

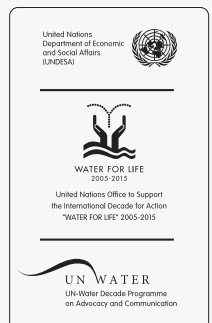
Integrated Water Resources Management Reader

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 Integrated Water Management (IWRM) issues. The reader provides basic references for easy reading and some of the latest and most relevant United Nations publications on IWRM issues. Link is provided when the publication is available online.

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

www.un.org/waterforlifedecade



An overview

■ **Integrated Water Resources Management in Action**

World Water Assessment Programme (WWAP), DHI Water Policy, UNEP-DHI Centre for Water and Environment. 2009

unesdoc.unesco.org/images/0018/001818/181891E.pdf

This paper sets out to explore some of the practical aspects of the implementation of Integrated Water Resources Management (IWRM). It covers the following aspects: 1) the relevance of IWRM for a number of key development issues, 2) the key characteristics of the concept, 3) the global status of IWRM, 4) practical implementation – the challenges, 5) practical implementation – case studies showing successful applications to problematic management scenarios, and 6) how IWRM programmes are being linked with the Millennium Development Goals and adaptation to climate change by the setting of achievement milestones.

■ **IWRM Implementation in Basins, Sub-basins and Aquifers: State of the Art Review**

World Water Assessment Programme (WWAP), United Nations Educational, Scientific and Cultural Organization (UNESCO), International Hydrological Programme (IHP). 2009

unesdoc.unesco.org/images/0018/001817/181790e.pdf

This publication reviews currently available information on cases related to IWRM and Integrated River Basin Management (IRBM) and summarizes these findings with some conclusions and recommendations.

■ **Status Report on Integrated Water Resources Management and Water Efficiency Plans**

UN-Water. 2008

www.unwater.org/downloads/UNW_Status_Report_IWRM.pdf

This Report aims to illustrate progress made on meeting the target to “Develop integrated water resources management and water efficiency plans by 2005, with support to developing countries, through actions at all levels” agreed at the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002, through the Johannesburg Plan of Implementation. The Report is based on a survey covering 104 countries of which 77 are developing or countries in transition and 27 are developed.

■ **Conflict Resolution and Negotiation Skills for Integrated Water Resources Management. Training Manual**

Cap-Net, United Nations Development Programme (UNDP). 2008

www.cap-net.org/sites/cap-net.org/files/Conflict%20Manual%20Final%20170908.pdf

Within the framework of IWRM, the intention of this manual is to provide the necessary general information and specific tools in a user-friendly way so that any water resource stakeholder may be able to resolve existing or head-off impending disputes in a way agreeable to all parties. The emphasis in this manual is on Alternative Dispute Resolution (ADR), in particular, principled negotiation – an approach that seeks to embed outcomes and processes that will serve sustainable, equitable and efficient long-term social needs.

■ **Roadmapping for Advancing Integrated Water Resources Management (IWRM) Processes**

UN-Water, Global Water Partnership (GWP). 2007

www.unwater.org/downloads/UNW_ROAD_MAPPING_IWRM.pdf

This statement has been prepared to support countries in their efforts to improve water management through an IWRM approach, and to stimulate the development of a robust framework for monitoring, evaluating and reporting on the outcomes of such an approach.

■ **Integrated Water Resources Management Plans. Training Manual and Operational Guide**

Cap-Net, United Nations Development Programme (UNDP), Global Water Partnership (GWP). 2005

www.cap-net.org/sites/cap-net.org/files/Manual_english.pdf

This training material focus on how to achieve a water resources management plan that brings in the principles of IWRM. It provides an insight into the other tools and techniques that will be required. Useful tools are identified to support the planning process in each step. While the material is targeted for national IWRM plans it is readily adaptable for basin level planning and trainers are encouraged to be creative in adapting the material to suit local circumstances.

■ **IWRM for sustainable use of water. 50 years of international experience with the concept of integrated water management**

Food and Agriculture Organization (FAO). 2004

www.fao.org/ag/wfe2005/docs/IWRM_Background.pdf

This background document provides a brief overview of the development of the concept of Integrated Water Resources Management.

IWRM at the river basin level

■ **Introduction to the IWRM guidelines at river basin level**

World Water Assessment Programme (WWAP), United Nations Educational, Scientific and Cultural Organization (UNESCO), International Hydrological Programme (IHP). 2009

unesdoc.unesco.org/images/0018/001850/185074e.pdf

These Guidelines provide information to help practitioners implement IWRM in line with their own set of circumstances. They consist of the fundamental concepts of IWRM as well as provide insights into the perspectives of various stakeholders with regard to water issues, keys for success for overcoming problems, and good examples where such keys for success were applied. This first publication serves as an introduction to the Guidelines and outlines the main points contained within them.

■ **IWRM Guidelines at River Basin Level. Part 1: Principles**

United Nations Educational, Scientific and Cultural Organization (UNESCO), International Hydrological Programme (IHP), World Water Assessment Programme (WWAP), Network of Asian River Basin Organizations (NARBO). 2009

unesdoc.unesco.org/images/0018/001864/186417e.pdf

Part 1 of the Guidelines provides basic principles of IWRM and explains the benefits of IWRM at river basin level and the need to promote it at the policy level. It also proposes a spiral model of IWRM, which illustrates the evolving and dynamic nature of the IWRM process.

■ **IWRM Guidelines at River Basin Level. Part 2-1: The Guidelines for IWRM Coordination**

UNESCO, IHP, WWAP, NARBO. 2009

unesdoc.unesco.org/images/0018/001864/186418e.pdf

‘The Guidelines for IWRM Coordination’ is intended for practitioners involved in IWRM coordination. It can be used as introductory guidance for those tackling IWRM for the first time, or as training material for intermediary practitioners and trainers of IWRM. For IWRM experts, it can be used as a reference guide to tackle the various issues and problems they face in their IWRM activities.

■ **IWRM Guidelines at River Basin Level. Part 2-2: The Guidelines for Flood Management**

UNESCO, IHP, WWAP, NARBO. 2009

unesdoc.unesco.org/images/0018/001864/186420e.pdf

‘The Guidelines for Flood Management’ is intended for IWRM practitioners of flood management. It is intended to be used as introductory guidance for those tackling IWRM for the first time, or as training material for intermediary practitioners and trainers of IWRM. For IWRM experts, it can be used as a reference guide to tackle the various issues and problems they face in their IWRM activities.

■ **IWRM Guidelines at River Basin Level. Part 2-3: Invitation to IWRM for Irrigation Practitioners**

UNESCO, IHP, WWAP, NARBO. 2009

unesdoc.unesco.org/images/0018/001864/186419e.pdf

The ‘Invitation to IWRM for Irrigation Practitioners’ is intended for IWRM practitioners tackling irrigation planning. The Invitation consists of three parts: 1) sectoral perspectives, 2) key for success, and 3) IWRM process.

■ **Integrated Water Resources Management for River Basin Organisations. Training Manual**

Cap-Net, United Nations Development Programme (UNDP). 2008

www.cap-net.org/sites/cap-net.org/files/RBO%20Manual.pdf

The purpose of this training material is to improve efficiency and effectiveness in the application of integrated water resources management (IWRM) for sustainable management and development of water resources. The training is particularly targeted at the staff of river basin organisations (RBOs).

■ **Integrated Water Resources Management on a Basin Level. A Training Manual**

United Nations Educational, Scientific and Cultural Organization (UNESCO). 2003

unesdoc.unesco.org/images/0013/001319/131933e.pdf

This manual is an introduction to the principles underlying the integrated water resources management concept: the focus is on the approaches and management tools that facilitate its application, taking into account the size of the territory, whether it is national and international basins or sub-basins of local interest. This manual is destined first to trainers who, through a national or a regional seminar, would bring the participants to produce a diagnosis of their basin and an action plan. The manual is divided into two sections. The first one, of a more conceptual nature, presents a review of several definitions and some of the most pressing issues related to integrated basin-wide management. The second section of the manual, aimed at training, takes the reader and the trainer through the steps of the management framework.

A focus on...

Climate change

■ **IWRM as a Tool for Adaptation to Climate Change. Training Manual and Facilitator's Guide**

Cap-Net, United Nations Development Programme (UNDP). 2009

www.cap-net.org/sites/cap-net.org/files/CC&%20IWRM%20_English%20manual_.pdf

This training manual and facilitator's guide is intended to introduce general concepts and the practical application of IWRM as an instrument for adaptation to climate change. The target audience for the manual is twofold: participants in courses on the subject will be provided with conceptual and practical knowledge, and capacity builders will find assistance to conduct short training courses on IWRM and adaptation to climate change.

Gender mainstreaming

■ **Mainstreaming Gender in Water Management. Resource Guide**

United Nations Development Programme (UNDP), Gender and Water Alliance (GWA). 2006

www.genderandwater.org/redir/content/download/4545/37857/file/Gender_%20and_IWRM_Resource_Guide_complete_200610.pdf

This Guide is a reference document to assist water and gender practitioners and professionals as well as persons responsible for gender mainstreaming. It is a compilation of newer resources – documents, papers, books, case studies, tools and toolkits - on gender mainstreaming in Integrated Water Resource Management (IWRM). It is meant to support action and further reading and research.

Groundwater management

■ **Groundwater Management in IWRM. Training Manual**

Cap-Net, United Nations Development Programme (UNDP). 2010

[www.cap-net.org/sites/cap-net.org/files/Cap-Net%20Groundwater%20\(web%20res\).pdf](http://www.cap-net.org/sites/cap-net.org/files/Cap-Net%20Groundwater%20(web%20res).pdf)

This training material addresses groundwater in the IWRM perspective. The goal of the course is to introduce the broader framework of groundwater management to groundwater experts and the specific challenges of groundwater management to other water professionals.

Ecosystems

■ **Recommendations on Payments for Ecosystem Services in Integrated Water Resources Management**

United Nations Economic Commission for Europe (UNECE). 2003

English:

www.unece.org/env/water/publications/documents/PES_Recommendations_web.pdf

Russian:

www.unece.org/env/water/publications/documents/ece-mp-wat-22-Rus-final.pdf

The Recommendations, developed and adopted by the Parties of the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes, indicate the measures to apply to integrate into sustainable development policies the value of services supplied by water-related ecosystems – such as forests and wetlands – as well as to provide compensation for such services. The Recommendations consist of a set of strategic, rather than technical, recommendations for the various steps involved in the establishment and operation of various schemes for payments for ecosystem services and a set of other annexes, which are of a technical nature.

Cases from the regions

Africa

■ **Roadmaps for water management in West Africa. Case studies from The Gambia, Guinea-Bissau and Sierra Leone. Development of IWRM Plans**

ACP-EU, United Nations Environment Programme (UNEP), UNEP-DHI Centre for Water and Environment (UDC), Global Water Partnership (GWP).

www.unepdhi.org/documents/UNEP-DHI_casebook_web.pdf

These case studies are intended to recognize some of the most common problems experienced in IWRM planning and developing options for overcoming them. Each case study considers the following aspects: 1) problems of water resources management that need to be addressed, 2) context in which the problems and solutions need to take place, 3) decisions and actions taken in order to execute the roadmap process, 4) outcomes of the decisions and actions taken, 5) lessons learnt that will be of value to others involved in similar situation, and 6) relevance of the case to IWRM.

Asia

■ **National Workshop on Participatory Irrigation Management and Integrated Water Resource Management**

Asian Development Bank (ADB). 2007

www.adb.org/Documents/Reports/PIM-IWRM/Session-IV.pdf

This report summarizes the themes, issues, and learning that emerged during the 'National Workshop on Participatory Irrigation Management and Integrated Water Resources Management' that was held in Bhubaneshwar, Orissa, India, on 8 and 9 of May 2007. It draws on the invited presentations by resource persons from

around the country and the discussions that ensued. Session 4 focused on Integrated Water Resources Management aspects.

■ **Guidelines with regard to developing legislative and institutional frameworks needed to implement IWRM at the national level in the ESCWA region**

United Nations Economic and Social Commission for Western Asia (UNESCWA). 2007

Arabic:

www.escwa.un.org/information/publication/s/edit/upload/sdpcd-07-1-a.pdf

This study provides ESCWA member countries with guidelines on how to implement Integrated Water Resources Management national strategies, with particular focus on institutional and legal dimensions. The study: (a) assesses the status of institutional and legislative settings; (b) evaluates the progress towards implementing institutional reforms within IWRM national strategies as well as challenges, constraints and gaps; (c) proposes scenarios for the implementation of legal and institutional reforms; (d) reviews institutional and legislative measures taken by developed and developing countries; and (e) presents a set of recommendations to ESCWA member countries on how to enhance institutional and legal reforms in order to implement IWRM at the national/local levels.

■ **Enhancing the application of Integrated Water Resources Management in the ESCWA region**

United Nations Economic and Social Commission for Western Asia (UNESCWA). 2004

css.escwa.org.lb/sdpcd/1131/ESCWARegionalTrainingManual-Summary.pdf

This overview report introduces the process of Integrated Water Resources Management (IWRM) to senior policy and decision makers

with the aim of mobilizing political and decision support to implement IWRM at the basin, national and regional levels.

Latin America and the Caribbean

■ **Water governance for development and sustainability**

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

www.eclac.org/publicaciones/xml/0/26200/lcl2556e.pdf

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 specific objectives of this paper are: (i) to contribute to focusing the regional debate on those aspects of water institutions and macroeconomic policies which are particularly critical for Latin American and Caribbean countries; (ii) to promote the formulation of a regional position that genuinely reflects its situation, visions, aspirations and problems; and (iii) to promote a critical and balanced analysis of legislation, regulatory frameworks and public policies for water resources management and provision of related public services.

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

A Decade for Water, a Decade for Life

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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