

Biodiversity: Natural solutions for water security



Convention on Biological Diversity

Water and sustainable development

FAST FACTS

GLOBAL THREATS

The World Economic Forum ranks water supply crises as the highest global risk for 2013, after major financial failure.

SOCIOECONOMIC CONTEXT

884 million people (12.5% of global population) live without safe drinking water and 2.5 billion people (40%) lack adequate sanitation. By current trends, 1.8 billion people will, by 2025, be living with absolute water scarcity and two-thirds of the world population could be under water stress conditions.

WATER AND DISASTERS

Over 7,000 major disasters since 1970 have caused US\$2 trillion in damages and killed about 2.5 million people. Water-related hazards account for 90% of all natural hazards. In 2010 alone, natural disasters killed more than 296,800 people, affected nearly 208 million others and cost some US\$110 billion.

CLIMATE CHANGE

Climate change impacts are delivered primarily via changes in water resources. Adaptation is mainly about better water management.

Water is pivotal to sustainable development. It underpins most economic activity and also food, energy, industry and human health. Access to drinking water and sanitation are already enshrined in the MDGs. But both the supply and quality of water are **becoming increasingly insecure** for all uses.

Ecosystems function as a **“natural water infrastructure”**. Forests protect water supplies, wetlands regulate floods, healthy soils increase water and nutrient availability for crops and help reduce off-farm impacts, and natural and man-made wetlands and buffer strips can be effective in managing nutrient run-off and pollution.

Degradation of natural infrastructure is often the root cause of disasters and/or contributes to the scale of impacts. Conserving or restoring it often provides **cheaper** and more sustainable solutions. It also delivers substantial co-benefits such as tourism, recreation and biodiversity conservation.

Approximately one trillion dollars per year is presently spent on built water infrastructure. Natural infrastructure can often replace or increase the **sustainability and efficiency** of built infrastructure.

Water is being given greater attention in the discussions on post-2015. Development Agenda However, these discussions often focus on outcomes, with limited consideration given to ways of achieving them. **Ecosystem services offer solutions** for sustainable water resources management and achieving water security for all.

The Rio+20 outcome document (“The Future We Want”) highlighted the importance of water to the sustainable development agenda. It also in paragraph 122, made an important leap in understanding: “We recognize the key role that ecosystems play in maintaining water quantity and quality and support actions within respective national boundaries to protect and sustainably manage these ecosystems.” This represents the required paradigm shift from considering the impacts of water on ecosystems to viewing **ecosystems as an asset**, or tool, to help us achieve sustainable water-related outcomes for all people.

Because of the tangible nature of water issues, and urgency for solutions, the subject presents one of the **strongest links** between biodiversity and sustainable development.

more information:

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United Nations Decade on Biodiversity



photo: Fairuz Othman/flickr

STRATEGIC PLAN FOR BIODIVERSITY 2011-2020

TARGET 14

By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

The Strategic Plan notes that the paramount importance of water should be highlighted in the technical rationale of Target 14.

Water is also cross-cutting and therefore underpins all of the other targets.

Achieving sustainable water security

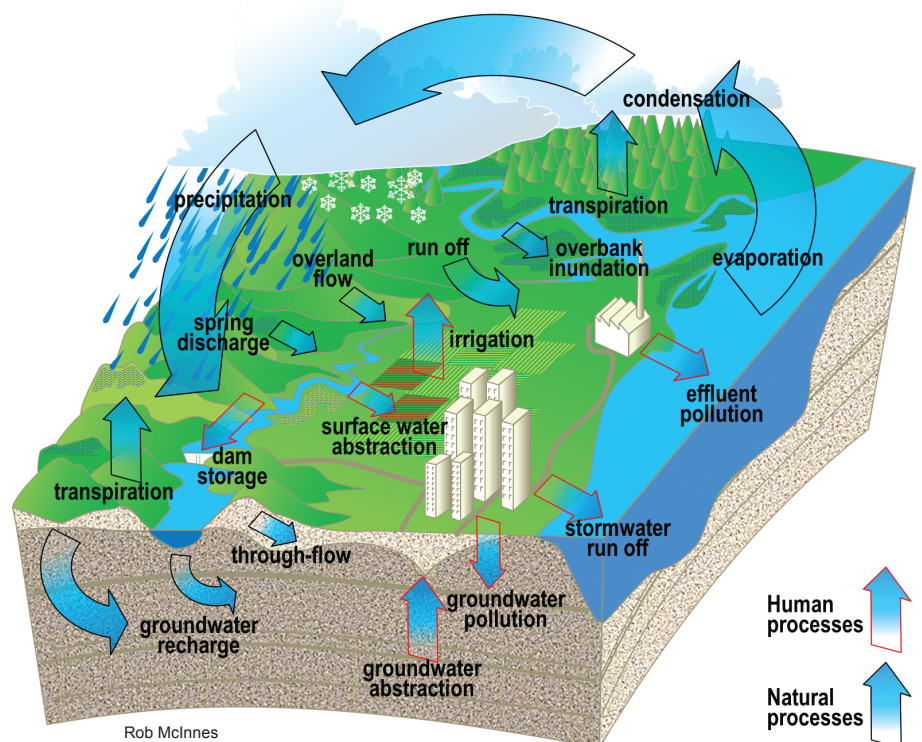
At the CBD's COP 10 Parties noted that water provisioning, regulation and purification are critically important services provided by ecosystems, underpinned by biodiversity, and, essential to sustainable development and the continued functioning of terrestrial, inland water and coastal ecosystems. They also help reduce vulnerability to water-related natural disasters such as flooding and drought, both of which are expected to increase in frequency with current global changes. Attention to water was incorporated into the Strategic Plan for Biodiversity and the Aichi Biodiversity Targets in order to reinforce its contribution to sustainable development.

An expert group on the ability of biodiversity to continue to sustain the water cycle was convened in 2011. The group reported to CBD COP 11, where Parties recognized the importance of the water cycle, including its groundwater component, and the influence that climate change exerts upon it, to most areas of work of the Convention and to achieving most of the Aichi Biodiversity Targets. It

urged due consideration be given to the **water cycle, as a cross-cutting theme**, when implementing the Strategic Plan for Biodiversity 2011-2020.

The Secretariat is currently developing a cooperative partnership to promote awareness of, and capacity

building for, ecosystem based solutions for water resources management as a means to enhance the implementation of the Strategic Plan for Biodiversity 2011 – 2020 by the broadest range of stakeholders, as a contribution to sustainable development and to the 2013 United Nations **International Year of Water Cooperation**.



Rob McInnes