical means to develop education, capacities and training.

Gaps, priority areas of actions, risks and challenges are identified as follow:

- Staff cost of water and sanitation services and of basin organizations is very high
- Many operational problems come from lack of competencies at all levels : managers, technicians and also the large number of workers in the field
- Human capital is an asset, which has to be developed and maintained
- Funds assigned for training by governments, water utilities and funding institutions are insufficient
- Often donors finance only short term training programmes which do not enable long term capacity building of utilities staff

Achieving other SDGs will also help improve education, training and capacity building in the water sector. This includes:

- Target 4.7
- Target 4.b
- Target 4.c
- Target 12.8
- Target 13.3.

– Implementation of IWRM at all levels and cooperation in management of transboundary waters:

Implementation of IWRM can valuably support achievement of targets of SDG 6 and beyond.

Where there is no or insufficiently developed agreements or basin organizations on transboundary waters, the need for joint implementation of the two global freshwater conventions, challenges in ensuring accountability internationally and further development need of international law on transboundary groundwater management, it is very important that transboundary cooperation in water management is monitored and that there is a devoted global indicator for it.

Two indicators are being suggested to measure progress towards target 6.5, namely implementation of IWRM and transboundary cooperation:

1. One indicator on IWRM: indicator 6.5.1 “Degree of integrated water resources management implementation (0-100)” (consideration of UNEP as in charge of the indicator)
2. One indicator on transboundary water cooperation: indicator 6.5.2 “Proportion of transboundary basin area with an operational arrangement for water cooperation” (consideration of UNECE and UNESCO-IHP as in charge of the indicator).

Considering the challenges facing water management in a transboundary context, as described above, it is important to maintain the level of ambition of indicator 6.5.2, measuring implementation and assessing the extent of cooperation and the arrangements for it being operational.

– Water cultures, justice and equity:

The discussion platform on Water Cultures, Justice and Equity that took place during the 7th World Water Forum in 2015, enabled various stakeholders to meet and discuss how to best ‘ensure that

no one is left behind' in the management and governance of water around the world and across communities. Identified key issues included:

- Indigenous leaders, along with a growing number of civil society organizations, religious have been advocating that in addition to the human right to water, water is considered by many as a sacred and spiritual element which has its own rights (e.g. the Whanangui River in Aotearoa/New Zealand): notably to be protected to improve more harmonious co-evolution between human society and nature. Many Indigenous Nations regard the Earth as a living entity with rights to be clean and healthy.
- Although climate change and global systems have created great health disparities and access to clean water in Indigenous Nations and their communities, solutions are found in traditional knowledge and practice.
- While many conventions, declarations and laws already exist regarding water rights at large theri implementation is still far from optional (e.g., the 2007 UN Declaration on Rights of Indigenous Peoples, and the 2010 General Assembly Resolution on the Human Right to Water and Sanitation, etc.), implementation and enforcement are weak.
- Women and men together underlined the challenges related to the representation of women in the decision-making process of the water sector and put emphasis on the need to improve capacity-building but also address discrimination to move forward in that direction.
- The advantages of learning from, applying and protecting water heritage and sustainable traditional water management systems, such as qanats/foggaras for example, were also emphasized.

– Water and energy:

Gaps, priority areas of actions, risks and challenges are identified as follow:

- Efficiency: Waste less water and energy –improve the efficiency of water-energy systems across sectors (water supply, wastewater, irrigation, energy provision, etc) – to cope with increasing demand on water and energy.
- Sustainability: Sustainable planning, building and operating of water and energy infrastructure while preserving and improving water resources, the ecosystems they support and social aspects.
- Governance: Stakeholders across sectors are empowered to participate in decision-making, cooperate and share information to foster resources and maximize sharing of benefits.

Business risks easily stem from the disruption in water and energy sectors and thus cause serious economic problems. Water and energy scarcity means there will be insufficient resources to maintain production of many goods. Price fluctuation of water and energy can raise product costs and disrupt supply chains. Water pollution and pollution caused by energy production can jeopardize local residents' health and undermine companies' reputation.

There have been a few opportunities that enable consensus among CSOs, enterprises, governments and high-level officials at national or international level. There should be more chances where different levels of movements can join to discuss hand in hand.

In order to accelerate implementation, there should be a guideline for each actor to take reference to. At the moment, a mechanism does not exist that can hold stakeholders accountable for making no action.

– Water governance:

Water management it is both a local and global public good; it is more fragmented than other natural resources area and infrastructure sector; it has many externalities on other domains critical to poverty alleviation (energy, agriculture, urbanisation etc.); and it is at the crossroad of public health, revenue distribution and territorial development. These intrinsic, and quite unique, characteristics make water management particularly vulnerable to governance challenges:

- Water cuts across administrative boundaries, be it local, provincial or even national. Hydrological perimeters often do not coincide with administrative ones and raise the question of the relevant scale at which water resources and services should be managed. The international community has been advocating for basin (rivers, aquifers, lakes) and many countries have set up river basin organisations in the last decades. The question of their effectiveness in achieving intended outcomes (and supporting the implementation of a water SDG) is legitimate and requires thorough assessment of their capacity (expertise, financial resources, staff) to carry out their duties properly.
- Water-related tasks are fragmented across authorities and levels of government which raises the question of vertical and horizontal coordination for effective implementation of a water SDG. A whole of government approach that goes beyond “silos” is needed not to jeopardize the implementation of the water SDG. This implies often a full-fledge national strategy and commitment at the highest level to tackle the water challenge, which also embarks local authorities and the broader range of stakeholders in the implementation.
- Information is power. Information is the new currency. Improving access to WSS and managing WRM more effectively requires precise, accurate and up-to-date information on water demand and availability, users’ registry, water permits, water risks, who pays for what, the status of networks and infrastructure, but also in terms of who does what and who is held accountable for what. In practice, many countries are still lagging behind and a huge asymmetry of information exists between authorities, end users, service providers and other stakeholders, be it voluntary or not. Though progress has been made in terms of hydrological data and water information systems have spread across the globe, much remains to be done in terms of socio-economic and financial data to guide decision-making in the water sector.
- Capacity in terms of human resources, expertise and infrastructure remains a major challenge. Designing and implementing water policies with a view to reach the SDG targets requires resources and knowledge. In many countries, water managers (service providers, river basin organisations, and other authorities) do not have the proper means to carry out their responsibilities in the sector. Implementing a dedicated water SDG requires

transferring these resources and providing the needed technical and financial assistance for those in charge to deliver effectively.

- Increasing the number of people with safe access to drinking water and sanitation and meeting more and more stringent environmental regulations will require financial resources. Three ultimate sources of revenues exist in the sector: taxes, tariffs and transfers from international development. The share of these is a political choice, taking into account issues of economic efficiency, social equity, environmental sustainability and affordability constraints. The call for sustainable cost recovery requires increasing attention on user's fees for sustainable water management. In many countries bill collection is a primary issue to tackle before increasing tariffs. ODA flows also raise absorption capacity in recipient countries.
- The multiplicity of stakeholders in the water sector makes it vulnerable to lobbying, and risks of capture which can freeze decision-making. If a water SDG can certainly be conceived as a universal, aspirational goal, its effective implementation will require managing a number of trade-offs between diverging objectives, interests and priorities. Decisions taken in other sectors like agriculture (e.g. subsidies to farmers) can work against water policy while not incentivising rational use of water resources. Similarly, those who take decisions about spatial planning (urban dwellers, property developers) generate future liabilities for which they do not always bear the costs. These split incentives have to be managed for a holistic implementation of a water SDG. This implies flanking measures and compensation mechanisms, where need be, to transition.

  Many countries are going through a crisis of trust in their governments. The Arab spring has been an emblematic example in the last few years. Often, the capacity of governments to deliver quality public services at an affordable cost is an indicator of accountability vis-à-vis citizens. Issues of transparency and integrity are also important in a sector that has a high degree of monopolistic behaviour. Implementing a water SDG will require an enabling and regulatory environment that allows monitoring and assessing progress in a transparent and inclusive way. Engaging all stakeholders at different levels from information to partnerships or co-decision according to the needs, also stands as a prerequisite for effective buy-in and accountability.

3. Valuable lessons learned on ensuring that no one is left behind:

During the 7th World Water Forum in 2015, stakeholders gathered and discussed in order to identify and devise several actions, on different fronts, which should be taken in order to overcome challenges to the SDG implementation:

- Capacity building will be critical at the individual, institutional and societal level. It will require providing the enabling environment (institutional and legal arrangements) to strengthening knowledge transfer and skill development, in particular to empower local actors and citizens. Efforts developed in education, training and capacity building should not be limited to basin organizations and water and sanitation services. It should also include government and its agencies, as well as private actors managing water in there day to day activities without being identified as "water organizations" (farmers, thermal plant managers, etc.). Laws and institutions must be developed to foster education and training. For instance, there is a need to get laws on the minimum percentage of the budget of organizations managing water (either water and sanitation services or basin organizations). There is also a need to create and develop training centers for water professionals.
- Access to basic sanitation should be approached in an integrated way, considering the whole sanitation chain and the different sanitation systems (on-site / sewerage systems, centralised / decentralised systems. Moreover, sanitation and wastewater management have to be considered in the framework of the urban planning and development
- Developing more integrated approaches to water resources management will help address the needs of all actors, including the environment, at the appropriate scale. It can help reduce path dependency and encourage the formulation of innovative and forward-looking water strategies across policy fields and territorial and institutional levels.
- For IWRM and transboundary cooperation, valuable lessons learned on ensuring that no one is left behind include:
    - Sustainable funding mechanisms and feed-in water tariff in line with the polluter/user-pays principles need to be set up to ensure incentive for water protection (deterring pollutant discharges) and conservation (deterring waste of water resources) and to avoid relying on punctual development aid programs,
    - Basin organizations need to be created and strengthened through programs of institutional capacity building in order to ensure they deliver performant services,
    - Staff of basin organizations need to benefit from regular training programs in order to update their qualifications and make the most of their water infrastructure/equipment,
    - Water Information System (WIS) and water monitoring networks need to be developed as it is impossible to manage well what you cannot measure.
- Fostering nexus approaches (e.g. between water and energy, water and food) can contribute to adopting a coherent mix of policy instruments across water-related policy fields, support discussion among different users (e.g. domestic, industrial, agricultural) and devise coordinated strategies in addressing pollution issues.
- Increased engagement between the water and energy sectors can help to determine co-benefits and pathways to water-energy efficiency. For example, key players (e.g. EDF, IWA, World Bank, WEC) have played an active role in convening stakeholders to increase awareness of the interlinkage and interdependencies between water and energy.

- Strengthening safety regulation dealing with water-related risks will be instrumental to better plan, development and monitor mitigation measures and ensure resilience of societies and the environment. This will imply sound enforcement and compliance mechanisms, accurate and consistent data and better disclosure of information to the public.
- A systemic approach is also needed to better cope with risks and ensure a water secure world. Water risks are often interlinked and spill over other policy sectors (drought in agriculture, flood in land planning, modified freshwater systems for hydropower, etc.). More holistic decision making process regarding water security management can help in achieving win-win outcomes across various sectors. In order to put into action, various stakeholders should be involved.
- As climate changes agreement did at COP21, there is a demand for stronger responsibility so that all governments are more responsible for actions.
- Among the principal lessons identified for decision-making processes to ensure that no one is left behind are:
    - Research, identify and integrate in the process, well ahead of the decisions, all parties likely to be affected and to make free, prior and informed consent a condition sine qua non. This will optimize the scope of projects and policies, reduce the likeliness of user conflicts and foster generally sustainable solutions.
    - Identify, document, and articulate the priority values of diverse stakeholders regarding water resources, and develop a consensus statement of "water ethics" outlining the value principles which should guide water development. This process could be applied at the level of cities, watersheds, river basins, or countries.
    - Give preference to water management practices that can result in multiple types of benefits (e.g., crop production, employment, domestic water, ecosystem health, cultural heritage, etc.).[1]
    - Recognize, safeguard, promote and implement traditional water knowledge, ethics, management systems and related heritage, and consider that their sustainability can contribute significantly to reaching SDGs.
- Stakeholder engagement and effective partnerships are powerful means to prevent conflict, manage trade-offs, raise awareness and build inter-sectoral complementarities at the right scale, reducing also the cost of water management. Stakeholder engagement can also help to address territorial and institutional fragmentation in the water sector, align divergent objectives and move away from path dependency. Participatory mechanisms can contribute to overcome disparities in service provision and help policy makers to focus on inequity. The implementation of the water goal will therefore require the coordination of actors across ministries and between the national, regional, local and basin levels to create multi-dimensional, multi-generational and trans-scalar approaches.

[1] The principle of "multifunctionality" is elaborated in a recent policy paper by Netherlands Enterprise Agency, 2016. *Reinventing Multifunctionality: Combining goals, sharing means, linking interests*. http://english.rvo.nl/sites/default/files/2016/03/Reinventing%20Multifunctionality.pdf

- Some experiences in the field of water have shown that collective decision making within multi-stakeholder structures are particularly relevant to the principle of "ensuring that no one is left behind". By implementing integrated water resources management, these organisations help to establish public policies adapted to the environmental and socio-cultural realities of the countries/regions concerned. We can therefore find the same conditions of participation, solidarity and integration, which benefit water resources and the populations that use them.
- Global knowledge and operational experience need to be better interconnected in order for good practices in the water sector to be scaled-up and replicated, and also to learn from experiences in other sectors facing similar challenges (e.g. other sectors exposed to risk like energy or agriculture.)
- Place-based approaches to the implementation of the water SDG will be critical to articulate a universally applicable goal with countries dealing with different water challenges (scarcity, floods, critical pollution, ageing or inexistent infrastructures). Diverse organisational and financial resources will be needed to match countries' priorities and needs. Implementation strategies regarding the water SDG should therefore remain flexible and adaptive to changing circumstances, as well as resilient and forward-looking.
- The water targets provide countries with common goals, benchmarks and standards for progress, not only aspirational but also to mobilise concrete actions. As such, countries need robust evaluation systems to track the effectiveness of their institutions in delivering the expected outcomes of the water goal and measure what needs to be improved. Promoting the use of monitoring, evaluation systems and indicators is therefore fundamental for information sharing, transparency and accountability. Countries may be nervous about extensive monitoring systems while others may lack the capacity to adopt advanced indicators for assessing progress. Creative suggestions for these monitoring and assessment challenges will be needed and could include developing reviews based around specific challenges (drought prone areas, declining river basins, etc.) to facilitate best practices for evaluation, developing more monitoring capacity at the various level, or developing new monitoring concepts.

4. Emerging issues likely to affect the realization of this principle:

- Climate change:

It is now widely acknowledged that climate change will impact certain places and people more than others. People living in vulnerable places such as cities and coastal areas for instance are often more affected by lack of water, heatwaves or floods than other people. Following the Paris COP21 agreement, billions of dollars will be invested every year in adaptation. From a moral and humanitarian point of view one of the major challenges is investing in adaptation and development while reducing poverty and in-equity.

And these trends will only keep increasing. First, because climate change is expected to hit even harder in the coming decades. Second, because government policies often fail to adequately assist those most at risk. Third, because the conjunction of these first two factors, climate change and inadequate policies, will leave room for social and environmental crisis, such as current inflows of

migrants into Europe for instance, to create even greater impacts. There proves to be a clear cost of inaction in this respect, urging governmental attention.

Three additional issues are likely to affect the realization of this principle: migration, territorial reforms and legal frameworks. The current migratory crisis is adding millions of people to the list of people who can potentially be left behind. Yet current political responses are insufficient and often inadequate. Territorial reforms taking place in developing and developed countries (e.g. Morocco, France, Tunisia), transfer a number of responsibilities to sub-national governments, including responsibilities directly affecting the most vulnerable people such as stakeholder engagement or the provision of basic services. Yet sub-national governments often lack skills and resources to carry out such responsibilities. Finally, even though legal frameworks, such as the Water Framework Directive for instance, support the realization of this principle, implementation is often lagging behind and little guidance exists on how such frameworks should unfold on the ground.

The impacts of climate change are likely to affect the principle of "ensuring that no one is left behind" for all SDGs, not only the dedicated water SDG.

The water cycle is part of the problem. Indeed, climate change mainly results in changes of the water cycle: more frequent and devastating floods and droughts, erratic rainfall, melting glaciers or salinization of coastal groundwater due to rising sea levels.

Water management is part of the solution. Improving it through training, education and capacity building can help build more resilient societies and make the most of their financial and human resources (provided that lessons learned and identified recommendations are implemented).

IWRM and good transboundary water cooperation can also support the achievement of goals other than Goal 6, notably Goals 2, 7 and 15. However, there are trade-offs: Measures to ensure food security or improve sustainability of energy by renewable energies including hydropower have impacts on water use and hence achievement of Goal 6.

Moreover, pollution and land use changes, are severely affecting the livelihood of rural communities. New investments (e.g., large dams) aimed at addressing water insecurity and energy needs can have disproportionately negative impacts on the rural poor whose interests are under-represented in the policy-making process. And as climate change reduces overall water, in many poor regions women and girls will carry an even greater burden as water suppliers at household level.

- Water and energy
    - There are very different institutional settings, policy frameworks and governance structures.
    - The energy sector is more market based and often the domain of private companies at national and global scale, whereas the water sector is dominated by small utilities acting within regulated markets at the local, municipal level.
    - Both water and energy systems have been designed under the assumption that both resources would continue to be cheap and abundant

- Continued distortions in the different sectors through perverse subsidies and the lack of incentives

– Global partnership and finance

It is important to secure finance and connect global partnership. For example, in March 2016, K-water led to establish Asia Water Council (AWC) to consolidate partnership in Asia. It is an international water institute mainly led by Korea which has diverse members from many countries requiring active support from governments. Through this process, international cooperation can be facilitated and further issues regarding funding can be discussed. Given that there is a big challenge and a room for improvement with regard to SDGs in Asia, strong supports for AWC are required.

5. Areas where political guidance by the High-level Political Forum on Sustainable Development is required:

– The High-level Political Forum on Sustainable Development has to keep in mind that water is a connector, not a sector: therefore it must be considered in every SDG/indicator, including other cross cutting issues like gender and minority rights.

– Political guidance is required to assess performance of organizations in charge of basin management and of water and sanitation utilities; assess the benefits of training water professionals; increase funds dedicated to training of water professionals (e.g. in development aid, percentage of total expenditures of organizations in charge of water services and basin management).

– Financing is the area where the political guidance by the High-level Political Forum on Sustainable Development is most needed. Technical solutions exist and the methodologies and tools to establish good water governance are also well identified. But the issue of financing remains unsolved. For Agenda 2030, the objective should be to mobilize financial resources of development aid for the establishment of sustainable financing mechanisms providing financial autonomy to the institutional and legal arrangements made for IWRM and transboundary cooperation. The HLPF on Sustainable Development is a position to provide donors this political guidance.

– An overarching control tower or task force team should be established that is dedicated to setting national indicators. In case of climate change, there exists a guideline on adaptation measures demanding all stakeholders' participation, including: ministry, local government and state enterprise. In case of SDGs, there seems to be no overarching control tower at national level, but diverse actors are separately implementing voluntarily.

– The High-level Political Forum on Sustainable Development may wish to support the systematic integration of stakeholders representing a wide range of water cultures in these processes, reaching from indigenous community leaders to social and legal specialists, and including specific focus on the representation of women and the safeguarding of traditional water management techniques and related heritage. Most particularly, existing UN guidance such as the 2007 Declaration on the Rights of Indigenous Peoples, e.g., "to determine and develop

priorities and strategies for the development or use of their lands or territories or other resources" (Article 32) should be explicitly incorporated into water policies and development plans. We can only hope to reach the SDG and induce lasting change if the SDG implementation is based on the mutual understanding and cooperation among diverse cultures, within or across communities or boundaries. Policy choices and legislation on water must take into account values and ideals, traditional and institutionalized formal and informal social practices.

- Traditionally, water and energy issues are treated in isolation. Therefore, it is significant to recognise the network of inter-linkages between water and energy. The water-energy nexus pushes us to establish cross-sectoral cooperation and enhance communication and data sharing, so as to maximize the synergies and avoid trade-offs between the two sectors, which will help us find ways to provide accessible, affordable and acceptable water and energy resources for all (for instance, multi-purpose hydropower infrastructures) and make contributions to the sustainable economic development, poverty reduction and the social and individual well-being.

- To set the enabling environment for the effective implementation of the water SDG, governance tools and good practices already exist in the water sector. There are a wide variety of guidelines, instruments, and publication that support better governance in the water sector. In an effort to compile these resources, an Inventory was prepared by the OECD Water Governance Initiative and gathers more than 100 governance tools, water and non-water specific, around 4 thematic building blocks: stakeholder engagement; performance and governance of water supply and sanitation; basin governance; and integrity and transparency. The key is to scale up their implementation and tailor them to specific contexts.

  The High-level Political Forum on Sustainable Development can contribute to set-up the institutional landscape within which the SDG can be achieved. As such, it can play a critical role to translate the global water SDG into national policy frameworks and agendas for water, mobilise dedicated funding and set incentives to hit the targets. However, whether the water-related goals are successfully reached may depend, in a large part, on the abilities of the High-level Forum to engage the wide range of stakeholders concerned with the SDGs. Engaging a broad range of stakeholders provides them with opportunities to be part of the solution and share views and priorities, raise awareness on water risks and costs, foster production of services and policy, manage trade-offs related to water allocation, and prevent or solve conflicts over water use.

  Identifying who can do what to support the implementation of the water SDG is an important step to capture the contribution that each category of actors can make, but also to bring attention on how they interact with each other and how they can develop mutually-supportive initiatives to hit the water-related targets in the different themes:

  - Business' contribution in implementing the water goals can take the form of investments in infrastructures and innovative technologies to improve water efficiency and better manage water-related risks.
  - Civil society encompasses a variety of players, from local informal to more formalised community-based organisations and NGOs, and includes unheard voices such as women,

youth, indigenous communities and the poor. They can contribute to the implementation of the water SDGs through advocacy, information-sharing on local realities and needs, social mobilisation, and local development through capacity building, awareness-raising.

- Academia can contribute to produce and share technical and scientific information and evidence to build a sound knowledge-base in support of the formulation of policies, decisions, strategies and tools for the implementation of the water-related goals.

6. Policy recommendations on ways to accelerate progress for those at risk of being left behind:

– IWRM

- Strengthen the place of water in the public and private funding mechanisms, including those supporting adaptation to climate change
- Strengthen civil society consultation mechanisms in the decision making process.
- Promote multi-stakeholder structures such as basin organisations to strengthen the exchange of knowledge and experience, without acting to the detriment of a population or category of stakeholders.
- An overarching control tower or any task force team at a national level should be established together with a guideline to encourage all levels' participation. It may be possible to constitute a task force team at each goal level or several integrated goal level.

– Capacity building and education

➢ Capacity building and development of vocational training in the water sector:

- Reinforce awareness of the importance of vocational water training in development strategies and programmes.
- Integrate vocational training into investments.
- Encourage the widespread use of good practices and innovative, appropriate solutions in vocational training.
- Support the creation of new water training centres throughout the world and strengthen existing ones.
- Devise common training tools and improve educational practices.
- Develop skills and increase the number of human resources in the fields of basin management, water supply and sanitation.

➢ Backing vocational training with sustainable financial mechanisms:

- Fund training by making investments in relation with new or rehabilitated works.
- Create "Earmarked Funds" at national level for developing vocational training; this could be funded by taxes, by contributions pro-portional to companies' total wage bill, or by a percentage of the water sale price.
- Promote (through standards, certifications, requirements of tenders and call for proposals) sustainable self-financing strategy for staff training of water and sanitation utilities,

- Promote (through standards, certifications, requirements of tenders and call for proposals) the dissemination and use of existing performance indicators for water and sanitation utilities and their staff (e.g. Aquafed indicators), ultimately in order to assess the benefits of professional training,
- Promote (through standards, certifications, requirements of tenders and call for proposals, lobbying) the inclusion of staff training in water operators budgets at a minimum of 2% of the total wage bill,
- Encourage international donors to dedicate 5% of their water and wastewater investments to training,
- Support existing networks dedicated to training of water professionals (International Network of Water Training Centers, Cap-Net, etc.), and promote the development of regional components,

➢ Incorporating vocational training into human resource development strategies:

- Consider training as an essential component of human resource management.
- Develop skills in line with career progression.
- Systematically draw up long-term training plans both nationally and within water companies.
- Training bodies are vital partners for human resource managers in implementing this strategy. For this reason, it is important to instigate collaborations between training centres and water companies to spread and share experiences on the field and transfer practical knowledge.

➢ Making use of specialized bodies with the appropriate capacities and educational tools:

- Define terms of reference for training, with quantifiable requirements on quality, professionalism and efficiency.
- Define performance indicators that make it possible to assess the impact of training and the actual return on investment.
- Adopt a genuine training development approach.

– Transboundary water cooperation:

- Implement the two transboundary water conventions in a coherent and synergetic manner,
- Promote and finance globally capacity building on international water law,
- Promote and finance globally capacity building on Water Diplomacy,
- Promote and finance globally the institutional capacity building of transboundary basin organizations (mandates, structures, means),
- Provide financial support to emerging transboundary basin organizations,
- Promote sustainable, self-financing of transboundary basin organizations through contributions from riparian countries and regional economic commissions,
- Provide technical support for water monitoring networks development in transboundary basins and promote the exchange of data/information between riparian States,

- Promote and finance training programs on integrated water resources management in a transboundary context for diplomats, negotiators and professionals of basin organizations,
- Carry out awareness campaign targeting the stakeholders and the general public on the benefits of cooperation and transboundary basin organizations.

– Water Culture, justice and equity

The discussion platform on Water Cultures, Justice and Equity that took place during the 7th World Water Forum in 2015 issued the following recommendations:

- to promote social learning to better understand the role of human behaviour and cultural beliefs and attitudes toward water and its management;
- to raise awareness among water professionals and decision-makers about the intricate but yet often ignored relevance of heritage for water management and development;
- to foster involvement at all levels in management and implementation of water policies and programs, especially the involvement of women and indigenous communities;
- to foster the recognition and understanding of diverse perspectives on water, water rights and legal frameworks for them to be better understood and embedded in cooperative mechanisms;
- to present the concept of water ethics as a practical tool for setting higher standards for the water sector, and to build the capacity of civil society groups, local governments, and national water agencies to develop water ethics charters which can guide local water policies and programs ;
- to integrate complex cultural, spiritual, economic and environmental functions of water to improve water management and reach water security and sustainable development for all;
- to include and ensure participation of grassroots organizations in planning, implementation and monitoring of 2030 Agenda at local and national level;
- to finance and foster capacity building for women water groups, incl. Indigenous Peoples;
- to guarantee accessibility of gender disaggregated data and ensuring all SDG indicators, plans, budgets and monitoring programs for gender-responsive implementation of Agenda 2030;
- Develop pilot case studies on sacred river basins, e.g. Amazone, Ganges, White Brotherhood sacred 7 Rila Lakes, etc.
- to enshrine in national constitutions the UNDRIP;
- to create educational programs regarding the implementation of UNDRIP and traditional laws about water.

– Water and energy

Policies should obligate and/or incentivise the implementation of efficient technologies, good governance models, and creative investment instruments to enable water and energy efficiency.

– Water Governance

Theme 4.2 of the 7th World Water Forum have endorsed the OECD Principles on Water Governance, which provide guidance to strengthen institutions' implementation capacity in order to reap the

economic, social and environmental benefits of good governance, in partnership with the broader range of stakeholders, within and outside the water sector. As such, the 12 Principles can serve as a framework of reference which all stakeholders can use to assess how they are performing in setting the enabling environment for reaching the SDGs:

- Clearly allocate and distinguish roles and responsibilities for water policymaking, policy implementation, operational management and regulation, and foster co-ordination across these responsible authorities.
- Manage water at the appropriate scale(s) within integrated basin governance systems to reflect local conditions, and foster co-ordination between the different scales.
- Encourage policy coherence through effective cross-sectoral co-ordination, especially between policies for water and the environment, health, energy, agriculture, industry, spatial planning and land use
- Adapt the level of capacity of responsible authorities to the complexity of water challenges to be met, and to the set of competencies required to carry out their duties
- Produce, update, and share timely, consistent, comparable and policy-relevant water and water-related data and information, and use it to guide, assess and improve water policy
- Ensure that governance arrangements help mobilise water finance and allocate financial resources in an efficient, transparent and timely manner
- Ensure that sound water management regulatory frameworks are effectively implemented and enforced in pursuit of the public interest
- Promote the adoption and implementation of innovative water governance practices across responsible authorities, levels of government and relevant stakeholders
- Mainstream integrity and transparency practices across water policies, water institutions and water governance frameworks for greater accountability and trust in decision-making
- Promote stakeholder engagement for informed and outcome-oriented contributions to water policy design and implementation
- Encourage water governance frameworks that help manage trade-offs across water users, rural and urban areas, and generations.

An effort towards greater measurements of water governance aspects at different levels of governance will help to identify gaps and look for adjustments when needed. The OECD is developing a set of OECD water governance indicators that can help local and upper levels of government assess where they stand in terms of managing water, and whether their governance structures are well-equipped to handle pressing and emerging challenges.

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