SDG6 – CLEAN WATER AND SANITATION

CONCISE GUIDES TO THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

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SDG6 – CLEAN WATER AND SANITATION

Balancing the Water Cycle for Sustainable Life on Earth

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1

INTRODUCTION

SDG 6 is concerned with water and water management. It has the following target:

> *Ensuring universal access to safe and affordable drinking water for all by 2030 requires we invest in adequate infrastructure, provide sanitation facilities, and encourage hygiene at every level. Protecting and restoring water-related ecosystems such as forests, mountains, wetlands and rivers is essential if we are to mitigate water scarcity. More international cooperation is also needed to encourage water efficiency and support treatment technologies in developing countries.*

This is to be achieved through the following goals:

6.1. By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

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.

6.3. By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

6.4. By 2030, substantially increase water use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

6.5. By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.

6.6. By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.

6.a. By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.

6.b. Support and strengthen the participation of local communities in improving water and sanitation management.

There is no doubt that the target and goals of the Sustainable Development Goals (SDGs) are ambitious, but they do, to some extent, build on the Millennium Development Goals (MDGs)

and the relative success seen with them. The MDGs focussed strongly on sanitation and clean drinking water, which was in response to the serious health and economic development challenges resulting from a lack of clean water. The MDGs included the target to 'halve, by 2015, … the proportion of the population without sustainable access to safe drinking water and basic sanitation' (United Nations General Assembly, 2000).[1]

These goals were ambitious but there has been significant success in achieving them (United Nations, 2011). The MDG website (United Nations, 2015c) notes that:

- The world has met the target of halving the proportion of people without access to improved sources of water, five years ahead of schedule.
- Between 1990 and 2015, 2.6 billion people gained access to improved drinking water sources.
- Worldwide 2.1 billion people have gained access to improved sanitation. Despite progress, 2.4 billion are still using unimproved sanitation facilities, including 946 million people who are still practising open defecation.

As targets on these issues have been increasingly met, the SDGs recognised the need for expanding the water goals. Achieving universal access to clean safe water was the obvious next step and builds directly on the work of achieving the MDGs. A new aspect and crucial difference with the SDGs is the inclusion of pollution control, integrated water resources management (IWRM) and a greater focus on ecosystems. This inclusion is welcome, but substantially adds to the complexity of the SDG water challenge and creates potential new conflicts in trying to achieve the goals, as this chapter will discuss.

At the same time, it is crucial to consider the relevance of water and SDG6 to other SDGs. The nature of water is such that it will have relevance to every SDG (see Table 1.1) to a greater or lesser extent. There are strong links to SDGs 1 and 8 (water is key to poverty reduction and future development), 2 (water is vital to food supply), 3 (water is key to health), 11 (sustainable and liveable cities need water supplies), and 14 and 15 (terrestrial and aquatic life depends on water and the water cycle). There are also (perhaps less obvious links) to: SDGs 5 gender equality (water can often be a gendered issue in communities, for example, women having to walk long distances to provide water), 7 affordable and clean energy (water will be crucial in energy supplies, especially hydropower and coal/gas), 9 (infrastructure will require water, and achieving clean water and sanitation will need innovation and infrastructure), 10 (equity of water access and availability is a key goal of IWRM), and 16 (conflicts over water are common and growing). Climate action (13) is also likely to influence water use, and responsible production and consumption (12) will have to include water use considerations. Finally, there is a link to education (4), as access to water can help boost education attendance and involvement, but perhaps more crucially education is vital to water management and inclusion of understanding water within quality education will help support SDG6. Hence, achieving SDG6 can support many of the other SDGs, but there are also a number of potential conflicts and trade-offs that will have to be considered and negotiated.

This book examines some of the key aspects of SDG6 and their implications on an international scale. It then presents three case studies that look at different elements of SDG6, namely water sanitation and health, ecosystem protection and restoration, and integrated water resource management. These case studies highlight the challenges achieving SDG6 faces in particular contexts, providing examples of the potential synergies and conflicts that achieving the goals provides.

Table 1.1. The Links Between SDG6 and the Other SDGs.

SDG		Links to Water and Sanitation	
		Ways SDG6 likely to affect the success of other SDGs	**Ways other SDGs will affect SDG6**
1	No Poverty	Water necessary for development, for example, access to water for improved subsistence farming; sanitation necessary to prevent economic losses, for example, loss of productive hours due to sanitation-related diseases	Need to pay 'full-cost' for water and sanitation services
2	Zero Hunger	Water necessary for food production; sanitation necessary for nutrition security	Increased food production may increase demand for water; lack of sanitation causes stunting and malnutrition
3	Good Health and Well-being	Improved sanitation necessary for health; clean secure water supply necessary for improved well-being	Likely to increase demand for water; may require special types of sanitation infrastructure or services
4	Quality Education	Access to water will boost education (time and general attentiveness); access to sanitation affects school attendance especially for females	Education key to efficient water use (demand management) and sanitation use (management of services)
5	Gender Equality	Water and sanitation are highly gendered issues; women's access must be considered	Likely to improve the participation of women in (and quality of) water and sanitation governance

Table 1.1. (*Continued*)

SDG		Links to Water and Sanitation	
		Ways SDG6 likely to affect the success of other SDGs	**Ways other SDGs will affect SDG6**
6	Clean Water and Sanitation	—	—
7	Affordable and Clean Energy	Water for energy, for example, hydropower; waste from sanitation systems can be converted to energy	Water management (e.g. treatment requires energy); conventional sanitation systems require considerable energy (e.g. for aerobic wastewater treatment)
8	Decent Work and Economic Growth	Safe, secure water supply and sanitation are necessary for economic growth	Economic growth can support better water and sanitation infrastructure
9	Industry Innovation and Infrastructure	Water and sanitation support a conducive environment for industry innovation	Water supply and sanitation need innovation and infrastructure to reduce environmental impact and ensure safety
10	Reduced Inequalities	Disparities in access to water and sanitation are linked to socio-economic inequalities	Reduced inequalities must include equitable access to water and sanitation services
11	Sustainable Cities and Communities	Sustainable cities and communities require water supply and sanitation services (including waste treatment)	Cities increase demand on surrounding catchments and land resources potentially conflicting with other productive uses such as food production

Table 1.1. (*Continued*)

SDG		Links to Water and Sanitation	
		Ways SDG6 likely to affect the success of other SDGs	**Ways other SDGs will affect SDG6**
12	Responsible Consumption and Production	Water and sanitation infrastructure could have significant environmental impacts	Will need to include responsible use of water and management of sanitation
13	Climate Action	Climate change and related weather extremes are affecting water and sanitation management practices and infrastructure	Climate adaptation can drive better water and sanitation management practices (e.g. adaptation to flooding)
14	Life Below Water	Water necessary for all life; untreated waste could pollute the marine environment	The marine environment is a crucial part of water cycle and wastewater treatment
15	Life on Land	Water necessary for all life forms; sanitation is important for preventing public health risks	Land-based ecosystems are important for the water cycle and wastewater treatment
16	Peace Justice and Strong Institutions	Conflicts over scarce water and sanitation infrastructure common and increasing	Transboundary cooperation can improve resilience through efficient allocation of shared resources for water and sanitation
17	Partnerships for the Goals	Transboundary water management; sharing best practice	Ensuring water and sanitation management/ technology is context-appropriate

The book seeks to present the goals, the challenges they face and the implications for the water sector and beyond if we are to meet them.

NOTE

1. In addition, in 2003, sustainable access to water was identified as a human right by the United Nations (UN Committee on Economic Social and Cultural Rights, 2003).