



United Nations Environment Programme



Fresh Water for the future

A synopsis of UNEP activities in water



Published: June 2012

© United Nations Environment Programme

Coordinating Team: Thomas Chiramba, Elizabeth Khaka, Silas Mogoi, Nicolas Chudeau

Interdivisional Water Group: Mohamed Abdel-Monem, Fouad Abousamra, Joana Akrofi, Joseph Alcamo, Maite Aldaya, Jacqueline Alder, Charles Arden-Clarke, Neville Ash, Sylvia Bankobeza, Ivan Blazevic, Mario Boccucci, Jessica Boucher, Robin Bovey, Brendan Bromwich, Surya Chandak, David Coates, Anjan Datta, Salif Diop, Habib Elhabr, Ersin Esen, Norberto Fernandez, Ryuichi Fukuhara, Sheng Fulai, Tessa Goverse, Mariarosa Giannotti, Gabriel Grimsditch, Maxwell Gomera, Niklas Hagelberg, Dennis Hamro-Drotz, Ampai Harakunarak, Ivonne Higuero, Margot Hill, Arab Hoballah, Alexander Juras, Richard, Kaguamba, Levis Kavagi, Sergei Khromov, Remy Kina, Arnold Kreilhuber, Alexandra Krekaho, Pushpam Kumar, Birguy Lamizana, Razi Latif, Shaoyi Li, Ingunn Lindeman, Cornis Lugt, Angela Lusigi, Janet Macharia, Chris Magero, Julie Marks, Isabel Martinez, Anna Menez, Elizabeth Migongo-Bake, Patrick M'mayi, Vladimir Moshkalo, Ivo Mulder, Mara Murillo, Musonda Mumba, Takehiro Nakamura, Henry Ndende, Fatou Ndoye, Nick Nuttall, Lara Ognibene, John-Peter Oosterhoff, David Osborn, Martina Otto, Mahesh Pradhan, Albert Pacheco, Hassan Partow, Janak Pathak, Elina Rautalahti, Laura Rio, Andrea Salinas, Vijay Samnotra, Heidi Savelli, Andrew Scanlon, Charles Sebukeera, Mohamed Sessay, Henrik Slotte, David Smith, Guido Sonneman, Jason Spensley, Ibrahim Thiaw, Muralee Thummarukudy, Stephen Twomlow, Isabelle Vanderbeck, Ole Vestergaard, Hongtao wang, Kelly West, Mick Wilson, Yunae Yi, Jochem Zoetelief, Shereen Zorba

Editor: Juliet Barnes

Produced by: United Nations Environment Programme (UNEP)

Design & Layout: Enid Ngaira (DCPI)

Printed by: UNON Publishing Services Section, Nairobi, ISO 14001:2004 - Certified

Distributed by: UNEP Division of Communication and Public Information

Cover image: Shutterstock

Disclaimer:

This publication may be reproduced in whole or in part and in any form for education or non-profit purposes without special permission from the copyright holder provided acknowledgement of the source is made. No use of this publication may be used for sale or for any other commercial purpose whatsoever without prior permission in writing from UNEP. The designation of geographical entities, and the presentation of the material herein, do not imply the expression of any opinion whatsoever on the part of the publisher or the participating organizations concerning the legal status of any country, territory or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. Trademark names and symbols are used in an editorial fashion with no intention on infringement on trademark or copyright laws.

UNEP promotes environmentally sound practices globally and in its own activities. This publication is printed on paper from sustainable forests including recycled fibre. The paper is chlorine free, and the inks vegetable-based. Our distribution policy aims to reduce UNEP's carbon footprint.

Contents

Foreword	5
1. What about water?	6
2. Water quality for life	8
Project: Science to ease social unrest in the Niger Delta	10
Project: Restoring Lake Titicaca's waters	12
Project: Protecting the unique ecosystem of Lake Tanganyika	14
Project: Keeping an eye on the freshwater quality of our ecosystems	16
Publications: Focusing on water solutions	18
3. Restoring ecosystems for livelihood	22
Project: Reviving the heart of the Mesopotamia	26
Project: Tapping nature's services for water provision in dry-land basins	28
Project: Water-saving sanitation, for the people and by the people	30
Project: Watering dry Kajiado	32
Project: Practical solutions to protecting fragile water supplies in Pacific SIDS	34
Project: Greening the blue helmets	36
Publications: Food for thought	38
4. Coping with climate change and disaster	40
Project: Restoring a life-line in the Faguibine System, Northern Mali	42
Project: Simple measures to combat climate change	46
Project: Capacity building for rainwater catchment in rural communities of Guatemala	48
Project: Chicualacuala rejoices in rain	50
Project: Reviving ancient water traditions in the Koh-e Baba (Grandfather) Mountains	52
Project: Water, water everywhere in DR Congo but is it safe to drink?	54
Publication: Climate change, migration and conflict in the Sahel	56

5. Keeping the economy green with resource efficiency	58
Project: Promoting water efficiency for green growth in Southeast Asia	60
Project: Promoting water efficiency and management in Latin America and the Caribbean	62
Publication: Water footprint and corporate water accounting for resource efficiency	64
Publication: The bioenergy and water nexus	66
Publication: International Resource Panel: Sustainable water management for a green economy	68
Publication: Water in the green economy	70
6. Water governance for a green economy	72
Project: Water in Darfur - some, for all, forever	76
Project: Protecting Rivers and people in Central Asia	78
Project: Assessing Lake Turkana to achieve peace and sustainable development	80
Project: Assessing water across boundaries	82
Project: Towards improved water management and governance in West Africa	84
Report: How well do we manage our water? Measuring global progress towards sustainable water resources management for Rio+20 and beyond	86
Forum: Breaking ground with an International Environmental Forum for basin organizations	90
Publication: The greening of water law	92

Foreword

Addressing water related challenges is one of the preoccupations we face in our day to day lives. It is also prioritized at a global level. Improving access to water is one of the key goals to meet in the Millennium Development Goals (MDGs); while many of the other goals related to human health depend indirectly on access to water. The current global trends show scenarios where maintaining our ecosystem and ecosystem services will become more difficult, therefore impacting on the provision of water that is so essential for human well-being.

In 2007 the UNEP Governing Council adopted its Water Policy and Strategy which promotes an integrated water resources management approach. This approach to improve water management incorporates environmental, economic and social factors as key pillars for ensuring sustainable management and the equitable distribution of water. Five years down the line, the UNEP interdivisional water group has developed its Freshwater Operational Strategy which will guide its work up to 2017.

This booklet emerged from the process of preparing the Freshwater Operational Strategy, thus complimenting it. It presents UNEP's comparative advantages and its catalytic role in influencing other partners and UN agencies in meeting the global water challenges. It highlights a few of the organisations achievements and success stories over time as well as contemporary water challenges for further considerations along with partners as part of the international agenda.

In brief the publication gives a snapshot of the significant contribution that UNEP with its partners have made around the world in protecting our limited fresh water resources for the improvement of livelihoods, focusing on the ecosystems approaches in line with its mandate case studies range from on-ground intervention to normative work at national, regional and global level. The cases presented here illustrate UNEP's work at the global, regional, national, catchment and sub-catchment levels. No effort has been made to depict regional balance of the cases presented.

Finally, we would like to thank the many partners that we have worked with who have helped us in shaping our work. It is our hope that we will continue working together in the next few years as we focus on the four priority areas of the Fresh Water Operational Strategy: Meeting the global water quality challenge, benefiting from aquatic ecosystems, building resilience to climate change through water management and mainstreaming resource efficiency.

Division of Environmental Policy Implementation



© Shutterstock

1. What about water?

“The achievement of all the Millennium Development Goals... hinges on the quality and quantity of available water as water plays a disproportionately powerful role through its impact on, among other things, food production and security, hygiene, sanitation and health and maintenance of ecosystem services.”

Achim Steiner, Executive Director of UNEP

It's no use closing the proverbial door after the horse has bolted, nor is it worth waiting until the world water situation is in even deeper crisis. With UNEP's water policy for 2007-2012 coming to an end, a Freshwater Operational Strategy (FOS) (2012-2016) has been prepared to address the increasing magnitude of water issues. The FOS is based on integrated water resources management, which takes a holistic approach to addressing water-related issues.

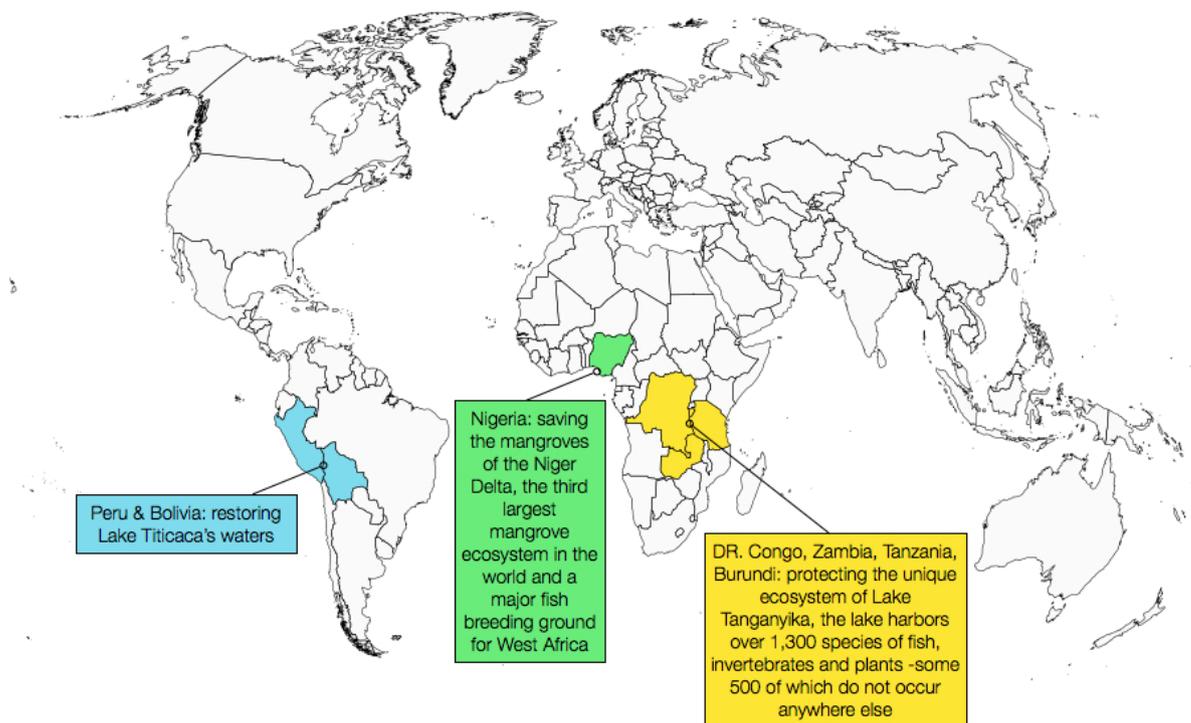
In today's world of growing human population and accelerating development, alongside the uncertainty caused by climate change, the world's ecosystems are under pressure. Water is fundamental for these ecosystems to remain alive and healthy. Water enables the provision of multiple ecosystem services and supports food production. Industries are heavily reliant on water, both in terms of production and for electricity generation. At the household level, access to clean water and adequate sanitation services are a constant cause for concern

Water is one of UNEP's top priorities as it spreads awareness of the urgent need to transform financial systems through green economy approaches. UNEP's freshwater policy and strategy promotes environmental sustainability as key to the management of all water resources. This means using integrated ecosystem management approaches, within a wider framework of internationally agreed targets and goals relevant to water and socio-economic development. An ecosystem management approach factors in the full range of ecosystems, looking at hydrological basins as a whole, upstream to downstream, while also acknowledging environmental, and social, cultural and economic needs. These include maintaining the biodiversity and health of the environment while protecting ecosystems in order that they can continue their vital, multi-tasking role to humanity: combatting climate change and pollution, while providing services to promote our health and well-being.

UNEP plays a crucial role in assisting countries and communities dealing with disasters and conflicts, while also influencing resource management in the long-term. Increasing emphasis is put on managing water as part of this holistic ecosystem approach, within a Green Economy. The Green Economy concept and ecosystem approach promote taking a broader perspective when making decisions involving water efficiency, accounting for and valuing services provided by ecosystems, while also incorporating climate change considerations into planning and management approaches.

UNEP's worldwide assessment work, publications and projects highlight a range of critical issues for freshwater, identifying new opportunities for restoring ecosystems, improving water efficiency and productivity, as well as reducing waste and re-using water. Demonstrating innovative approaches and building capacities of countries is also an important part of UNEP's work to trigger change. Some publications and projects are briefly outlined here, demonstrating how UNEP has shown that human livelihoods and the environment can reap the benefits of sustainable water management.

"Well managed, healthy freshwater systems support sustainable development and human well-being." Vision statement



2. Water quality for life

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_9413

