

# Water and Sustainable Development Reader

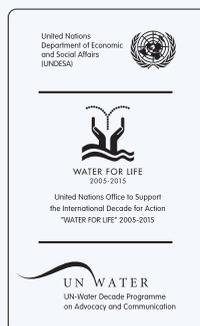
## UN-Water Decade Programme on Advocacy and Communication (UNW-DPAC)

Produced by the UN-Water Decade Programme on Advocacy and Communication (UNW-DPAC), this reader is intended for all those interested in getting familiar with issues related to water and sanitation in cities. The reader provides basic references for easy reading and some of the latest and most relevant United Nations publications on urban water and sanitation management. It also contains references for specific audiences such as water operators, educators and children. Link is provided when the publication is available online.

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United Nations Office to Support  
the International Decade for Action  
'Water for Life' 2005-2015

[www.un.org/waterforlifedecade](http://www.un.org/waterforlifedecade)



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## An overview

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### ■ **Global Sustainable Development Report. Prototype edition**

United Nations (UN). July 2014

<http://bit.ly/1mpMUFm>

*Executive summary:* <http://bit.ly/101yICD>

This report is intended as a technical, analytical and descriptive contribution to the global debate on sustainable development that digests, synthesizes and draws out policy implications of relevant scientific and social scientific research. It brings together findings of scientific assessments as input for policy deliberations at the high-level political forum and beyond. It is designed to serve as a “prototype” of a Global Sustainable Development Report.

Additionally, it focuses on global sustainable development in terms of issues, impacts, institutions and technology. The report’s target group comprises government officials, policy makers and other decision-makers at all levels. The report looks three generations into the past (1950-2013) and two generations into the future (until 2050).

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### ■ **World Economic and Social Survey 2013 Sustainable Development Challenges**

United Nations Department of Economic and Social Affairs (UNDESA). July 2013

<http://bit.ly/1wCkqyQ>

This edition of the World Economic and Social Survey focuses on sustainable development issues, especially in three important cross-sectoral issues: sustainable cities, food security and energy transformation.

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### ■ **The Future We Want**

United Nations General Assembly. September 2012

<http://bit.ly/1wEN3u7>

Outcome document of the Rio+20 conference on sustainable development,

which took place in Rio de Janeiro, Brazil, throughout June 2012.

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### ■ **Inclusive Wealth Report 2012. Measuring progress toward sustainability**

United Nations Environment Programme (UNEP), United Nations University-International Human Dimensions Programme (IHDP). June 2012

<http://bit.ly/1pXIEP3>

This report presents a framework that offers a long-term perspective on human well-being and sustainability, based on a comprehensive analysis of nations’ productive base and their link to economic development. The Inclusive Wealth Report (IWR) 2012 was developed on the notion that current economic production indicators, such as Gross Domestic Product (GDP) and the Human Development Index (HDI), are insufficient as they fail to reflect the state of natural resources or ecological conditions, and focus exclusively on the short-term, without indicating whether national policies are sustainable. The IWR 2012 features an index measuring the wealth of nations by looking into a country’s capital assets, including manufactured, human and natural capital, and its corresponding values: the Inclusive Wealth Index (IWI).

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### ■ **21 Issues for the 21st Century. Results of the UNEP Foresight Process on Emerging Environmental Issues**

United Nations Environment Programme (UNEP). February 2012

<http://bit.ly/1xDN6qh>

The purpose of the UNEP Foresight Process is to produce, every two years, a careful and authoritative ranking of the most important emerging issues related to the global environment. The output of the UNEP Foresight Process is a ranked list of 21 emerging issues described in a way that reflects their linkages to the various dimensions of sustainable development.

The issues relate to the major themes of the global environment, as well as important cross-cutting issues. The chapter on Freshwaters and Marine Issues addresses two main water-related issues: New Insights on Water-Land Interactions: Shift in the Management Paradigm; and Shortcutting the Degradation of Inland Waters in Developing Countries.

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■ **The Transition to a Green Economy: Benefits, Challenges and Risks from a Sustainable Development Perspective. Report by a Panel of Experts to 2<sup>nd</sup> Preparatory Committee Meeting for UN Conference on Sustainable Development**

United Nations Department of Economic and Social Affairs (UNDESA) Division for Sustainable Development, United Nations Environment Programme (UNEP), United Nations Conference on Trade and Development (UNCTAD). 2011

<http://bit.ly/1zlALGM>

This document contains three different papers. The first paper examines the macroeconomic policy implications of the transition to the green economy; the second focuses on the interlinked issues of trade, investment and technology; and the third considers the risks that this concept generates for developing countries and the domestic and international policies necessary to promote the green economy in these countries, according to the principles of sustainable development. This summary presents the major policy conclusions derived from these contributions. The issues of financing and technology development, transfer and cooperation are particularly highlighted by this report. The chapter on 'Challenges of the green economy concept and policies in the context of sustainable development, poverty and equity' describes the risks of

misusing the green economy concept as well as policies and measures for promoting sustainable development and a green economy. The critical role of water is emphasized through different examples.

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■ **Water in the Transition to a Green Economy. A UNEP Brief**

United Nations Environment Programme (UNEP). 2010

<http://goo.gl/LUMu8e>

The aim of this brief is to introduce the objective of UNEP's Green Economy approach to sustainable development. This approach is based on a recognized need for interventions; specifically, interventions that mobilize and refocus the global economy towards investments and expenditures in economic sectors that can catalyze the creation of decent jobs and livelihoods, sustained economic development, poverty reduction, and the regeneration of life-sustaining natural resources. The issue of water is introduced in the context of the green economy, describing the main challenges and enabling conditions.

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## Water, Sanitation and the Millennium Development Goals

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■ **(The) Millennium Development Goals Report 2014**

United Nations (UN). July 2014

<http://bit.ly/1toVA3C>

This annual report, coordinated by the Statistics Division of the United Nations Department of Economic and Social Affairs (UNDESA), provides a periodic assessment of progress towards the Millennium Development Goals (MDGs) based on data provided by a large number of international organizations within and outside the United Nations system. The aggregate figures in

the report are an overview of regional progress under the eight goals. Water and sanitation are included in the chapter, dedicated to Goal 7.

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### ■ **Progress on sanitation and drinking-water: 2014 update**

WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP). May 2014

<http://bit.ly/1ohiqrN>

This Progress on Drinking Water and Sanitation report evaluates access to drinking-water and sanitation worldwide and progress towards related targets under Millennium Development Goal 7 "to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation". Section 1 gives the status of and trends in access to improved drinking water sources and sanitation. Section 2 provides a snapshot of inequalities in access to improved drinking-water sources and sanitation. Section 3 presents efforts to strengthen monitoring of access to safe drinking water and sanitation services under a post-2015 development agenda, and the challenges associated with these efforts.

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### ■ **Global Monitoring Report 2013. Rural-Urban Dynamics and the Millennium Development Goals**

International Monetary Fund (IMF), World Bank. April 2013

<http://bit.ly/1azhjKC>

The Global Monitoring Report (GMR) is an annual report card on the world's progress toward the Millennium Development Goals (MDGs). Each annual report has a thematic focus, which is an aspect of the development agenda on which the GMR provides a more in-depth assessment. The theme of GMR 2013 is rural-urban disparities in development and ways urbanization can better help achieve the MDGs. The report highlights the need to

accelerate efforts to improve the lives of the poor in both rural and urban areas. Also, the report states that if the forces of urbanization are not managed speedily and efficiently, slum growth can overwhelm city growth, exacerbate urban poverty, and derail MDG achievements. Water and sanitation-related issues are addressed throughout the report.

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## WASH in the Post-2015 agenda

### ■ **WASH Post-2015 proposed targets and indicators for drinking-water, sanitation and hygiene**

World Bank Water and Sanitation Program (WSP). March 2014

<http://bit.ly/1g2FN8h>

This document summarizes the latest proposals for post-2015 targets developed by global Water, Sanitation and Hygiene (WASH) stakeholders. In May 2011, anticipating the debate that would inevitably arise regarding what should succeed the Millennium Development Goals (MDGs), the World Health Organization (WHO) and UNICEF convened a global stakeholder meeting to consider the targets and indicators that would be appropriate for drinking-water, sanitation and hygiene (WASH) post-2015.

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### ■ **A Post-2015 Global Goal for Water: Synthesis of key findings and recommendations from UN-Water**

UN-Water. January 2014

<http://bit.ly/1fOx1Yo>

This paper summarizes key findings and recommendations for a post-2015 global goal for water. The paper is the result of a broad technical consultation process among 31 UN-Water members and 36 partners, as well as a range of other stakeholders, which aims to inform, and provide advice and

recommendations in support to Member States in their decision-making process on the post-2015 development agenda. It proposes a set of potential targets and indicators to support a dedicated global goal for water, and contributes towards the Sustainable Development Goals (SDG) consultation process.

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■ **Post-2015 Agenda and Related Sustainable Development Goals Issue Focus: Water & Sanitation and the Role of Business**

United Nations Global Compact. January 2014

<http://bit.ly/101DAIE>

The purpose of this issue paper is to inform governments and policy makers of the responsible business community's willingness to contribute to the formation of any water and sanitation goals within the post-2015 agenda as well as future implementation efforts involving the private sector.

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■ **Report to the United Nations Secretary-General. Corporate Sustainability and the United Nations Post-2015 Development Agenda**

United Nations Global Compact. June 2013

<http://bit.ly/1tCT6k3>

This report contains business perspectives and recommendations in three areas. First, to determine the core of a post-2015 agenda, including suggested sustainable development goals and targets, categorized around the following issues: The Poverty Apex; Human Needs and Capacities; The Resource Triad of water and sanitation, energy and climate, and agriculture and Food; Enabling Environment. Second, to outline how to engage businesses and investors towards sustainable development goals. Third, to

recommend ways that Governments can advance inclusive and sustainable markets, including through multilateral cooperation and trade, pricing incentives, procurement and transparency, financing for inclusive markets, state-owned enterprises, and encouraging and supporting responsible business practices.

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■ **(The) Post 2015 Water Thematic Consultation Report**

United Nations Children's Fund (UNICEF), United Nations Department of Economic and Social Affairs (UNDESA), UN-Water. August 2013

<http://bit.ly/18o74KP>

This report results from sifting through and distilling the hundreds of stakeholder contributions made in response to dozens of practical questions raised during the 6-month "World We Want" stakeholder consultation. The questions were organized around the interdependencies regarding access to drinking water, sanitation and hygiene. Recommendations emerged for a new development framework that calls for reducing inequalities around water through rights-based approaches to service provision and governance.

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## Water Resources Management

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■ **United Nations World Water Development Report 4 'Managing water under uncertainty and risk'. Volumes 1, 2, 3**

United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations World Water Assessment Programme (WWAP), UN-Water. March 2012

<http://bit.ly/1zfdJ9q>

The World Water Development Report gives an overall picture of the state of the world's freshwater resources and analyses

pressures from decisions that drive demand for water and affect its availability. It offers tools and response options to help leaders in government, the private sector and civil society address current and future challenges, and suggests potential institutional reforms. This 4<sup>th</sup> edition introduces a new thematic approach (Managing Water under Uncertainty and Risk), and directly reports from the regions, highlighting hotspots. It reports on various challenge areas, and aims to encourage all stakeholders both in and out of the 'water box' to fully engage in the decision making processes. Volume 1, 'Managing Water under Uncertainty and Risk,' focuses on status, trends, challenges and the issue of managing water under uncertainty and risk. Volume 2, 'Knowledge Base,' is composed of fourteen challenge area reports, five regional reports and three special reports to ensure a comprehensive coverage. Volume 3, 'Facing the Challenges,' is dedicated to case studies from the different regions.

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■ **Status Report on the application of integrated approaches to water resources management 2012**

United Nations Environment Programme (UNEP), UN-Water. June 2012

<http://bit.ly/HVnK3X>

Based on a global survey assessing the progress and outcomes of the application of integrated approaches to the development, management and use of water resources, this UN-Water report includes lessons learned, recommendations and areas for action. The report also provides guidance for establishing a regular international monitoring and reporting framework to promote sustainable development and management of water resources.

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## Water quality

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■ **Natural Capital Accounting and Water Quality: Commitments, Benefits, Needs and Progress**

The Economics of Ecosystems and Biodiversity (TEEB). December 2013

<http://bit.ly/1od2wAx>

This briefing note outlines existing guidance and examples on water quality accounting. Inspired by the growing global focus on natural capital accounting, it identifies the ongoing challenges related to the development of natural capital accounting and water quality accounting in order to encourage debate and commitment towards effective water and biodiversity policy.

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■ **Policy brief on water quality**

UN-Water. March 2011

<http://bit.ly/1Dv3TxI>

This policy brief is a collaborative output of UN-Water members and partners directed at practitioners, policymakers and decision-makers in water resource management and other relevant sectors. It outlines the challenges and trends, drivers and impacts related to water quality. It also presents four strategies that form the basis of policy solutions, and concludes by detailing a series of specific recommendations by which these solutions are achievable.

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■ **Sick Water? The central role of wastewater management in sustainable development. A Rapid Response Assessment**

United Nations Environment Programme (UNEP), United Nations Human Settlements Programme (UN-Habitat), GRID-Arendal. 2010

<http://bit.ly/x0QRL6>

This report identifies the main threats to human and ecological health, and the consequences of poor wastewater

management and degrading sewage systems. It also presents opportunities where appropriate policy and management responses over the short and long terms can trigger employment, support livelihoods, boost public and ecosystem health and contribute to more intelligent water management.

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## Risks

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### ■ **Health and environment: communicating the risks**

World Health Organization (WHO). 2013  
<http://bit.ly/1dXTwvH>

The WHO Regional Office for Europe organized a workshop in Trento, Italy, to enable participants to share experience in the management and communication of environmental risks, such as those related to the lack of water and sanitation. This report builds on the presentations and discussions from the workshop and presents a series of key messages useful to regional and local authorities, as well as to risk managers in general.

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### ■ **Climate Change, Disaster Risk and the Urban Poor. Cities Building Resilience for a Changing World**

International Bank for Reconstruction and Development (IBRD), World Bank. April 2012  
<http://bit.ly/1sDTh9m>

This study analyses the key challenges facing the urban poor given the risks associated with climate change and disasters, particularly with regard to the delivery of basic services, and identifies strategies and financing opportunities for addressing these risks. The main audience for this study includes mayors and other city managers, national governments, donors and practitioners in the fields of climate change, disaster-risk management and urban development. The study is organized

in four chapters covering: (1) a broad look at climate change and disaster-risk in cities of the developing world, with particular implications for the urban poor; (2) analysis of the vulnerability of the urban poor; (3) discussion of recommended approaches for building resilience for the urban poor; and (4) review of the financing opportunities for covering investments in basic services and other needs associated with climate and disaster-risk. Flood management and urban planning, water supply and sanitation, and wastewater management are among the issues covered by the report.

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### ■ **Integrated Flood Management (IFM) Concept Paper**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). 2009  
<http://bit.ly/1rzmcvH>

This paper encourages the use of the resources of a river basin as a whole, employing strategies to maintain or augment the productivity of floodplains, while at the same time providing protective measures against losses due to flooding. Also, this paper includes a number of emerging issues, such as risk management, urban floods, climate variability and change and adaptive management.

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## By sector

### Adaptation to climate change

### ■ **National Drought Management Policy Guidelines – A Template for Action**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Integrated Drought Management Programme (IDMP). 2014  
<http://bit.ly/1rSsTtf>

This production is a template for action that countries may implement to develop

a national drought management policy and drought preparedness/mitigation plans. It provides a 10-step process, adaptable by countries to reflect their institutional, infrastructure, legal, socio-economic and environmental contexts. Case studies from Brazil, Mexico, Morocco and the USA are within, and will be continuously updated based on the experiences gained in the guidelines' application. The guidelines respond to a need for action oriented drought policies, which Governments articulated at the High-Level Meeting on National Drought Policies.

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■ **Food wastage footprint. Impacts on natural resources**

Food and Agriculture Organization of the United Nations (FAO). September 2013  
<http://bit.ly/1bZQqF3>

This report provides a global account of the environmental footprint of food wastage along the food supply chain, focusing on impacts on climate, water, land and biodiversity. The impact of food wastage was assessed in the context of the complete supply chain, from the field to the end-of-life of food. A specific chapter dedicated to water quantifies the amount of water wasted due to food waste.

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■ **The State of Food and Agriculture 2012. Investing in agriculture for a better future**

Food and Agriculture Organization of the United Nations (FAO). December 2012  
<http://bit.ly/1nPxaBr>

This edition of The State of Food and Agriculture, "Investing in agriculture for a better future," makes the case that increasing the levels and the quality of investment in agriculture is central to achieving the hunger eradication goal. It also argues that we need to change the way we invest in agriculture; further,

arguing that insecure tenure for land, water and other resources can constitute a serious disincentive to invest in agriculture and that negative environmental impacts, inter alia, depletion of natural resources such as soil, water, forests and biodiversity, may also be significant threats to investment in agriculture. As such, water-related issues are addressed all along the report.

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■ **Coping with water scarcity. An action framework for agriculture and food security**

Food and Agriculture Organization of the United Nations (FAO). August 2012  
<http://bit.ly/1wLtnbH>

This report aims to provide a conceptual framework to address food security under conditions of water scarcity in agriculture. The purpose of this report is twofold. First, to define a water accounting framework that allows water scarcity to be interpreted objectively. Second, to indicate where and how agricultural water management can play a more proactive and effective role in response to increasing concerns over global freshwater scarcity. The document offers views on the conceptual framework from which FAO's water scarcity programme should be based, proposes a set of definitions associated with the concept of water scarcity and indicates the main principles on which FAO should base its action in support to its member countries.

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■ **The State of the World's Land and Water Resources for Food and Agriculture. Managing systems at risk**

Food and Agriculture Organization of the United Nations (FAO). 2011  
<http://bit.ly/1nPxkc5>

This report examines the kinds of production responses needed to meet

demand. It also assesses the potential of the world's land and water resources to support these desired increases in output and productivity. Risks and tradeoffs are examined, and options reviewed for managing these without harm to the resource base. Chapter 1 analyses the current status of land and water resources together with trends. It assesses the biophysical and technical aspects of the resources and their use, and presents projections for the year 2050. Chapter 2 reviews current institutional arrangements, and assesses socio-economic and environmental impacts of current land and water management. Chapter 3 reviews current and future threats to land and water, and their implications for a series of major systems at risk. Chapter 5 assesses the institutional responses at local, national and international levels, with an analysis of lessons for the future. Finally, Chapter 6 draws conclusions and advances policy recommendations.

## Industry

### **Inclusive and Sustainable Industrial Development. Creating shared prosperity | Safeguarding the environment**

United Nations Industrial Development Organization (UNIDO). February 2014

<http://bit.ly/1E0RYtJ>

UNIDO is promoting inclusive and sustainable industrial development (ISID) to harness the full potential of industry's contribution to the achievement of sustainable development, and lasting prosperity for all. This brochure introduces some of the key elements and issues related to this new vision. It will shape the future operations, spirit and direction of UNIDO for many years to come.

### **UNIDO Green Industry. Policies for supporting Green Industry**

United Nations Industrial Development Organization (UNIDO). May 2011

<http://bit.ly/qhIEsY>

This report identifies the broad range of policy measures required by national or federal governments to promote and facilitate the greening of industries. The report focuses on Small to Medium Enterprises (SMEs) in the manufacturing sector. However, the issues raised are equally relevant for other industry sub-sectors, (e.g. services and extraction). Emphasis is placed on policies which impact sustainable production rather than consumption. The water issue is addressed in various chapters.

## Cities

### **Planning, Connecting and Financing Cities-Now. Priorities for City leaders**

World Bank. January 2013

<http://bit.ly/1yHuc36>

This report provides a framework to help city leaders make informed decisions for sustainable development in their cities. What must be done to improve living conditions, especially in slums and hazard-prone areas? Should a city expand the coverage and quality of basic infrastructure services (water, sanitation)? How should a city manage its physical form? These are some of the questions this report tries to answer.

### **State of the World's Cities 2012/2013. Prosperity of Cities**

United Nations Human Settlements Programme (UN-Habitat). October 2012

<http://bit.ly/Tm0X0i>

The State of the World's Cities Report 2012 presents some of the underlying factors behind the financial, economic, environmental, social and political crises that

have strongly impacted cities. Chapter 2.2, 'Urban Infrastructure: Bedrock of Prosperity,' addresses the issue of 'Water Supply: When Good Governance Changes the Equation'.

### ■ **Urban Flood Management in a Changing Climate**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). February 2012

<http://bit.ly/1tLrF8O>

The main purpose of this piece is to examine major aspects of urban flood management through the context of climate change. This document deals with the “management” process more than the technical, structural, and capital-intensive strategies usually pursued in coping with urban floods. It also explores the vital interaction and overlap of urban flood management with land use management, urban planning, socio-economic development and public awareness and participation. It includes the concepts from “Flood management in a changing climate” and “Urban flood risk management.” Simultaneously, it describes specific issues and practices related to climate change in an urban environment and to increasing resilience of the population.

### ■ **Integrated Urban Flood Management**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM) in cooperation with Cap-Net. September 2011.

<http://bit.ly/1wEPxsv>

This training manual addresses a broad spectrum of issues in the emerging field of integrated urban flood management. It intends to provide best practice concepts and applications to further inform and engage stakeholders in promoting integrated and cooperative approaches in

water management in general. The manual integrates expertise from disciplines such as hydrology, sociology, economics, architecture, urban design, construction and water resources engineering and management. The subject is approached from an international perspective and case studies, exercises, expert advice and literature recommendations are included to support the theory and illustrations.

### ■ **Urban Flood Management**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM) in cooperation with Cap-Net. May 2007.

<http://bit.ly/1E0SMPe>

The document was prepared as a basis for a course aimed at decision-makers, and professionals of various fields of knowledge that work in the field of urban environment such as administrators, legislators, engineers, architects, geologists and biologists. The course sought to present a comprehensive view of the management of urban rainwater, which also involves urban drainage and river flooding in cities. The course did not address project-specific aspects, instead it discussed the strategic aspects of management and interfaces the various aspects of urban water and other elements of city planning and management.

### Ecosystems

### ■ **System of Environmental Economic Accounting 2012 Central Framework**

United Nations, European Union, Food and Agriculture Organization of the United Nations (FAO), International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD), World Bank. March 2014

<http://bit.ly/1iSeGh3>

This document is a multipurpose conceptual framework for understanding

the interaction between the environment and the economy. It provides a statistical framework consisting of a comprehensive set of tables and accounts, which guide the compilation of consistent and comparable statistics and indicators for policy making, analysis and research. By providing internationally agreed upon concepts and definitions on environmental-economic accounting, it is an invaluable tool for compiling integrated statistics, deriving coherent and comparable indicators and measuring progress towards sustainable development goals. Category 3, titled 'Physical flow accounts,' has a section on physical flow accounts for water, including scope of water flows, physical supply and use table for water and water aggregates. In Category 5, 'Assets,' there is a section on asset accounts for water resources.

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#### ■ **Applying Environmental Assessment for Flood Management**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). June 2013.

<http://bit.ly/1Dv5luL>

This tool provides flood management practitioners a generic approach for integrating environmental considerations into the decision making processes in basin flood management. As such, it provides generic approaches for conducting Strategic Environmental Assessments (SEA) at the basin flood management planning stage and Environmental Impact Assessments (EIA) at the project design and implementation stage.

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#### ■ **TEEB for water and wetlands**

Ramsar Convention on Wetlands, The Economics of Ecosystems and Biodiversity (TEEB). February 2013

<http://bit.ly/1sDUHkf>

This report underlines the fundamental importance of wetlands in the water cycle

and in addressing water objectives reflected in the Rio+20 agreement, the Millennium Development Goals and forthcoming post-2015 Sustainable Development Goals. In order to encourage additional policy momentum, business commitment, and investment in the conservation, restoration and wise use of wetlands, the report presents insights on critical water-related ecosystem services and also on the wider ecosystem services from wetlands,

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#### ■ **Green Accounting and Data Improvement for Water Resources**

United Nations World Water Assessment Programme (WWAP). August 2012

<http://bit.ly/1tCTVcp>

This paper outlines key initiatives of different agencies, including the initiatives of the United Nations (UN) System of Environmental-Economic Accounts for Water (SEEAW) and Eurostat, the recent efforts of the Organisation for Economic Co-operation and Development (OECD) and that of the European Environment Agency (EEA), to incorporate water-related indicators into wider systems of environmental accounting, to move towards raising water's role in economic and environmental policy-making.

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#### ■ **GEO-5 Global Environment Outlook 5. Chapter 4 on Water**

United Nations Environment Programme (UNEP). June 2012

<http://bit.ly/1ziHdh1>

The GEO Reports analyze environmental states and trends at the global and regional scales, describe plausible outlooks for various time frames and formulate policy options. The GEO-5's Water Chapter assesses progress towards achieving water-related goals in major multilateral environmental agreements identified by the GEO-5 High-Level

Intergovernmental Advisory Panel and regional consultations, and highlights a series of messages. The chapter focuses on the state, trends and impacts of the water environment, with references to drivers (Part 1) and responses (Parts 2 and 3), and other environmental sectors (Parts 2, 3, 5 and 6) where appropriate.

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### ■ **Measuring Water Use in a Green Economy**

United Nations Environment Programme (UNEP). May 2012

<http://bit.ly/1zfeejQ>

This report analyses the different ways for quantifying and accounting for water flows and productivity within the economy (including environmental needs). The report provides the current state of knowledge of the different indicators and tools for quantifying water productivity, and highlights why this is important for developing robust allocation and management systems that preserve the natural capital. Also, it focuses on two main elements: (1) the conceptual background and knowledge on how water use puts pressure on the environment; and (2) methodologies to quantify water availability and use and how this influences ecosystems.

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### ■ **Conservation and Restoration of Rivers and Floodplains**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). May 2012.

<http://bit.ly/1pXODTZ>

This tool seeks to assist practitioners mainly through review and description of options for conservation and restoration of rivers and floodplains that can assist flood management practitioners in addressing various flood management objectives. Also, this tool provides an overview of current practices that could help flood management

practitioners to identify and establish the values of ecosystem services generated under different conservation, restoration and flood management scenarios.

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### ■ **Releasing the Pressure: Water Resource Efficiencies and Gains for Ecosystem Services**

United Nations Environment Programme (UNEP). March 2012

<http://bit.ly/1p0tcH9>

This document discusses the need to balance short-term water productivity gains - particularly in agriculture - with the long-term role that water flows provide for maintaining sustainable landscape ecosystem services, and serving multiple benefits to human well-being. The document provides a summary of concepts around the nexus of water productivity, water flows in landscapes and ecosystem services. It gives examples (through case studies) on the trade-offs and opportunities between water productivity improvements and the water-related services provided by other ecosystems.

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### ■ **An Ecosystem Services Approach to Water and Food Security. Synthesis Report**

International Water Management Institute (IWMI), United Nations Environment Programme (UNEP). August 2011

<http://bit.ly/1rzntCI>

This publication looks at how an ecosystem services approach to the management of water and other natural resources, and the policies that affect that management, can create more stable and sustainable food production and enhanced food security. It brings together the best thinking available from various fields to tease out the interconnections between ecosystems, water and food; suggests a way forward; and identifies

specific ecosystem-based opportunities to increase food production in ways that make optimal use of water resources, protect the resource base, and improve the income and food security of poor people. The main body of this publication focuses on three main areas that require change: (1) environmental protection; (2) water resources management; (3) and food production (agriculture, aquaculture and livestock). This publication offers the basis for a multisector agenda on food security, while also providing sector-specific recommendations to guide policymakers and practitioners in ministries and departments responsible for the environment, water, agriculture, fisheries, forestry and livestock as well as donors, international agencies and nongovernmental organizations (NGOs) investing and working in these sectors.

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■ **Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication. Chapter on 'Water. Investing in natural capital'**

United Nations Environment Programme (UNEP). February 2011

<http://bit.ly/19AkbDx>

This report aims to provide practical guidance to policy makers on what reforms are needed to unlock the productive and employment potential of a green economy. Chapter 3, "Water: investing in natural capital," has three broad topics. First, it highlights the importance of providing all households with sufficient and affordable access to clean water supplies and adequate sanitation. Second, it makes a case for early investment in water management and infrastructure, including ecological infrastructure. The potential to make greater use of biodiversity and ecosystem services in reducing water treatment costs and increasing productivity is

emphasised. Third, the chapter provides guidance on the suite of governance arrangements and policy reforms, which if implemented, can sustain and increase the benefits associated with making such a transition.

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■ **Ecosystems for Water and Food Security. Background document**

International Water Management Institute (IWMI), United Nations Environment Programme (UNEP). 2011

<http://bit.ly/1wCsaRs>

The purpose of this document is to show how sustainable ecosystems, explicitly agroecosystems, are essential for water management and food production. This document provides background evidence illustrating the 3-way interdependence between ecosystems, water and food security to demonstrate how ecosystem management can be improved to ensure water availability and to avoid future food crises. It focuses primarily on how to achieve sustainable food production from a biophysical perspective, without specifically addressing the key social and institutional issues related with food security. Several of those are however highlighted throughout the text to remind the reader that these remain a critical component to ensure food security for the poor and socially-disadvantaged groups.

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■ **Environmental Aspects of Integrated Flood Management**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). August 2006.

<http://bit.ly/ZZnBEW>

This paper contains five main sections titled: (1) Setting the Scene: Environment and Sustainable Development; (2)

Understanding the Basic Concepts of the Morphology and Ecology of Rivers and their Flood Plans; (3) Flood Processes and Ecosystem Services: Interrelationships; (4) Flood Management Interventions and Ecosystems; and finally, (5) Factoring Environmental Considerations in Decision-making Processes.

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## Means of implementation

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### An overview

#### ■ **IFM as an Adaptation Tool for Climate Change: Case Studies**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). February 2011

<http://bit.ly/1xDV8zF>

This Tool introduces strategies for climate change adaptation and implementation of these strategies in the context of flood management. In total, nine case studies from the US, UK, France, Germany, Netherlands, Japan, China, South Korea, and EU are presented. The adaptation strategies are described especially from the point of flood risk assessment. Further, each country formulates their own adaptation measures and designates responsible agencies for their implementation.

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#### ■ **Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication. Chapter on 'Enabling conditions'**

United Nations Environment Programme (UNEP). August 2011

<http://bit.ly/1thx7xl>

This chapter focuses on the changes that could be introduced in the short to medium term to support the transition to a green economy. It includes measures that can be taken by governments at all levels, from the

executive power to ministries (such as those responsible for environment, finance and the general economy), and provincial and local authorities. It begins with a discussion of five key areas of policy-making: (1) how public investment and spending can be used to leverage private investment, including public infrastructure projects, green subsidies and sustainable public procurement; (2) how market-based instruments, such as taxes and tradable permits, can level the playing field and provide market incentives in order to promote the greening of key sectors; (3) how subsidy reform should be implemented in areas that deplete natural capital; (4) how a country's regulatory framework of legislation, institutions and enforcement can be designed to channel economic energy into environmentally and socially valuable activity; and (5) how international frameworks that regulate economic activity can play a role in driving a green economy. In conclusion, the chapter discusses additional supporting measures that may be required, namely capacity building and investment in training and education.

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#### ■ **Conference book from the International UN-Water Conference 'Water in the Green Economy in Practice: Towards Rio+20'. A water toolbox or best practice guide of actions**

UN-Water Decade Programme on Advocacy and Communication (UNW-DPAC). November 2011

<http://bit.ly/1vfidTc>

This conference book presents the main outcomes of the International UN-Water Conference "Water in the Green Economy in Practice: Towards Rio+20", which took place in Zaragoza, Spain, from 3 to 5 October 2011. The objective of this document is to provide proposals based on the analysis of existing practice, reflecting

specifically on lessons from implementation, scaling up and the relevance for developing and transition countries. It proposes six tools which can be used to promote change and support the transition towards a green economy: (1) economic instruments; (2) sustainable financing; (3) investments in natural capital; (4) technology; (5) green jobs; and (6) water planning.

## Technology

### Options for facilitating the development, transfer and dissemination of clean and environmentally sound technologies

United Nations General Assembly. Report of the Secretary-General. August 2013

<http://bit.ly/1wcvkQR>

The present report, prepared pursuant to General Assembly resolution 67/203, complements the analysis, findings and recommendations contained in the report of the Secretary-General on options for a technology facilitation mechanism (A/67/348). It proposes additional background information and details on options for the way forward to facilitate the development, transfer and dissemination of clean and environmentally sound technologies. In particular, it reports on the deliberations at the workshops on the development, transfer and dissemination of clean and environmentally sound technologies in developing countries that were convened by the President of the Assembly in April and May 2013, as well as on recent written inputs received from Member States and the United Nations system.

### Addressing the Technology Divides: Critical Issues in Technology and SDGs

Women's Major Group. December 2013

<http://bit.ly/1FV5X6q>

This Briefing Paper on Science, Technology and Innovation (STI) for the 6th Session of

the Open Working Group on Sustainable Development Goals (SDGs) addresses critical issues in technology and the SDGs with a focus on the "Technology Divides."

### Options for a facilitation mechanism that promotes the development, transfer and dissemination of clean and environmentally sound technologies

United Nations General Assembly. Report of the Secretary-General. September 2012

<http://bit.ly/1tLuPto>

The present report has been prepared pursuant to General Assembly resolution 66/288, in which the Assembly endorsed the outcome document of the United Nations Conference on Sustainable Development, entitled "The future we want." Paragraph 273 of the annex to the resolution contains two requests. First, that relevant United Nations agencies identify options for a facilitation mechanism that promotes the development, transfer and dissemination of clean and environmentally sound technologies. Second, a request that the Secretary-General make recommendations regarding the facilitation mechanism to the Assembly at its sixty-seventh session. The report summarizes recent trends, provides an overview of the proposals received and outlines recommendations on the functions, format and working methods of a technology facilitation mechanism, as well as on a potential way forward to achieve improved technology facilitation.

### World Economic and Social Survey 2011. The Great Green Technological Transformation

United Nations Department of Economic and Social Affairs (UNDESA). 2011

<http://bit.ly/pJMvrK>

The World Economic and Social Survey is the annual flagship publication on major

development issues prepared by the United Nations Department of Economic and Social Affairs (UNDESA). The 2011 Survey introduces collective efforts to achieve a much-needed technological transformation to a greener, cleaner global economy. The Survey illustrates the feasibility of such a transformation with data, analysis and projections. Chapter II, 'The Great Green Technological Transformation,' focuses on the clean energy technological transformation; solar water heater technology and micro-hydroelectricity are highlighted as some of the best examples of green energy technologies. Chapter III, 'Towards a truly green revolution for food security,' introduces watershed development with the case study of India. The water and sanitation issue is also described in Chapter IV, 'Reducing human harm from natural hazards.'

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■ **Water and the Green Economy: Information Briefs. Water and Technology in the Transition to the Green Economy**

UN-Water Decade Programme on Advocacy and Communication (UNW-DPAC). September 2011

<http://bit.ly/1wEQdxY>

For the purposes of the International UN-Water Conference "Water in the Green Economy in Practice: Towards Rio+20", 3-5 October 2011, Zaragoza, Spain, the UN-Water Decade Programme on Advocacy and Communication (UNW-DPAC) produced a series of information briefs on different issues and tools addressed by the conference. The information briefs introduce the main challenges, opportunities and key facts related to each of the tools identified. These briefs also outline a set of practices and approaches for transitioning to the green economy as highlighted by the organisations participating in the conference. These approaches are illustrated with case studies featured in the conference. It focuses on the potential

contributions of technology to the transition towards a green economy, and the opportunities as well as challenges for technology in a green economy.

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**Financing**

■ **Follow-up to and implementation of the Monterrey Consensus and Doha Declaration on Financing for Development**

United Nations General Assembly. Report of the Secretary-General. September 2013.

<http://bit.ly/1wEQhOf>

Pursuant to General Assembly resolution 67/199, the present report provides an annual assessment of the state of implementation of the Monterrey Consensus and the Doha Declaration on Financing for Development. Six thematic areas present the recent developments: (1) mobilizing domestic financial resources for development; (2) mobilizing international resources for development: foreign direct investment and other private flows; (3) international trade as an engine for development; (4) increasing international financial and technical cooperation for development; (5) external debt; and (6) addressing systemic issues: enhancing the coherence and consistency of the international monetary, financial and trading systems in support of development. Other developments related to strengthening the financing for development of an intergovernmental follow-up process are presented in a section entitled "staying engaged".

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■ **Risk Sharing in Flood Management**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). July 2013.

<http://bit.ly/1thxR5P>

This tool introduces risk reduction, risk retention and risk transfer through a strategic mix of structural and

non-structural measures for flood preparedness, response and recovery. Risk reduction options also include how the cost of risk reduction measures can be equitably shared in society. It intends to provide a conceptual “bridge” between the classically engineering focused flood management professionals and the sectors specialized in risk management. In its second edition, the Tool was enhanced with recent practices and examples of risk sharing methods including crop insurance, catastrophe risk insurance facility and index based insurance, which were added to provide more options in flood risk sharing as an instrument in managing floods.

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■ **Promoting Water Cooperation.**  
**Information brief on Financing**

UN-Water Decade Programme on Advocacy and Communication (UNW-DPAC). January 2013

<http://bit.ly/1nPziJm>

For the purposes of the International Year of Water Cooperation and the International Annual UN-Water Zaragoza Conference 2012/2013 "Preparing for the 2013 International Year. Water Cooperation: Making it Happen!," which took place in Zaragoza, Spain, from 8 to 10 January 2013, UNW-DPAC produced a series of information briefs on different issues and tools on water cooperation. This particular brief provides information on financing water cooperation discussing: What are the main challenges in financing water cooperation processes? Which tools are available for financing water cooperation? What are the main sources?

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■ **Investing in Water Infrastructure:**  
**Capital, Operations and Maintenance**

World Bank. November 2012

<http://bit.ly/1E0V2pl>

This paper outlines the major challenges related to financing the gap in global water

infrastructure, including those systems that provide urban and rural water supply, and sanitation and irrigation services. The paper synthesizes the extensive body of literature on this subject, while providing some examples of historical trends and proposing a reform agenda to assist countries in weathering the current financial climate. Section 1 introduces the linkages between water infrastructure and growing global challenges, including food and energy security as well as climate change. Section 2 describes investment needs in the sector and details various traditional funding sources. Section 3 proposes a 5 step reform cycle for making better use of limited funding in the sector. Tools for making these improvements are outlined in Section 4. The paper concludes with Section 5, a summary of the challenges and recommendations moving forward.

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■ **International Guidebook of Environmental Finance Tools. A Sectoral Approach: Protected Areas, Sustainable Forests, Sustainable Agriculture and Pro-Poor Energy**

United Nations Development Programme (UNDP). August 2012

<http://bit.ly/1FV6iSa>

The International Guidebook of Environmental Finance Tools provides guidance on developing and implementing the most commonly used, widely applicable, and potentially high-impact environmental finance tools. It aims to define and analyse the primary tools that are already in use and that can be applied globally to advance sustainable development. The tools explored in the Guidebook have been successfully applied to protect the environment and promote pro-poor and predominantly rural development. They were identified through a review of over 100 environmental finance case studies from over 30 developing

countries across four sectors: pro-poor energy, protected areas, sustainable agriculture and sustainable forestry.

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### ■ **Identifying the Potential for Results-Based Financing for Sanitation**

World Bank Water and Sanitation Program (WSP). November 2011

<http://bit.ly/1wLtEv7>

This working paper intends to identify practical ideas for advancing the use of innovative financing mechanisms focused on results and performance, seeking to support the delivery of sustainable sanitation services. To this end, the document reviews: (1) the rationale for examining Results-Based Financing (RBF) instruments for sanitation; (2) current issues with sanitation, where “misaligned incentives” mean that inadequate services are being provided or demanded; (3) how public funding, if allocated based on results, could help with realigning incentives; and (4) common issues and challenges with the design of RBF instruments.

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### ■ **Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication. Chapter on ‘Finance’**

United Nations Environment Programme (UNEP). February 2011

<http://bit.ly/10yq9ul>

This report is aimed at providing practical guidance to policy makers on what reforms are needed to unlock the productive and employment potential of a green economy. The chapter ‘Finance: supporting the transition to a global green economy’ examines how the green economy is currently financed, and explores the priorities and potential methods for increasing this investment. The chapter seeks to make the case for scaling up financing and amplifying the financial sector’s role as an agent of change. The

analysis emphasises investing, lending by banks, and insurance, focused primarily on private sector sources of finance.

Reference is also made to the enabling and complementary role of governments, development finance institutions and other non-private sector actors.

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### ■ **Water and the Green Economy: Information Briefs. Water Financing in the Transition to the Green Economy**

UN-Water Decade Programme on Advocacy and Communication (UNW-DPAC). September 2011

<http://bit.ly/1tLw4Zw>

This information brief focuses on the ways water financing can contribute to the transition towards a green economy. It also presents the challenges and opportunities for water financing in a green economy and highlights some practical experiences.

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### ■ **Driving a Green Economy through Public Finance and Fiscal Policy Reform**

United Nations Environment Programme (UNEP). 2010

<http://bit.ly/n82NBu>

This working paper explores the linkages and options available to policy-makers considering ways to drive and accelerate the transition to greener, more resource-efficient and socially-inclusive economic growth. It explores economic policy issues related to transitioning to a green economy, with particular focus on fiscal instruments and public finance. Section II discusses the key economic issues and principles related to the green economy. Section III provides an overview of policy reform issues, including those related to the coordination of different measures. Section IV discusses the critical role of green taxes in influencing the prices of goods and services affecting environmental conditions and natural resource use, focusing on lessons from

previous environmental fiscal reforms, key policy design and implementation issues, and reform priorities. Section V discusses the role of expenditure policies in promoting the transition to a green economy, including green subsidies, direct government expenditure (for example on infrastructure) and the reform of environmentally harmful subsidies.

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### ■ **Economic Aspects of Integrated Flood Management**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). June 2007

<http://bit.ly/1vfmARE>

This document discusses four topics related to implementing integrated flood management. The beginning topic is ‘Making Choice: Decision-making & economic analysis’ followed by ‘Cost-benefit analysis.’ Next is ‘Economic Evaluation Techniques,’ and finally the topic ‘Sources of Financing’ is presented.

#### Capacity-development

### ■ **Bridging Knowledge and Capacity Gaps for Sustainability Transition: A Framework for Action**

United Nations Office for Sustainable Development (UNOSD). March 2013

<http://bit.ly/1sDWYvV>

This document summarizes the “Expert Consultation on Knowledge and Capacity Needs for Sustainable Development in Post Rio+20 Era” to country representatives and experts, the United Nations system, advocacy networks, civil society and academic and policy institutions organized by the United Nations Office for Sustainable Development (UNOSD) together with its partners in Incheon, Republic of Korea, from 6 to 8 March 2013. It takes stock of existing knowledge and capacity building models,

platforms and initiatives contributing towards the transition to sustainability; examines how Member States and other stakeholders could make the best use of available resources and platforms to meet their knowledge and capacity needs; and assesses success stories, trends, needs and gaps in knowledge and capacity for advancing sustainable development in a post-Rio+20 context.

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### ■ **Water and the Green Economy. Capacity Development Aspects**

UN-Water Decade Programme on Capacity Development (UNW-DPC). May 2012

<http://bit.ly/1pXQgRA>

This publication gives special attention to the needs related to capacity development for water resources management in the context of the green economy, including water supply and sanitation, by showcasing successful theoretical and practical approaches. The 11 case studies in this book cover the entire range from innovative design and delivery of capacity development programmes related to water in the green economy, market mechanisms and quality control procedures supporting capacity development success towards the practical implementation of programmes to enhance individual and institutional capacity.

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### ■ **Water and Capacity Development in the Transition to the Green Economy Information Brief**

UN-Water Decade Programme on Advocacy and Communication (UNW-DPAC). September 2011

<http://bit.ly/1vfmTff>

This information brief focuses on how capacity development can contribute to the transition towards a green economy, introduces the main challenges and outlines various practical approaches for transitioning to a green economy.

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## ■ Organizing Community Participation for Flood Management

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). March 2008

<http://bit.ly/1tCURh2>

This tool provides general guidelines for effectively organizing community activities to ensure participation at various levels of decision making and capacity building during flood management. To build necessary institutional frameworks to enhance community participation, several issues related to the engagement of flood managers, NGOs and policy makers to harmonize community activities with other development policies and natural disaster are also addressed.

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## ■ Social Aspects and Stakeholder Involvement in Integrated Flood Management

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). August 2006

<http://bit.ly/1Dv9iVN>

This document addresses the topics of 'People and Floods,' 'Social Aspects of Flood Risk Reduction,' 'Stakeholder Involvement in Integrated Flood Management,' and 'Enhancing Stakeholder Involvement.'

### Governance frameworks

## ■ User's Guide on Assessing Water Governance

UNDP Water Governance Facility. August 2013

<http://bit.ly/19SrDg6>

This guide is a resource for stakeholders to conduct water governance assessments more effectively within their local or national context. It provides practical advice on

what to consider when designing and implementing an assessment. It also offers guidance on a number of concrete topics, such as the governance aspects that are important to look at, the choice of indicators, data collection, how to manage multi-stakeholder processes and how to use the findings to influence policy.

Specifically, this guide enables users to: understand how assessments can inform policy-making; select, adapt and develop appropriate assessment frameworks and indicators for governance assessments in the water sector; design multi-stakeholders approaches that further dialogue and consensus-building around water sector reform, and strengthen accountability by offering an official track record of government performance and a platform for public scrutiny by a wide range of actors; and implement water governance assessments to drive reform. The guide is structured around three overarching questions: why, what and how to assess water governance. It is divided into six main chapters and also includes a Source Guide. The Source Guide presents an overview of selected tools and cases of water governance assessments in different regions.

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## ■ Transboundary Flood Management

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). May 2013

<http://bit.ly/1u6QywB>

This document discusses transboundary flood risk management in regard to shared river basins, involving multiple Governments and their people. Specific tasks of joint monitoring, forecasting and early warning, coordinated risk assessment and joint planning of measures, and appropriate legal and institutional frameworks are all necessary. The tool on transboundary aspects of flood

management focuses on common problems, objectives and approaches of flood management in transboundary basins, outlines major steps in arranging transboundary cooperation for flood management and presents approaches in sharing knowledge for the management of transboundary flood risks.

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### ■ Trends in local groundwater management institutions

Food and Agriculture Organization of the United Nations (FAO), Global Environmental Facility (GEF), International Association of Hydrogeologists (IAH), UNESCO-International Hydrological Programme (IHP), World Bank. 2012

<http://bit.ly/Yt5L69>

This brief account of groundwater institutions attempts to point to discernible trends in the evolution of local groundwater management institutions and their effectiveness in sustaining the practice of groundwater use. It looks at the scope for securing benefits through improved governance within institutional arrangements and examines the prospects for implementing such improvement. This Technical Paper is organized in three parts. Part 1 (Baseline) presents a broad overview of the types of local groundwater institutions and identifies a set of key drivers for such local organization around groundwater. Part 2 (Diagnostic) provides a review of the most relevant constraints to and opportunities for improving governance at local scales and addresses a few specific issues. Lastly, Part 3 (Prospects) attempts to identify where positive responses are likely to be deployed with most effect.

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### ■ Urban-rural tensions and opportunities for co-management

Food and Agriculture Organization of the United Nations (FAO), Global Environmental Facility (GEF), International

Association of Hydrogeologists (IAH), UNESCO-International Hydrological Programme (IHP), World Bank. 2012

<http://bit.ly/14dUVbt>

This thematic paper examines urban-rural tensions and opportunities for co-management. It provides a macro view of how urban-rural tensions develop in various domains and how the development of appropriate structures of governance can reduce conflicts and eliminate, or at least ameliorate, the problem.

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### ■ Flood Emergency Planning

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). February 2011

<http://bit.ly/1wLtOCA>

This tool provides basic information on preparation and implementation of flood emergency management, which breaks down into three stages: preparedness, response and recovery. By reducing exposure to flooding at each stage, flood emergency management contributes to flood risk reduction, which is an important objective of Integrated Flood Management. To this end, flood hazard maps help users understand hazard information through the process of planning, preparing and responding to flood. Practice emergency exercises also strengthen stakeholders' capacity to smoothly conduct emergency operation.

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### ■ Formulating a Basin Flood Management Plan

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). March 2007

<http://bit.ly/1p0wNfC>

This tool guides the contents and basic procedure of basin flood management

planning, such as national development vision/policy and enabling mechanism of planning. The objectives of basin flood management plans are to protect life and property from flood risks and enhance the capability of socio-economic development in the flood plains to realize the development vision in a basin through Integrated Flood Management (IFM).

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### ■ **The Role of Land-Use Planning in Flood Management**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). March 2007

<http://bit.ly/1zfeQ99>

This tool identifies the processes and policy principles that necessitate a linkage of land use planning in integrated flood management. It provides an overview of land use planning instruments considered applicable in the flood management context, to identify the challenges and opportunities to establish a closer linkage between the various sectors concerned, and to provide guidance as to how those sectors can work together.

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### ■ **Legal and Institutional Aspects of Integrated Flood Management Case Studies**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). July 2006

<http://bit.ly/1E0Wzw7>

The case studies in this document include: 'Legal and Regulatory Framework for Flood Management in India,' followed by 'Legislative Arrangements of Flood Management in Japan. Then, 'Protection against the Detrimental Effects of Waters: the Legal System of Serbia' is provided. The concluding case study is 'From Flood

Defence to Flood Management: Legal and Institutional Aspects of Swiss Flood Management.'

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### ■ **Legal and Institutional Aspects of Integrated Flood Management**

World Meteorological Organization (WMO)/Global Water Partnership (GWP) Associated Programme on Flood Management (APFM). January 2006

<http://bit.ly/1tgZn52>

This document is comprised of three parts. Part A is entitled 'Legal and Institutional Requirements of Integrated Flood Management at the National Level.' Part B is 'Special Requirements for International Watercourses.' Further, Part C is 'Analysis of Existing National Legal Regime for Flood Management.'

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## By region

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### ■ **Water and Sustainability. A Review of Targets, Tools and Regional Cases**

United Nations World Water Assessment Programme (WWAP). August 2012

<http://bit.ly/1sDYiyV>

This report reviews selected current sustainability targets for the water sector and provides an overview of selected tools and approaches to assist decision-makers in improving performance and achieving results and ultimately, meeting development targets. The report reviews three widely known systems of water sustainability targets: (1) the water targets set under the umbrella of the Millennium Development Goals; (2) the comprehensive water targets established as part of the European Union Water Framework Directive; and (3) the target-setting process for the 6th World Water Forum. The report presents five cases to highlight some of the practices followed to set water sustainability targets.

These cases include four river basins of different size, (Danube, Mekong, Zambezi and Nile), and a large aquifer, (Guarani).

## Africa

### ■ **Assessing Progress in Africa toward the Millennium Development Goals. MDG Report 2013. Food security in Africa: Issues, challenges and lessons**

African Development Bank (AfDB), African Union Commission (AUC), United Nations Development Programme (UNDP), United Nations Economic Commission for Africa (UNECA). May 2013

<http://bit.ly/1tLyA1R>

This 2013 Millennium Development Goals (MDG) report reveals a mixed pattern successes and failures, improvements and challenges, innovations and obstacles towards Africa's progress. The report summarizes Africa's MDG performance and identifies the best performing countries by indicator. Information about Target 7C: Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation, as well as on factors hindering progress in access to safe drinking water and sanitation is provided. Section III focuses on the issue of food security in Africa, presents the situation and success stories and emerging lessons at country level, including issues related to water supply and irrigation.

### ■ **Africa Environment Outlook-3. Our Environment, Our Health. Summary for policy makers**

United Nations Environment Programme (UNEP). February 2013

<http://bit.ly/YIKVWO>

The Africa Environment Outlook (AEO) is a tool of the African Ministerial Conference on the Environment (AMCEN) for monitoring environmental management in

Africa. This issue (AEO-3) focuses on the linkages between environment and health. The AEO-3 report begins by highlighting the major drivers of environmental change in Africa and their implications for human health. It also assesses environment and health linkages in the region by focusing on seven priority themes: air quality; biodiversity; chemicals and waste; climate change and variability; coastal and marine resources; freshwater and sanitation; and land. In addition, the report contains a scenario analysis and teases out a series of policy directions. Based on the findings of the thematic assessments and scenario analysis, the report concludes by setting forth transformative policy directions to ensure a sustainable future.

### ■ **Water sector governance in Africa. Volume 1 'Theory and Practice'**

African Development Bank (AfDB). November 2010

<http://bit.ly/1u6RvVR>

This report provides an overview and assessment of the state of water sector governance in Africa - looking at a very broad range of governance-related elements, including legislation and regulation, decentralization and devolution, sector-wide approaches, financial management, monitoring and evaluation, accountability and corruption as well as civil society participation, gender, alternative service provision, public-private partnerships and equitable service delivery. The study highlights current thinking and research on all these key elements and issues affecting their quality. It draws attention to the importance of financing overarching water management and governance functions, from strategy, planning and policymaking and engagement with sector stakeholders to water resource development, allocation and management.

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## ■ Africa Water Atlas

United Nations Environment Programme (UNEP). November 2010

<http://bit.ly/1E0X2hl>

This Atlas is a visual account of Africa's endowment and use of water resources. It gathers information about water in Africa and its role in the economy and development, health, food security, transboundary cooperation, capacity building and environmental change. The Atlas starts with a special feature that focuses on the often two-sided nature of water issues in Africa: surplus and scarcity, under-developed and overexploited and challenges and opportunities. Chapter one provides the geographical foundations of water quantity, quality and distribution across Africa's diverse regions. Chapter two focuses on water at the scale of major watersheds and groundwater basins that cross national boundaries. Chapter three examines nine challenges and opportunities facing Africa as it strives to improve the quantity, quality and use of its water resources. Each of the nine issues is presented by discussing the challenge, the situation, the constraints and the opportunities. The final chapter is a country-by-country look at water availability and withdrawals, irrigation and water use by sector. The country profiles also summarize progress toward the MDG water targets.

### Arab countries

## ■ Water Governance in the Arab Region. Managing Scarcity and Securing the Future

United Nations Development Programme (UNDP). November 2013

<http://bit.ly/1eGG1dC>

This report addresses the issue of water governance in the Arab Region in a context of water scarcity. Chapter 1

reviews the state of water resources in the Arab region, the threats to these resources and the impact of diminishing water sustainability. Chapter 2 addresses major water governance challenges in the Arab region. It emphasizes policy choices and relevant interests. Chapter 3 discusses three main issues: water security, the ultimate goal in efforts to achieve sustainable development; effective water governance, the way forward in achieving water security; and cost-effectiveness, an appropriate tool for guiding effective water governance. Chapter 4 explains how water's real value should guide water governance and management to the most economically, socially and environmentally efficient options. Chapter 5 provides an in-depth description of the major building blocks of effective water governance, such as reorienting water policy, enforcing legislations and regulations, financing the water sector, developing organizational capacities, monitoring and evaluating, managing data and information, coordinating regional and international cooperation, educating and raising awareness, promoting stakeholder participation and empowerment, ensuring water rights and social equity, increasing water use efficiency and improving links between research and management. Finally, Chapter 6 outlines the way forward.

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## ■ ESCWA Water Development Report 5: Issues in Sustainable Water Resources Management and Water Services

United Nations Economic and Social Commission for Western Asia (UNESCWA). December 2013

<http://bit.ly/1j37HkH>

This report aims to highlight the current regional developments in the area of water supply and sanitation with a focus on the new inter-governmental mechanism for

monitoring water supply and sanitation services in the Arab region. The publication also seeks to review the processes and progress related to regional follow-up on the Millennium Development Goals (MDGs) and regional preparations for the post-2015 development agenda within the water sector and address global and regional perspectives on securing access to drinking water and sanitation as a fundamental human right.

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■ **The Arab Millennium Development Goals Report. Facing challenges and looking beyond 2015**

League of Arab States, United Nations (UN). August 2013

<http://bit.ly/1wFvUma>

The 4th Arab Report on the Millennium Development Goals (MDGs) highlights the progress made by Arab countries in achieving the MDGs since 1990 and underlines ongoing development challenges which should be addressed in any post-2015 development framework. The report points out lack of access to water, water scarcity and lack of improved sanitation in rural areas as three limiting factors in the region.

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Asia and the Pacific

■ **Thinking about Water Differently: Managing the Water–Food–Energy Nexus**

Asian Development Bank (ADB). September 2013

<http://bit.ly/19AjSzQ>

This publication is the result of a scoping study initiated by the Asian Development Bank to better understand the issues associated with the water-food-energy nexus in Asia and the Pacific. It provides high-level guidance on the choices available to address the region's water security issues.

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■ **Asian Water Development Outlook 2013. Measuring Water Security in Asia and the Pacific**

Asian Development Bank (ADB). March 2013

<http://bit.ly/161ZvYq>

This 2nd edition of the Asian Water Development Outlook (AWDO) provides a quantitative and comprehensive view of water security in the countries of Asia and the Pacific. By focusing on critical water issues, the report provides finance and planning leaders with recommendations on policy actions to improve water governance and guidance on investments to increase their country's water security. AWDO 2013 is presented in three parts. Part I introduces the five key dimensions of water security and presents the combination of indicators for assessment of national water security. The assessments for individual countries are aggregated to provide regional snapshots, with overviews of what the findings mean, identifying regional issues and hot spots where urgent action is required to improve water security. Part II applies the indicators to demonstrate how countries in Asia and the Pacific measure up against the AWDO vision of water security, discusses what is at stake and introduces policy levers that may be used to increase security in each key dimension. Part III presents a summary of policy and strategic actions to increase water security, synthesized as key messages to assist political, water sector and civil society leaders guide actions on water security nationally, in river basins and in communities.

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■ **Green growth, resources and resilience. Environmental sustainability in Asia and the Pacific**

Asian Development Bank (ADB), United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP),

United Nations Environment Programme (UNEP). February 2012

<http://bit.ly/18KB1X0>

This report provides new insights into Asian and Pacific resource use trends and outlines key actions, including reforming economic incentives and promoting more inclusive and adaptive governance approaches, which governments can pursue to help bring economic growth strategies in closer alignment with the objective of sustainable development. It also provides examples of strategies for improving resilience to help deal with the increasing levels of risk faced by societies and economies.

#### Europe and North America

#### ■ **Integrated Water Resources Management in Eastern Europe, the Caucasus and Central Asia. European Union Water Initiative National Policy Dialogues progress report 2013**

United Nations Economic Commission for Europe (UNECE), Organisation for Economic Co-operation and Development (OECD). May 2014

<http://bit.ly/1vfpFRS>

The purpose of this report is to provide an overview of the implementation of Integrated Water Resources Management (IWRM) principles and water sector reforms in Eastern Europe, the Caucasus and Central Asia, with a focus on the development of institutional and legal frameworks.

#### ■ **The European Union Water Initiative National Policy Dialogues. Achievements and lessons learned**

United Nations Economic Commission for Europe (UNECE). 2013

<http://bit.ly/1yHvuv0>

The European Union Water Initiative takes a partnership approach with national Governments, donors, the water industry,

nongovernmental organizations and other stakeholders. Through National Policy Dialogues (NPDs) in the countries of Eastern Europe, the Caucasus and Central Asia, the Initiative aims to strengthen coordination and cooperation between sectors to improve water management and facilitate more effective development assistance in the water sector. The United Nations Economic Commission for Europe, through the secretariat of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, is the strategic partner of the European Union to support NPDs on Integrated Water Resources Management. This publication describes the activities and achievements of the NPDs, as well as plans for their future development. It aims to inspire further progress in developing effective partnerships and enhancing multi-stakeholder cooperation for the improvement of water policies.

#### Latin America and the Caribbean

#### ■ **Sustainable development: 20 years from the Earth Summit. Progress, gaps and strategic guidelines for Latin America and the Caribbean**

Economic Commission for Latin America and the Caribbean (UNECLAC). February 2012

<http://bit.ly/1DvbtbU>

This publication describes the progress made and the gaps that remain in implementing global commitments on sustainable development since 1992. Based on the deficiencies that persist and the challenges that continue to arise, it proposes guidelines for moving towards sustainable development. The water issue is addressed throughout the report, especially in Chapter II where the issue of water resource management is considered, and in Chapter IV which addresses the issue of freshwater resources and water management in the context of sustainable development.

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■ **Importance of biodiversity and ecosystems in economic growth and equity in Latin America and the Caribbean: an economic valuation of ecosystems. Latin America and the Caribbean: A Biodiversity Superpower**

United Nations Development Programme (UNDP). December 2010

<http://bit.ly/1thB3yv>

This report aims at generating a dialogue within the Latin America and the Caribbean (LAC) region on the need and competitive advantages of incorporating the conservation and sustainable management of biodiversity and the ecosystem services into development plans, emphasising the role both play in the development and equity. The Report's approach is to analyze sectoral outputs at a micro-economic level, comparing costs and benefits between different types of natural resource production practices, those that take account of ecosystem services and those that do not. The Report has undertaken this analysis for several sectors such as agriculture, fisheries, forestry, tourism as well as the cross-cutting protected areas and water services. Chapter 11, "Sustainable management and water: the benefits of hydrological services," synthesizes available information conceptual and empirical on the relations between land management, hydrological services and human welfare, with emphasis in LAC countries.

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■ **Revisiting privatization, foreign investment, international arbitration, and water**

United Nations Economic Commission for Latin America and the Caribbean (UNECLAC). November 2007

<http://bit.ly/1wFw5hj>

A subject relevant to the governance of water resources and public services is the effect that international trade and investment agreements may have on national capacities to manage natural resources and to regulate public services.

As a consequence of globalization, many public services are provided and water rights held by companies within foreign investment protection systems or special conflict resolution regimes, which means that external jurisdictions can intervene in local matters. These agreements, which override national laws, restrict the power of governments to act in the public interest and in that of local communities. The Latin America and Caribbean region has yet to assess the consequences that international investment agreements may have on the economic, social and environmental sustainability and efficiency of natural resources utilization and provision of public services. This paper serves as a first step in this direction.

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■ **Water governance for development and sustainability**

United Nations Economic Commission for Latin America and the Caribbean (UNECLAC). June 2006

<http://bit.ly/1yHvzi4>

This document aims to identify characteristics of water institutions which promote the sustainable integration of water, both as a resource and as a service, into socioeconomic development. The four specific objectives of this paper are: (1) to contribute to focusing the regional debate on those aspects of water institutions and macroeconomic policies that are particularly critical for Latin American and Caribbean countries; (2) to promote the formulation of a regional position that genuinely reflects its situation, visions, aspirations and problems; (3) to promote a critical and balanced analysis of legislation, regulatory frameworks and public policies for water resources management and provision of related public services; and (4) to make available a summary of the water-related research carried out by the Division of Natural Resources and Infrastructure of the Economic Commission for Latin America and the Caribbean (ECLAC).

International Decade for Action 'Water for Life' 2005-2015

## A Decade for Water, a Decade for Life

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Towards the primary goal of the Water for Life Decade, Spain has agreed to provide resources to the United Nations to establish an Office to support the International Decade for Action. Located in Zaragoza, Spain, and led by the United Nations Department of Economic and Social Affairs (UNDESA), the Office implements the UN-Water Decade Programme on Advocacy and Communication (UNW-DPAC) aiming at sustaining the global attention and political momentum in favour of the water and sanitation agenda at all levels during the Decade.

The views expressed in this publication do not necessarily reflect the views of the United Nations Secretariat or the United Nations Office to Support the International Decade for Action (UNO-IDfA) 'Water for Life' 2005-2015.

The designations employed in this publication and the presentation of the material do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations or the UNO-IDfA 'Water for Life' 2005-2015 concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

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