

PREPARING FOR THE NEXT GENERATION OF
WATERSHED MANAGEMENT
PROGRAMMES AND PROJECTS

ASIA

Proceedings of the Asian Regional Workshop

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Edited by
Moujahed Achouri
Larry Tennyson
Kumar Upadhyay and
Roger White



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00100 Rome
Italy

or by e-mail to:
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PREFACE

On the occasion of the International Year of Mountains, and in response to the clear consensus reached by the international community regarding the need to ensure harmonious and sustainable development of mountainous areas and watersheds, the Food and Agriculture Organization of the United Nations (FAO) and its partners in the subject, undertook a large-scale assessment and global review of the current status and future trends of regarding knowledge about and techniques for integrated watershed management.

The objectives were to promote the exchange and dissemination of experiences of integrated watershed management techniques, identify constraints to the implementation and development of those techniques during the decade from 1990 to 2000 and capture relevant new paradigms and approaches. The lessons learned from diverse experiences are being used to define a new generation of integrated watershed management projects.

Experts from four continents contributed to the assessment, which yielded four main outputs: 1) a review of experiences in watershed management, based on questionnaires that were sent to active partners in the field; 2) substantive reports from four regional workshops held in Nairobi (Kenya), Kathmandu (Nepal), Arequipa (Peru) and Megève (France); 3) four case studies from the Mediterranean basin, Nepal, Bolivia and Burundi; and 4) an international conference in Porto Cervo, Sassari Province, Sardinia, Italy.

Watershed management concepts and approaches were reviewed, and different experiences assessed. The results of this exercise are presented in several documents, including the proceedings of workshops and reports on the four case studies.

The conservation, use and sustainable management of watershed resources in order to meet the demands of growing populations have been a high priority for many countries over the past several decades. In this respect, integrated watershed management through people's participation has become widely accepted as the approach that ensures sound sustainable natural resources management and a better economy for upland inhabitants, as well as people living in downstream areas.

Within Asia there has been a noticeable divergence in approach to watershed management. The watershed development projects in India, which have a strong rural development component and make use of the "ridge-to-valley" treatment, are in marked contrast to the hydrological and land cover approaches adopted in other parts of Asia. The more recent interest in the ecosystem

services that catchments provide has helped clarify the objectives of watershed management, particularly in the water towers of the Himalayas. While great advances have been made in the last 20 years, there is still great opportunity to develop further understanding of these upstream–downstream interactions and linkages. Equally important is the need to develop and sustain synergy and partnership among different communities of practice involved in watershed management, within Asia and beyond.

This volume contains the proceedings of the workshop held in Kathmandu in September 2003.



El Hadji Sène
Director Forest Resources Division
FAO, Rome



J. Gabriel Campbell
Director-General
International Centre
for Integrated Mountain
Development (ICIMOD),
Kathmandu

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All those presenters who were able to provide outlines of their papers within one month of this workshop are very much appreciated. This made it possible for a draft CD-ROM to be made available at the Sassari Workshop held in October 2003.

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ACRONYMS

AsDB	Asian Development Bank
CBS	Central Bureau of Statistics of the Government of Nepal
CDCC	community Development Conservation Committee
CDG	Community Development Group
CVP	Chakriya Vikas Pranali (India)
DANIDA	Danish International Development Agency
DDC	District Development Committee
DFID	Department for International Development (UK)
DLR	Department of Land Resources (India)
DSCWM	Department of Soil Conservation and Watershed Management
FAO	Food and Agriculture Organization of the United Nations
FY	Financial Year
GDP	Gross Domestic Product
GIS	Geographic Information System
GTZ	German Agency for Technical Cooperation
HRD	Human Resource Development
HRU	Hydrologic Response Units
ICIMOD	International Centre for Integrated Mountain Development
IFAD	International Fund for Agricultural Development
IUCN	World Conservation Union (formerly International Union for Conservation of Nature and Natural Resources)
IWDP	Integrated Watershed Development Project (Haryana, India)
IWM	Integrated Watershed Management
IWMI	International Water Management Institute
JICA	Japanese International Cooperation Agency
LSFP	Lao Swedish Forestry Program
M&E	Monitoring and Evaluation
MoA	Ministry of Agriculture
MoEF	Ministry of Environment and Forests
MoF	Ministry of Forests/Forestry
MoRD	Ministry of Rural Development
MoWR	Ministry of Water Resources
MW	Megawatt
NARMSAP	Natural Resource Management Sector Assistance Programme (Nepal)
NDWMP	Nepal-Denmark Watershed Management Project
NGO	Non-governmental Organization
NPC	National Planning Commission
NR	Nepalese Rupee (US\$1 = NR 78, July 2004)
NTFP	Non-timber Forest Product
NWDPRA	National Watershed Development Project for Rainfed Areas (India)
ODA	Overseas Development Administration (UK)
PARDYP	People and Resource Dynamics in Mountain Watersheds of the Hindu Kush Himalayas Project

PDR	People's Democratic Republic
PRI	Panchayati Raj Institution
RCUP	Resource Conservation and Utilisation Project
REDLACH	Latin American Network for Technical Cooperation in Watershed Management
RELMA	Regional Land Management Unit (East Africa)
SALT	Sloping Agricultural Land Technology
SCWMC	Soil Conservation and Watershed Management Component (NARMSAP)
SDC	Swiss Agency for Development and Cooperation
SEED	Service, Economy, Environment and Democratic (norms)
Sida	Swedish International Development Cooperation Agency
SWAT	Soil and Water Assessment Tool
SWC	Soil and Water Conservation
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
UWMP	Upper Watershed Management Project (Sri Lanka)
VDC	Village Development Committee
WOCAT	World Overview of Conservation Approaches and Technologies
WM	Watershed Management