



## 第七十一届会议

### 第二委员会

#### 议程项目 19(a)

可持续发展：《21 世纪议程》、《进一步执行〈21 世纪议程〉方案》以及可持续发展问题世界首脑会议和联合国可持续发展大会成果的执行情况

### 2016 年 9 月 7 日塔吉克斯坦常驻联合国代表给秘书长的信

谨随函转递由塔吉克斯坦政府和联合国经济和社会事务部发起、于 2016 年 8 月 9 日和 10 日在杜尚别举行的关于可持续发展目标 6 和具体目标的高级别专题讨论会：确保在获得水和环境卫生方面不让任何一个人掉队的成果文件（“行动呼吁”和“主席的总结”）(见附件)。

讨论会力求提供一个平台，以便重点、均衡地讨论有关政策措施、行动和执行手段，以期快速执行关于水的可持续发展目标和相关具体目标，包括由塔吉克斯坦提议、目前正在审议的“可持续发展之水”国际行动十年。

来自 90 个国家的高级别代表团和代表参加了讨论会，其中包括来自 47 个国际和区域组织（包括联合国及其 17 个专门机构和方案）以及地方政府、非政府组织、学术机构和私营部门的代表。总共有超过 700 人参加了为期两天的讨论，讨论的议题既是一个最迫切的问题，也是《2030 年可持续发展议程》中最宏大的目标之一。

主要讨论随后在一些会员国、联合国系统各专门机构和实体及国际金融机构共同组织的八个专题会议上继续进行。这些专题会议重点讨论对于实现可持续发展目标 6 具有重要作用的特定事项。在此期间，会上讨论了目标 6 的每项具体目标：

(1) 采取多利益攸关方伙伴关系举措，促进可持续发展目标和“可持续发展之水”十年；



- (2) 人人普遍和公平获得安全和负担得起的饮用水;
- (3) 人人享有适当和公平的环境卫生和个人卫生;
- (4) 提高用水效率;
- (5) 水资源综合管理;
- (6) 保护和恢复与水有关的生态系统;
- (7) 减少污染以改善水质;
- (8) 建立新的和创新性用水合作机制, 促进可持续发展。

此外, 全球、区域和国家行为体举办了四次会外活动。这些活动为在各级更广泛地讨论与可持续发展目标 6 及其具体目标有关的各种问题提供了另一种平台。这些会外活动对专题讨论会作出了重要贡献。

专题讨论会的成果文件是“杜尚别行动呼吁”, 它呼吁国际社会深化在各级和贯穿各部门的合作, 以期处理紧迫的水问题, 提高各国水资源综合管理的执行和监测能力, 并考虑拟议的“可持续发展之水”国际行动十年能为 2030 年实现目标 6 和与水有关的各项具体目标提供哪些进一步支持, 从而促进总体的公平和可持续发展。

专题讨论会显然取得了成功, 这很大程度上归功于所有参与者共同作出的协调努力, 他们促进了目标 6 及其具体目标的落实工作。

塔吉克斯坦政府将把“杜尚别行动呼吁”与主席的总结一并提交大会第七十一届会议, 供其进一步审议。

请将本信及其附件作为大会议程项目 19(a)下的文件分发为荷。

常驻联合国代表

马哈马达明·马哈马达明诺夫(签名)

2016年9月7日塔吉克斯坦常驻联合国代表给秘书长的信的附件一

关于可持续发展目标 6 和具体目标的高级别专题讨论会：确保在获得水和环境卫生方面不让任何一个人掉队

2016年8月9日和10日，杜尚别

行动呼吁

欢迎通过《2030年可持续发展议程》，包括其中的可持续发展目标 6：“为所有人提供水和环境卫生并对其进行可持续管理”，并强调指出水和环境卫生至关重要，是促进可持续发展和消除贫穷的基石，

基于除其他外联合国大会、联合国可持续发展委员会和联合国可持续发展问题高级别政治论坛有关水和可持续发展问题的各项进程、《21世纪议程》、千年发展目标 and 可持续发展目标以及“生命之水”国际行动十年(2005-2015年)、2008国际环境卫生年和2013国际水合作年取得的成就和经验教训，

赞扬2016年8月9日和10日在杜尚别举行的关于可持续发展目标 6 和具体目标的高级别专题讨论会：“确保在获得水和环境卫生方面不让任何一个人掉队”期间举行的多利益攸关方讨论以及这个旨在确保在获得水和环境卫生方面不让任何一个人掉队并到2030年实现可持续发展目标 6 和与水有关的具体目标的平台所作的贡献，

表示赞赏联合国发挥作用，支持可持续发展目标 6 的制定和执行工作，推动为所有人提供和管理水和环境卫生的工作取得进展，包括支持在各国逐步实现享有安全饮用水和环境卫生的人权，并表示赞赏联合国秘书长和世界银行行长发挥领导作用，成立水问题高级别小组，以期动员采取有效行动，加快落实可持续发展目标 6 和与水有关的具体目标，并在联合国大会继续支持水之友小组，

承认在提供水和环境卫生方面取得了很大进展，给世界各地的人类发展带来重大惠益，

认识到仍有许多工作要做，不仅应与仍需取得重大进展的区域和国家而且应在各国国内进行外联，确保即便是儿童、妇女和边缘群体等最弱势民众、生活在偏远地区和冲突地区的民众以及易受灾害和极端事件影响的弱势人群，都能获得可接受和可用的水和环境卫生，

表示关切的是，用水管理不当、不可持续的发展、气候变化和其他因素造成的更多不确定性和风险正在威胁许多生态系统，它们提供的许多生态系统服务也因此面临重大风险，

认为污染是造成水质大范围下降的主要原因之一，预防污染与修复污染造成的损害相比，成本效益高得多，

深信提高用水效率和拥有适当的结构性和非结构性基础设施是确保为所有人提供水和环境卫生并对其进行可持续管理的核心要素，这要求综合运用贯穿各部门的用水效率规划、水资源保护、创新性技术解决方案、储水、绿色基础设施、融资和善政以及除其他外加强性别平衡、提高政策有效性、最大限度实现投资(包括但不限于基础设施投资)的资金价值以及明确饮用水和环境卫生服务的提供成本，包括所有正面和负面的社会、经济和环境外部性成本，

重点指出水资源综合管理和兼顾所有流域和含水层中水、粮食、能源和环境之间相互联系的办法在所有各级发挥关键作用，需要支持执行工作，特别是在最不发达国家、内陆发展中国家和小岛屿发展中国家，还需要在跨境合作和减少灾害风险方面支持执行工作，

强调指出需要《2030年发展议程》设想的且适合地方具体情况、实地局势和治理情况的全社会参与和伙伴关系，因为“一刀切”和自上而下的解决办法往往不能产生预期成果，

承认为促进协商和加强水与可持续发展伙伴关系而建立和维持有效和高效的多利益攸关方平台经历了漫长过程，

参加关于可持续发展目标6和具体目标的高级别专题讨论会的各国政府、国际组织、地方政府和民间社会代表，

呼吁国际社会：

(1) 深化在各级和贯穿各部门的合作，加强和创建有效的多利益攸关方倡议，以支持落实可持续发展目标6和与水有关的具体目标；

(2) 解决紧迫的水问题，包括但不限于，水资源日益匮乏、与水有关的灾害、与水有关的环境问题以及新的变异模式和更多的风险和不确定性；

(3) 提高各国在地方、国家和区域一级执行和监测水资源综合管理计划的能力，具体途径包括改善与筹资、技术、能力建设、数据和信息获取有关的机构和伙伴关系；

(4) 考虑拟议的“可持续发展之水”国际行动十年能为2030年实现可持续发展目标6和与水有关的具体目标提供哪些进一步支持，从而促进总体的公平和可持续发展；

鼓励各国政府和其他利益攸关方基于主席总结所载列的专题会议和会外活动成果，在可能的情况下将所述愿景转化为具体行动；

建议塔吉克斯坦政府将本“行动呼吁”与主席关于专题讨论会的总结一并提交联合国大会进一步审议；

表示衷心感谢塔吉克斯坦政府和联合国经济和社会事务部举办本次关于可持续发展目标6和具体目标的高级别专题讨论会以及给予所有与会者的热情欢迎和盛情款待。

## 2016年9月7日塔吉克斯坦常驻联合国代表给秘书长的信的附件二

### 关于可持续发展目标 6 和具体目标的高级别专题讨论会：确保在获得水和环境卫生方面不让任何一个人掉队

2016年8月9日和10日，杜尚别

#### 主席的总结

A High Level Symposium on SDG 6 and Targets “Ensuring that No One is Left Behind in Access to Water and Sanitation”, initiated by the Government of Tajikistan and the United Nations Department for Economic and Social Affairs, met in Dushanbe, Tajikistan, on 9-10 August 2016. The Symposium sought to provide a platform for focused and balanced discussion on policy measures, actions and means of implementation to fast-track implementation of the water SDG and related targets, including an International Decade for Action “Water for Sustainable Development”.

High-level delegations and representatives came from 90 countries, including representatives of 47 international and regional organizations, such as the United Nations and 17 of its specialized agencies and programs, as well as representatives of local governments, non-governmental organizations, academic institutions and the private sector. In total, more than 700 people took part in two days of discussion about one of the most pressing issues and ambitious goals of the 2030 Agenda for Sustainable Development.

During the opening ceremony of the Symposium, the President of the Republic of Tajikistan, Mr. Emomali Rahmon emphasized the importance of SDG 6, which is about everybody’s access to water and sanitation. This goal also covers the issues of water quality, its efficient use, implementation of integrated water resources management, protection of water ecosystems, as well as expansion of water cooperation and partnerships, and is related to several other SDGs, making water a key element in the new development agenda. With regard to the newly proposed International Decade for Action “Water for Sustainable Development”, President Rahmon expressed hope that this initiative would help attract more and comprehensive attention to the implementation of SDG 6. Moreover, he expressed hope that the newly established High Level Panel on Water would play a significant role in discussion and consideration of the key global issues on water, including climate change.

In his message delivered by Under-Secretary-General and High Representative for the Least Developed Countries, Small Island Developing States and Landlocked Developing Countries Mr. Gyan Chandra Acharya, the United Nations Secretary-General Mr. Ban Ki-moon underscored that water access is meaningless if it is not safe and sanitation is not for all if it is not equitable. He invited all partners to join forces to improve the management of the planet’s water resources, to transform the delivery of water and sanitation services for billions of people, to learn to work in partnership engaging all stakeholders, as well as to strengthen capacity building by helping foster an exchange of best practices and lessons learned. The opening ceremony of the Symposium was also addressed by the Chair of UN Water (in video message), by the Permanent Representatives of Finland (on behalf of Permanent Representatives) and Mauritius (on behalf of the Sherpas to the High Level Panel on Water) to the United Nations in New York, by the Secretary-Generals of the Economic Cooperation Organization and the Shanghai Cooperation Organization, by the Acting

Senior Director of the World Bank's Global Water Practice, as well as by the Vice-chair of the Global Water Partnership. These statements by different kinds of stakeholders gave a special focus to discussions.

The main discussions then continued within eight Thematic Sessions. They were co-organized by some Member States, various UN specialized agencies and bodies and international financial institutions. They focused discussions on the following issues that play an important role for the achievement of the SDG 6:

1. Multi-stakeholder partnership initiatives for the SDGs and the Water for Sustainable Development Decade;
2. Universal and equitable access to safe and affordable drinking water for all;
3. Access to adequate and equitable sanitation and hygiene for all;
4. Increase water-use efficiency;
5. Integrated water resources management;
6. Protect and restore water-related ecosystems;
7. Improve water quality by reducing pollution; and
8. New and innovative water cooperation mechanisms for sustainable development.

#### **1. Multi-Stakeholder Partnership Initiatives for the SDGs and the Water for Sustainable Development Decade**

The session addressed various levels of the issue, from substantive to institutional, from local to global. A wealth of partnership experience and lessons learned was presented with remarkable contributions to the water and sustainable development discourse, illustrating the complementary roles of different stakeholders in achieving SDG 6 and targets.

On the issue of partnership, the need to engage all relevant stakeholders was emphasized, as governments cannot do it alone. The importance to work with the grassroots and to ensure local ownership was stressed by all, as was the need to build capacity and knowledge for countries and communities to address their challenges. The importance of addressing the gender dimension of water for sustainable development was also stressed, as well as the importance of giving a voice to the most vulnerable populations and vulnerable groups of countries. Cultural aspects are also an important element in bottom-up approaches for sustainable water management. The water, energy, agriculture, food and nutrition nexus needs to be considered in the context of partnerships to make better use of existing resources. The development of community groups, from the bottom up, under the inspiring leadership, continuous support and guidance of NGOs, showed what civil society can achieve with a cross-sectoral approach and support from various stakeholders. The importance of the involvement of local authorities and the long process of building trust and capacity to form effective local partnerships was underscored. The importance of ownership was supported by a number of speakers, as well as the need to have commitment from all parties. This is essential for the sustainability of outcomes. The need for education, technology transfer and robust financing, as well as the need for vertical integration of policy making and implementation was also noted. The strategic vision of governments to develop IWRM and inclusive participatory water governance was put forward as the foundation of sustainable development. Strong leadership from academia and civil society complementing the leadership of government is very

important and can result in an institutionalized partnership of state and non-state actors. Moreover, this can be further developed at sub-national levels, as a framework for inclusive consultation and informed decision-making.

Additionally, partnership initiatives represent a structural approach to realizing universal access and integrated and sustainable water management. The importance of setting clear objectives for partnerships was emphasized, given the diversity of partners, as well as the importance of continued evaluation and self-assessment. Five criteria were suggested to assess partnerships: policy relevance, additionality, effectiveness, efficiency and impact. The added value of a global network to build global knowledge and facilitate and strengthen multi-stakeholder partnerships at all levels, such as the Global Water Partnership, was also demonstrated. Such partnerships are seen as vehicles for vertical integration, as well as important inputs for agenda setting and informed decision-making by the global leadership. Also, it was pointed out that partnership building is a long and elaborate process that requires sufficient human and financial resources. Pre-investment on social capital would lead to better returns on financial investments. The considerable capital losses of the past due to project outputs not reaching the intended beneficiaries and to systems not being maintained need to be prevented. In order to speed up the elaborate and often lengthy partnership process, GWP is developing a peer reviewing and peer learning mechanism for Multi-Stakeholder Partnerships on water and sustainable development, building on its 20 years of experience and in continuation of the process initiated during the Water for Life Decade.

Tajikistan pointed out the centrality of access to water and sanitation in achieving the SDGs, as evidenced in the stand-alone goal on water. It was underlined, however, that sustainable development could only be achieved when we consider SDG 6 in a holistic manner, as interlinked with all the other SDGs, as well as by using IWRM to ensure prudent and fair trade-offs about water for different users and uses. It was noted that the Water for Life Decade has shown us the value of continued attention for water issues on the global policy agenda. The proposed decade is considered important for several reasons, but particularly to foster the political will necessary to ensure implementation of the SDG 6 and related targets, by supporting enhanced partnership, and to strengthen the process that is necessary to develop a comprehensive approach at national level and create adequate mechanism for implementation in each country. Many underscored the need for the proposed decade as part of a new global architecture that would help harmonize existing global initiatives, including the High-Level Panel on Water, consolidate gains made during the previous Decade on Water for Life, as well as ensure that global processes trickle down to the final beneficiaries. The proposed Water for Sustainable Development Decade received wholehearted support of a number of governments and institutions, as a way of filling substantive and institutional gaps. A number of recommendations were made on the initiative, including a proposal that the new decade should call for and subsequently work alongside an intergovernmental body on water cooperation under the United Nations. It was also noted that the proposed decade should inspire meaningful transformation and the cooperation necessary to implement SDG 6, as well as related SDGs.

## **2. Universal and Equitable Access to Safe and Affordable Drinking Water for All**

Ensuring that no one is left behind in enjoying access to safe and affordable drinking water is a major challenge in the implementation of the 2030 Agenda. Focusing on poor and vulnerable groups, in both urban and rural areas, will be

essential to achieving SDG 6. An integrated strategy, built on the principle of the human right to water and sanitation, adequate investment in water infrastructure, improved water governance, targeted support to the vulnerable groups and participation in decision making, will be essential to accelerating momentum for action and progress.

Water supply is a top priority for most countries. It was included in the MDGs and is one of the targets of SDG 6. This is important not only for social development, but also to sustainable development, peace and security. Over the last decade, significant funding was dedicated to water cooperation. The need to implement the human rights on water and to make water accessible and affordable was also recalled. Focusing on poor and vulnerable groups will be essential to accomplish SDG 6. Too many around the world suffer due to inappropriate management, lack of capacity, poor infrastructure and corruption. In some countries, in rural areas, a large share of the population does not have access to appropriate safe drinking water. Moreover, the maintenance system is not appropriate and water infrastructure is aging. Investment in water infrastructure is needed in order to reach SDG 6. Local governance and public participation play a key role. A legalistic approach is not enough. It is important to build institutional capacity, experience and practice, pursue de-monopolization, increase investment capacity and produce qualified specialists. Community planning and projects must be incentivized through education and clear management. Affordability is a key issue, but also the fact that climate change and water related disasters can deteriorate water quality. Poverty and gender are key elements for accessibility, equity and equality. Monitoring and regulation needs to be performed for water, tax incentives, operations and maintenance, citizen engagement, as well as stronger governance. Groundwater and surface water pose different challenges. Mining and stealing water is an issue in several countries, especially in conflict areas.

One of the most essential uses of water is for drinking and household hygiene. This first use is captured in SDG target 6.1, which seeks to secure safe and affordable drinking water for all. Water for households represents an important share of total water use. Safe drinking water means that it is free of contaminants. The quality of raw water or sewage treatment contributes increasingly to the cost of safe drinking water. Considering that issues do exist not only in law but also with regard to institutional capacity, the investment for capacity building both to community and water practitioners is critical to increase literacy and institutional capacity and empower women and vulnerable people. Good governance and sustainability through investment in water infrastructure with appropriate operations and maintenance for its resilience are required. Urgent and practical approaches should be based on facts (data) and knowledge (experience, practice). Therefore, monitoring and sharing good practices are essential to implement universal and equitable access to safe and affordable water.

### **3. Access to Adequate and Equitable Sanitation and Hygiene for All**

Target 6.2 “by 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations” aims for adequate and equitable sanitation and hygiene for all. A safely managed sanitation chain is essential to protect the health of individuals and communities, as well as the environment.

The limited progress in sanitation has often been attributed to lack of awareness and lack of political will on the part of governments. Efforts of the United Nations to put sanitation at the center of the development agenda include World Toilet Day

(celebrated since 2001), the International Year of Sanitation (2008), the proclamation by the UN General Assembly of sanitation as a Human Right in 2010, the Sustainable Sanitation campaign “Five-Year Drive to 2015” and the End Open Defecation Campaign (2014).

Through target 6.2, the international community, working through partnerships, now has the opportunity to close the sanitation gap as an essential element of eradicating extreme poverty. Ensuring that no one is left behind in enjoying access to adequate and equitable sanitation and hygiene for all will generate momentum for progress in achieving the other SDGs. As is the case with the other SDG 6 targets, focusing on the poor and vulnerable groups, in both urban and rural areas, will be key to success. A multi-pronged coordinated strategy, supported by investment in sanitation infrastructure and by targeted measures for girls and women, will help bring concrete progress on the ground and tangible benefits for all, especially vulnerable groups.

The significant difference between MDG and SDG targets on sanitation is not only 50% access and 100% access. The MDG target tried to achieve access to basic sanitation, while the SDG aims at achieving access to “adequate” and “equitable” sanitation. This session focused on “adequate access”, as well as “inequitable access” in relation to it, as those two words are the key for meeting target 6.2 and, more importantly, the other SDG goals and targets, such as poverty eradication, education and gender equality through sanitation. It is necessary to close the sanitation gap for the benefit of health and a healthy environment, the inequalities between urban and rural areas and between developed and developing countries, as well as the different challenges they face with respect to adequate sanitation.

Panelists from different parts of the world with extensive experience in addressing sanitation issues at various levels shared their experience, the challenges encountered and their views on the way forward to achieve target 6.2. In these examples, keywords for success such as “ownership of users and communities”, “partnerships between public and citizens”, “demand driven approach” and “shared awareness of leaders and stakeholders” were identified. Also, features of adequate sanitation were identified as: used by all members of the community, consistently including hygiene practice, affordability, taking into consideration cultural diversity and specific needs, being safe to use, both in terms of cleanliness and security, being properly maintained and managed, especially for public facilities, separating the waste from human contact, as well as ensuring disposal of waste and discharge with proper treatment.

On the “equitable access” side, the importance of reliable and gender disaggregated data was seen as key to ensure adequate monitoring and evaluation, but also for informed decision-making and sensitizing governments and key partners. Monitoring access to sanitation by specific groups such as disabled, homeless and segregated people may also help in narrowing the gap in adequate access. The audience asked that specific attention be given to gender-based violence and the location, lack of security and separation of toilets in schools and public places. Also the importance of sanitation in conflict and post-conflict situations was raised as an area of concern. To achieve the SDG sanitation target, business as usual is not an option. A handicap of the sanitation sector is that programs are too often supply-driven, technically oriented and not based on adequate inclusion of beneficiaries, especially the ones furthest behind, in the development and implementation of projects and programs. Lack of capacity and a voice of vulnerable stakeholder groups is one of the

principal reasons. Empowering women and strengthening their organizations is very important, for example in the case of women.

Considerable investment in partnerships and a comprehensive Water, Sanitation and Health (WASH) approach with equal attention for the sanitation and hygiene components were seen as the only viable option. Several speakers pointed to the importance of getting business on board as a partner and some examples of successful partnerships with the business community were given. Sustainable sanitation is a challenge. The current system is not perfect. It is pointed out that the way in which current urban sanitation systems are applied may unnecessarily pollute the environment. Furthermore, agreed standards and too strict regulations may result in the poor and vulnerable being excluded, as is the case in which municipalities cannot afford to apply the strict regulations imposed to the entire region. Resilient sanitation systems tailored to local situations should be developed. Successful approaches to close the water supply and sanitation cycle through eco-sanitation in decentralized settings were presented. Integrated management of water supply and sanitation from financial, social, and environmental perspectives will provide a fast-track towards achievement of SDG 6.

#### **4. Increasing Water Use Efficiency**

Sustainable Development Goal (SDG) 6.4 aims at substantially increasing water-use efficiency across all sectors, ensuring sustainable withdrawal and supply of freshwater to address water scarcity and substantially reducing the number of people suffering from water scarcity by 2030. Global water demand is increasing due to population growth, economic development and urbanization trends. In some regions, the impact of these developments will be compounded by climate change, increasing relative water scarcity.

As the potential for developing new sources of water, as recognized by the international community, diminishes, the efficient use of water is necessary to meet future demand. In the business as usual scenario, agricultural water consumption, mainly represented by highly inefficient surface irrigation (FAO 2014), is expected to increase globally by about 20% by 2050 (UN, 2014). Inefficiencies also persist in municipal water supply: estimated losses from urban water networks range from 20 to 50 percent. The session aimed at highlighting technical and policy solutions to increase water-use efficiency in various sectors.

The session brought together a panel of international experts from across the world for an exchange of multi-sectoral and multi-scale experience on challenges and solutions to increase water use efficiency. Given interlinkages between the water users, the discussions were multi-sectoral in nature and explored options for both integrated approaches and sector-specific experiences, which could be utilized in achieving SDG 6.4 at local, national and regional level. The session included the findings of the World Bank's report *High and Dry: Climate Change, Water and the Economy*, which provided an overview over global trends of water scarcity, efficiency in use and risks to the economy, as well as thematic presentations that focused on challenges to ensure urban water supply under a changing climate, as well as solutions to improve efficiency in urban water supply, technical and economic aspects of irrigation efficiency and the impacts of potential irrigation efficiency improvements at the basin level.

First of all, some regions are already facing water scarcity and climate change will make situation worse, not only in regions which are already struggling but also in

others. The challenge is one of uneven geographic distribution of water resources versus population. Not everywhere water is managed efficiently and solutions are possible to address these challenges. Second, while designing solutions, it is important to keep in mind that water is a cross-sectoral matter. Water needs to be managed across the water-food-environment-energy nexus. Third, to achieve efficiencies, water needs to be managed at the appropriate level and across the different levels (local-national-regional). Furthermore, solutions have various components: technical (infrastructure and new technologies), financial (incentives to shift to more water efficient use) and institutional. Not only government institutions, but also policies and laws need to guide the incentive structure and manage implementation of more water efficient use and behaviors. Last but not least, strong political will and sustained highest level commitment is required. Achieving water use efficiency and sustainable use, changing behavior is a long process that needs to be sustained in the long-term. As water scarcity will grow in the longer term and will affect our children and grandchildren, we need to continue to invest in the next generation to provide it with the capacities to cope with this life threatening challenge.

## **5. Integrated Water Resources Management**

Since 1992, the majority of countries (more than 80%) have embarked on reforms to improve the enabling environment for water resources management based on the application of IWRM, as stated in Agenda 21 and affirmed in the Johannesburg Plan of Implementation (2002). These efforts have required far reaching reforms for many countries with adjustments to water policy, water legislation and water resources planning. For some countries this has been complicated by the fact that water resources are a responsibility of lower administrative levels such as state, province or municipality. In addition, there have been complexities and a wide spectrum of success with establishing governance and institutional frameworks, applying management instruments, developing infrastructure, financing water resources management, stakeholder involvement, gender dimensions and capacity development.

Meanwhile, many water systems are shared by two or more countries and these transboundary resources are interlinked by a complex web of environmental, political, economic and security interdependencies. Cooperative management frameworks exist for only about 40% of the world's international watercourses (276 in total), as per the UN International Watercourses Convention (2014). As a result, most of the world's transboundary water resources still lack sufficient legal protection. Without adequate protection, it will be difficult, if not impossible, for riparian countries to cope cooperatively with existing and future threats from human pressure and environmental change.

This session formulated a number of conclusions. First, IWRM remains relevant and must be a key component of planning towards sustainable development and building climate resilience. IWRM is still a valid paradigm for sustainable water management. Even if most countries have embarked on reforms to improve their enabling environment based on the application of integrated approaches, progress has been uneven and is more common in developed countries. It is slower in other countries as a result of capacity gaps, financial constraints and political economies. As the world encounters intensified water related disasters, floods and drought, IWRM can be used as a planning approach for disaster risk reduction.

Second, water resources development and management is a "work in progress". Continuing support is needed. There are benefits from improved practices backed by

evidence. Improved policies, laws and institutional structures lead to better water resource management in practice. Some of the characteristics promoting good management include: lean and strong institutional arrangements, as well as good and real-time water related data and information. Engaging vulnerable and marginalized groups in a participatory manner in the decisions regarding IWRM should be ensured. Efficient and equitable allocation of water across sectors, users and uses remains to be fully explored and implemented further, particularly in the context of shared transboundary waters.

Third, transboundary water management is taking place, but there are challenges and they will require time. According to some speakers, countries should be encouraged to ratify international watercourse conventions and implement their provisions. Lessons should be drawn from experiences of shared basin organizations that are developing or have completed the development of IWRM plans. Building confidence and organizational skills is a long-term process for transboundary organizations. Some results may take decades to achieve. Water diplomacy and trust building are urgently needed. Therefore, target 6.5 cannot be achieved without regional cooperation.

Fourth, a regular global reporting mechanism on national and basin level water resources management should be established to monitor SDG indicator 6.5.1 “degree of IWRM implementation (0-100) (IAEG, 2016)”, supporting monitoring of SDG target 6.5 “Implement IWRM at all levels, including through transboundary cooperation as appropriate”. This reporting mechanism must be robust, objective and transparent. Capacity development is needed for national and regional statistical offices to collect and maintain data that is necessary for integrated monitoring and reporting.

Some additional recommendations on the way forward, include that financing water resources management is fundamental and includes pricing effects for water resources and ecosystem services. Increasing financing for both grey and green water infrastructure is essential for IWRM. International support must be provided based on countries’ priorities and needs. Revitalizing and renewing commitments in multi-stakeholder partnerships and learning from experiences and facilitating exchange of knowledge and experience gained are also important to accelerate action.

In recognition of these outcomes, UNDP pledges that it will build on its five decades of experience supporting countries to achieve their development goals. With boots on the ground in nearly 170 countries, UNDP can help convene the many different partners, which need to work together to get the job done. UNDP is also in a unique position to support countries to monitor, learn and apply lessons learned on IWRM and SDG 6 for sustainable development. UNDP is fully committed to playing its part as an integrator and accelerator in advancing water in the post-2015 development agenda for the benefit of people and the planet.

## **6. Protect and Restore Ecosystems**

The session provided an opportunity to assess the status of water-related ecosystems and their role in the global water cycle including implications related to climate change impacts. The session aimed at highlighting the role of ecosystems on freshwater availability and the benefits ecosystems offer to mitigate extremes of drought and flood, including a focus on how to manage and restore ecosystems for water services and biodiversity. The presentations provided information on best practices, lessons learned and experiences, as well as the common challenges and

barriers being faced in particular by the LDCs, SIDS and LLDCs for the protection and restoration of water-related ecosystems. During the session, after an introduction on why we need to protect and restore ecosystems, speakers discussed four types of issues in different cases and regions of the world: problems for ecosystems, policy proposals to improve the situation, challenges for implementation, how to deal with the implementation challenges for protecting and restoring water-related ecosystems, as well as specific cases.

Ecosystems are important for the provision of water services to society, important for improving water quantity (as they can capture and store water) and water quality (as they can decompose and/or absorb water pollutants). They protect us against climate change. There is also strong link between public health and the environment. Poor access to sufficient quantities of water can be a key factor in water-related diseases and is closely related to ecosystem conditions. SDG target 6.6 seeks to halt the degradation and destruction of these ecosystems and promote the recovery of those already degraded and destroyed. The target includes aquatic ecosystems such as rivers, lakes and wetlands, but also mountains and forests, important for storing freshwater (e.g. in glaciers) and for maintaining high water quality. Not leaving anyone behind then also means protecting ecosystems in LDCs, SIDS and LLDCs. It is important to include those groups of countries, which are greatly affected by water-related challenges and may experience exacerbated impacts from pressures on freshwater ecosystems and biodiversity loss.

There are different alternative policies to protect and restore ecosystems. Overall, it is necessary to implement IWRM. Proposals presented in the session included using green, natural infrastructure to substitute man made, physical infrastructure: mangroves instead of walls; wetlands instead of wastewater plants. There is a need to control and protect the sources of drinking water, protecting water from pollution from household, point and diffuse sources. It is still possible to consider using groundwater as a reliable resource where recharge is greater than abstraction. In water-scarce countries, there are strong links between improved water management and conservation. This is also cost-effective. Lowering consumption, maximizing water supplies and promoting information sharing and education is cheaper than building new infrastructure. Policies in water scarce countries include improved efficiency in transportation in major projects, drainage projects, water reuse, water resource planning to protect public health and the environment, protecting quality, adaptation to climate change, as well as shore protection projects against erosion.

There are different challenges for implementation. These include the following: IWRM is widely accepted, but it does not get implemented fully; there is no good monitoring or information on the health of ecosystems and how it evolves; people do not know enough about the importance of ecosystems; for water and health, there are different actors in the ministries in charge of health and water and they do not always work together, but in silos; ministries and agencies in charge of the environment are not influential enough; there is competition among stakeholders and there is not a level playing field, so ecosystems often end up with leftovers; financing for nature conservation is not coming through. Last but not least, there are several political challenges, including the difficulties and slow processes for reaching agreements among countries sharing the same body of water.

Different proposals and cases were presented during the session on how to deal with the implementation challenges of the policies to improve and restore ecosystems. Several actions were mentioned, including improving our knowledge about the variety

of ecosystems, showing the benefits of natural infrastructure such as glaciers, increasing stakeholder participation, giving voice and empowerment to stakeholders including women, targeted finance, improving incentives, monitoring and exchange of experience, as well as mutual assistance.

## **7. Improve Water Quality by Reducing Pollution**

This session addressed issues related to SDG target 6.3 “by 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally”. Declining water quality has become a global issue of concern as human populations grow, industrial and agricultural practices expand and climate change threatens to cause major alterations to the hydrological cycle. The most significant sources of water pollution are the inadequate treatment of human waste and inadequately managed and treated industrial and agricultural waste. The session provided an opportunity to assess the status of the pollution problem in water streams and bodies at national and regional levels and the current and future programs related to improving water quality. It explored integrated approaches to freshwater management, including reducing agricultural pollution, restoring dead zones and water conservation measures. The presentations provided information on best practices, lessons learned and experiences as well as the common challenges and barriers being faced in particular by LDCs, SIDS and LLDCs.

The discussions provided a platform to exchange knowledge and assess means for the effective implementation of programs designed to improve water quality and to reduce pollution, including financing, technology transfer, capacity development and international cooperation.

Water education and capacity building are key elements in providing the knowledge and skills required to face some of the most pressing current water challenges. As such, they are essential components of any meaningful strategy towards sustainable development and achieving SDG target 6.3. A holistic approach encompassing all levels of water education is needed, addressing its tertiary and professional dimensions and providing training for policy makers and the mass media, as well as school, vocational and technical education.

Wastewater contaminates freshwater and coastal ecosystems, threatening food security, access to safe drinking and bathing water and providing a major health and environmental management challenge. Contaminated water from inadequate wastewater management provides one of the greatest health challenges restricting development and increasing poverty through costs to health care and lost labor productivity. Well-managed wastewater will be a positive addition to the environment, which in turn will lead to improved food security, health and therefore aid the economy. Therefore, treatment of wastewater and reuse is a key factor in achieving SDG target 6.3.

To provide a more comprehensive understanding of the health risks of wastewater use in agriculture, future research should consider multiple exposure routes, long-term health implications and increase the range of contaminants studied, particularly in regions heavily dependent on wastewater irrigation.

Each country should prepare and enforce water quality standards that describe the desired condition of a body of water or the level of protection. These standards should form a legal basis for controlling pollution entering the waters from a variety of

sources (e.g., industrial facilities, wastewater treatment plants and storm sewers). Best practices, lessons learned and experiences of controlling declining water quality and reducing pollution should be exchanged and disseminated among counties.

## **8. New and Innovative Water Cooperation Mechanisms for Sustainable Development**

With 40% of the world's population living in transboundary rivers and lake basins and more than 90% living in countries that share basins, transboundary water cooperation is critical for sustainable development. International rules have been established for better management between countries sharing transboundary water systems and more than 400 agreements worldwide have been adopted to govern transboundary rivers and lakes. For transboundary groundwater, the international rules are at their infancy, with a small number of transboundary aquifers having legal and institutional arrangements. Despite the availability of international rules including the UN Watercourses Convention, UNECE Water Convention and UN Draft Articles on the Law of Transboundary Aquifers, challenges still remain in establishing effective water cooperation mechanisms. Against this background, it is important to promote new and innovative water cooperation mechanisms for sustainable development. This session contributed to sharing best practices and to discussing new and innovative water cooperation mechanisms for sustainable development.

Participants were encouraged to draw best practices from river basin organizations with demonstrable experience in transboundary water cooperation, such as the OMVS (Organisation pour la Mise en Valeur du fleuve Sénégal) that has forty years of experience in this respect. OMVS is built for joint management of the River Senegal, the third longest waterway in Africa. OMVS is the basin organization that has adopted and systematically implemented the principle of joint ownership and benefit sharing of all developments implemented by the Member States.

The main objective of the session being the sharing of best practices on water cooperation and identification of challenges and gaps that prevent effective water cooperation, the session highlighted Tajikistan's contribution towards both national level and regional level water cooperation. Nationally, the government set up an inter-ministerial steering committee as a platform for promoting cross-sectoral dialogue and cooperation amongst relevant ministries. At the river basin level, the government is in the process of setting up river basin organizations that would promote basin level dialogue and contribute to water cooperation amongst the riparian countries. This effort would strengthen, amongst other things, the existing agreement signed in 1992 by the riparian heads of state on the use and management of the Aral Sea water resources. Water diplomacy and benefit sharing is important to foster mutual trust and cooperation.

In Morocco, water resource development is guided by a new medium to long term integrated water policy that is based on the results of studies by various actors that led to the development of the water resource master plans. No river basin in the country is transboundary. As such, a national contractual framework exists between all stakeholders and concerned partners to ensure sustainable water management of aquifers and preservation of their quantity and quality as well as the prevention of flooding. Internationally, Morocco cooperates with other riparian states of the Mediterranean basin in terms of hydro-meteorological information sharing.

In the Asia and the Pacific region, many water bodies are transboundary. Cohesive management is therefore needed. Although water infrastructure is crucial for mitigating water-related disasters, it only accounts for approximately 1% of total

global investments, thus reducing the motivation for cooperation. Notwithstanding the present circumstances, UNESCAP assessed cross-sectoral inter-linkages between SDG 6 and the other SDGs at the target level with the view of identifying opportunities for integrated high-impact interventions (i.e. leverage points) that could inform the organization's development of a regional roadmap for the implementation of the 2030 Agenda for Sustainable Development. The intervention is expected to enhance strategic planning and management in pilot countries regarding the implementation of the 2030 Agenda, as well as complement opportunities for regional and global synergies, including aspects of transboundary water cooperation.

The Environment and Security Initiative (ENVSEC) is a partnership between OSCE, REC (Regional Environmental Center for Central and Eastern Europe), UNDP, UNECE and UNEP with NATO as an associated partner. ENVSEC's approach is to ensure stakeholder ownership, political endorsement through national and regional consultations and implementation of targeted projects that encourage transboundary cooperation.

Strengthening cooperation for the sustainable management and environmentally sound protection of trans-boundary aquifers is also important. 276 watersheds and 592 aquifers around the world transcend boundaries of two or more countries. Whilst there are 3,600 treaties relating to the use of the world's 276 transboundary waters that had been catalogued since 800 CE, only six are over groundwater. UNESCO-IHP has embarked on support towards the realization of the six transboundary groundwater agreements, starting with the compilation of a world inventory of transboundary aquifers and developing wise practices and guidance tools concerning shared groundwater resources management through the long term Internationally Shared Aquifer Resources Management (ISARM) Programme, launched at the 14th Session of the Intergovernmental Council of the UNESCO-IHP (2000).

From the thematic session deliberations emerged the following eight key messages:

1. Water should be used as a catalyst for cooperation and not as a source of conflict;
2. Water diplomacy is pivotal for fostering mutual respect and beneficial water cooperation;
3. Demonstrable benefit and cost sharing provide incentives for transboundary water cooperation;
4. Methodological analysis for illustrating intersectoral linkages can promote transboundary water cooperation;
5. Institutional framework that links the international technical level consultations with political decision making mechanisms for riparian member states is vital;
6. Water resources knowledge generation, sharing and stakeholder participation is of cardinal importance;
7. Status of groundwater use needs strong legal backing in order to enhance holistic transboundary water cooperation;
8. Sharing of best practices that promote political will for effective water cooperation amongst various global regions is essential to foster a common understanding.