

# RIO 2012 Issues Briefs

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## Water

### 1. Introduction

This brief is aimed at providing a basic reference relating to international time-bound commitments in the area of water, with a view to facilitating discussion around water resources, management and quality in the course of the preparation for UNCSA. It examines existing commitments; briefly reports on their implementation; examines proposals that have been made to date in relation to future goals with time-bound targets for the international community to consider. Finally, a number of examples are cited of good practices in improving access and sustainable management of scarce water resources.

### 2. Existing commitments

Access to safe drinking water; protection of water resources, water quality and aquatic ecosystems; integrated water resources management (IWRM); water resources assessment; and water and sustainable urban development are the major water-related goals with time-bound commitments, as enumerated in Table 1. Documents consulted include:

- Agenda 21 (1992)
- MDGs (2000)
- JPOI (2002)
- Dushanbe Water Appeal (2003)
- CSD outcome documents

**Table 1. Summary of commitments with time-bound targets from consulted documents**

Document	Target	Delivery Date
<b>Agenda 21</b>		
Protection of water resources, water quality and aquatic ecosystems	All States, according to their capacity and available resources, through bilateral or multilateral cooperation, including the United Nations and other relevant organizations as appropriate, could set the following targets: [...] (e) To reduce the prevalence of water-associated diseases, starting with the eradication of dracunculiasis (guinea worm disease) and onchocerciasis (river blindness) by the year 2000; (18.39; Section 2, Chapter 18)	2000
Integrated water resources management (IWRM)	(a) By the year 2000: i. To have designed and initiated, costed and targeted national action programmes, and to have put in place appropriate institutional structures and legal instruments; ii. To have established efficient water-use programmes to attain sustainable resource utilization patterns; (b) By the year 2025: i. To have achieved subsectoral targets of all freshwater programme areas. (18.11; Section 2, Chapter 18)	2000          2025
Water resources assessment	(a) By the year 2000, to have studied in detail the feasibility of installing water resources assessment services; (18.26; Section 2, Chapter 18)	2000

Water and sustainable urban development	(a) By the year 2000, to have ensured that all urban residents have access to at least 40 litres per capita per day of safe water and that 75 per cent of the urban population are provided with on-site or community facilities for sanitation; (b) By the year 2000, to have established and applied quantitative and qualitative discharge standards for municipal and industrial effluents; (18.58; Section 2, Chapter 18)	2000
<b>Johannesburg Plan of Implementation</b>		
Access to safe drinking water	The provision of clean drinking water and adequate sanitation is necessary to protect human health and the environment. In this respect, we agree to halve, by the year 2015, the proportion of people who are unable to reach or to afford safe drinking water (as outlined in the Millennium Declaration) and the proportion of people who do not have access to basic sanitation (Chapter II, 8)	2015
IWRM	Develop integrated water resources management and water efficiency plans by 2005, with support to developing countries (Chapter IV, 26)	2005
<b>Millennium Declaration</b>		
Access to safe drinking water	Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation (MDGs, 7C)	2015

### 3. Delivery of commitments

From a policy perspective, there is a wealth of information and guidelines from which Member States can draw when designing and outlining policy, particularly from UN-Water<sup>1</sup>, but fewer detailed, time-bound commitments. Since Agenda 21 with its time-bound targets, detailed information that could go towards composing structured and specific implementation plans are contained in documents such as the UN World Water Development Reports.

The MDG 7 target regarding access to safe drinking water is tracked in the yearly Reports by the Joint Monitoring Programme of UNICEF and WHO. As of the 2011 MDG report<sup>2</sup>, sustainable water resource limits have been exceeded in Western Asia and Northern Africa, whereas Southern Asia and the Caucasus and Central Asia are approaching water scarcity. In the remaining regions, water resources are still abundant. The same report states that “The world is likely to surpass the drinking water target,

though more than 1 in 10 people may still be without access in 2015.”<sup>3</sup>

At the current rate of progress, however, it will take over three extra decades beyond 2015 to meet the sanitation target and, globally, rural populations remain at a significant disadvantage. At the same time, the rapid rate of urbanization and the sluggish pace of infrastructure improvement in many cities pose a challenge for sustaining improvements in access to safe drinking water in urban areas. Particularly affected are those in developing countries, countries in conflict and countries that have recently emerged from conflict. “In urban areas, the poorest households are 12 times less likely than the richest households to enjoy the convenience and associated health benefits of having a piped drinking water supply on premises.”<sup>4</sup>

UN-Water is currently in the process of analysing the responses to a comprehensive questionnaire sent to Member States regarding their integrated policy

approaches in the development, management and use of water resources. Preliminary results show that there is still a way to go in improving water resources management. Most Governments have made progress with water sector reform; but the implementation process which sees principles turned into policy, laws, strategies and plans is slow. Some countries have difficulty moving beyond the first political steps.

The main messages of UN-Water for Rio highlight the importance of sustainable water management and the efficient provision of adequate drinking water and sanitation services, investment in water infrastructure and water-based adaptation to climate change, for successfully achieving a green economy. They emphasize the importance of targeting the poorest to help lift them out of poverty and realize their human right to basic drinking water and sanitation services. The Stockholm statement (agreed in the Stockholm World Water Week 2011) calls for effective water management to help adapt to the impacts of climate change and promote economic growth.

Water policy and institutional reform is urged, in order to promote water use efficiency, protect freshwater ecosystems and achieve water, energy and food security. Increasing the water resilience and sustainability of cities is identified as a priority area, as is agriculture where there is a need to increase efficiencies along the whole food supply.

The General Assembly, recognizing “the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights”, gives additional impetus to the forward motion that the commitments since Agenda 21 have provided.<sup>5</sup> In the outcome of Rio+20, any action-oriented decisions on water will need to add value to what has been agreed in previous conferences on access to water and its sustainable use.

#### **4. Water-related Sustainable Development Goals**

The Colombia/Guatemala proposal<sup>6</sup> for launching a process at Rio+20 to define sustainable development goals (SDGs) mentions water resources as one issue critical to moving forward the sustainable development agenda. A clear starting point for a water-related SDG for freshwater would be the MDG regarding access to safe drinking water: to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation. Broadening water goals in recognition of the overall importance of water for health and social well-

being, economic development and adaptation to climate change, a number of goals emerge based on the submissions to the Compilation text and discussions in the UNCSD preparatory meetings: universal access to safe drinking water by 2030; improved efficiency of water uses, overall and/or by sector; improved water quality; increased rate of safe water reuse; improvement and protection of water resources and aquatic ecosystems; nurturing and reinforcement of cooperation to improve water management.

### **5. Means of Implementation**

Moving to action requires efforts to increase and improve effectiveness and efficiency of financing of basic services and water resources management; to improve capacity building and engage stakeholders; and to establish mechanisms for development and sharing of water technologies. The following are examples, from the UN-Water toolbox, of strategies for effective water resources management and development.

#### **5.1 Economic instruments for water management in the transition towards a green economy**

##### **Water trading in the Murray-Darling Basin**

In Australia an expanding market for the trading of water use rights — 90% of which takes place in the Murray-Darling Basin — has enabled water to be allocated efficiently among users under conditions of water scarcity. Environmental sustainability is ensured through the purchasing of water rights for the environment.

#### **5.2 Financing water development in a green economy**

##### **Pro-poor financing and tariffs in Medellín, Colombia**

Empresas Públicas de Medellín, a service provider owned by the Municipality of Medellín, has designed a number of programmes aimed to increase water services coverage, improve efficiencies, and target low-income households and peri-urban areas. These include: a programme offering long-term credit at low rates to low income populations for the construction of water and sanitation networks and connections to public utilities; a programme providing people with low payment capacity and bill debts access to low cost financing; a programme offering credit at competitive rates for home improvements and efficient appliances; a programme for contracting small community organizations for work related to water and sanitation

services provision; and the provision of public water services to peri-urban areas.

### 5.3 Investing in natural capital to promote a green economy

#### **Payment for Environmental Services (PES) pilot project in Lake Naivasha basin, Kenya**

In a pilot PES project in Lake Naivasha basin, the local water resources users association, formed mainly of flower and vegetable growers, compensates upstream small-scale landowners for managing their land to provide good quality water to downstream users. The scheme has reduced environmental threats as well as provided income and livelihood improvements to participating communities.

### 5.4 Technology to facilitate the transition to a green economy

#### **Improvement in water supply through a GIS-based monitoring and control system for water loss reduction**

In Ouagadougou, Burkina Faso, a GIS-based monitoring and control system has enabled significant reductions in water losses within the distribution of a municipal utility. The technical components include leak detection devices, pressure and flow control sensors with real-time and online data transmission, automated pressure valves, and an intelligent GIS-based computerized system to steer the whole process. Local jobs were created through the investment in and continuous operations of the water loss reduction programme. The programme also improved water efficiency, water supply and customer awareness of the importance of protecting water resources and caring for public water supply property.

### 5.5 Green jobs: greening the labour market to foster sustainability

#### **Maynilad Water District, the Philippines**

The management, unions and workers in Maynilad Water District (the Philippines) have successfully worked together to reduce the high rate of non-revenue water. The reduction of water losses increases the proportion of water sold relative to the water extracted from nature. This has reduced treatment costs as less treated (purified) water is needed to meet demand if water losses are minimized. The utility has ensured ongoing employment for workers, offered workers training to develop new skills, and implemented leak detection strategies.

## 5.6 Water planning

### **Water planning in the Ebro River basin, Spain**

In the Ebro River basin, water planning and water management have played a central role in economic development, transforming the semi-arid region into a prosperous economy. Water planning has enabled the development of the agro-food and energy complex that now represents a competitive advantage and a defining characteristic of the Ebro River basin in Spain.

Today, the primary objective for planning is reconciling economic growth with the protection and improvement of the water resources which are critical to sustaining economic welfare in the long term. Setting the achievement of a good or fair ecological status of the water bodies as the main objective of River Basin Management Plans has been an important contributor to meeting this objective in the Ebro basin. An extensive public participation network ensures that stakeholders engage through the development of river basin management plans and take part in the decision-making process.

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The purpose of the Rio 2012 Issues Briefs is to provide a channel for policymakers and other interested stakeholders to discuss and review issues relevant to the objective and themes of the conference, including a green economy in the context of sustainable development and poverty eradication, as well as the institutional framework for sustainable development.

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<sup>1</sup> <http://www.unwater.org/>

<sup>2</sup> DESA *et al*, 2011. Millennium Development Goals Report.

<sup>3</sup> *Ibid*, p. 53.

<sup>4</sup> *Ibid*, p. 54.

<sup>5</sup> A/RES/64/292.

<sup>6</sup> RIO + 20: Sustainable Development Goals (SDGs): A Proposal from the Governments of Colombia and Guatemala (Available at [http://www.minambiente.gov.co/documentos/DocumentosAmbiente/asuntos\\_interno/200911\\_propuesta\\_colombia\\_guatemala\\_rio\\_+\\_20\\_ver\\_ingles.pdf](http://www.minambiente.gov.co/documentos/DocumentosAmbiente/asuntos_interno/200911_propuesta_colombia_guatemala_rio_+_20_ver_ingles.pdf))