



# Informing Water Policies in South Asia

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This volume is part of the four-volume box set Water Resource Management in South Asia.

## List of Abbreviations

ABECA	All Bengal Electricity Consumers Association
ADB	Asian Development Bank
AWB	Area Water Board
BDO	Block Development Officer
BoM	Board of Management
CAT	Convention Against Torture
CBO	Community-Based Organization
CEDAW	Convention on Elimination of All Forms of Discrimination Against Women
CEI	Composite Empowerment Index
CERD	Convention on Elimination of All Forms of Racial Discrimination
CGWB	Central Ground Water Board
CIDA	Canadian International Development Agency
CMSU	Community Management Support Unit
CPR	Common Property Resource
CRC	Convention on the Rights of the Child
CSO	Civil Society Organization
CST	Cluster Storage Tank
DPC	District Planning Committee
DR & WCS	Drainage & Water Conservation
DSL	dead storage level
DSC	Development Support Centre
EI	Empowerment Index
ERR	Earthquake Reconstruction and Rehabilitation
FCD	Flood Control and Drainage
FGD	focus group discussion
FO	farmers' organizations
FRL	full reservoir level
GEM	Gender Empowerment Measure
GGA	Groundwater Governance in Asia
GIDR	Gujarat Institute of Development Research
GLOFs	glacier lake outburst floods
GMS	Greater Mekong Sub-basin

GoI	Government of India
GoM	Government of Maharashtra
GoN	Government of Nepal
GoWB	Government of West Bengal
GR	government resolution
GRWSSP	Ghogha Rural Water Supply and Sanitation Project
GWA	Gender and Water Alliance
GWF	Global Water Forum
GWP	Global Water Partnership
GWSSB	Gujarat Water Supply and Sewerage Board
HUDA	Haryana Urban Development Authority
HYV	high-yielding variety
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
IDRC	International Development Research Centre
IGA	income-generating activities
IIMI	International Irrigation Management Institute
ILO	International Labour Organization
IMTP	Irrigation Management Transfer Project
I-NRM	Integrated Management of Natural Resources
IPD	Irrigation and Power Department
ISA	Implementation Support Agency
IWE	Irrigation and Water Engineering
IWMI	International Water Management Institute
IWRM	Integrated Water Resources Management
IWT	Indus Water Treaty
KMVS	Kutch Mahila Vikas Sangathan
LCs	local committees
LGED	Local Government Engineering Department
MDG	Millennium Development Goal
MGD	Million Gallons per day
MMISF	Maharashtra Management of Irrigation Systems by Farmers
MoU	Memorandum of Understanding
MPA	Megh Pyne Abhiyan

MPCs	Municipal Planning Committees
MSPs	Multi Stakeholder Platforms
NAPA	National Adaptation Plan of Action
NGO	Non-Governmental Organization
NPA	National Plan of Action
NPDEW	National Policy for Development and Empowerment of Women
NSA	Network for Social Accountability
NWSDB	National Water Supply and Drainage Board
O&M	Operations and Maintenance
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Square
OWPO	Orissa Water Planning Organization
PGCIL	Power Grid Corporation of India Limited
PHED	Public Health and Engineering Department
PIM	Participatory Irrigation Management
PRI <sub>s</sub>	Panchayati Raj Institutions
PRSP	poverty reduction strategy paper
PUI	Peri-urban Interface
RA	Regulatory Authority
RBA	River Bed Aquifer
RWAs	Resident Welfare Associations
SAP	Structural Adjustment Program
SEB	state electricity board
SEWA	Self Employed Women's Association
SEZ	Special Economic Zone
SHGs	Self Help Groups
SIDA	Sindh Irrigation and Drainage Authority
SISP	Second Irrigation Sector Project
SOPPECOM	Society for Promoting Participative Ecosystem Management
SSWRDSP	Small Scale Water Resources Development Subprojects
SURGE	Society for Urban Regeneration
SWMO	Sindh Water Management Ordinance
TISS	Tata Institute of Social Sciences
TNAU	Tamil Nadu Agricultural University
TOD	Time of the Day

TRARC	Tropical Rapid Appraisal of Riparian Condition
UA	Urban Agglomeration
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UN-INSTRAW	United Nations International Research and Training Institute for the Advancement of Women
UNFPA	United Nations Fund for Population Activities
VWSC	Village Water and Sanitation Committees
WASMO	Water and Sanitation Management Organisation
WATSAN	water supply and sanitation
WB	World Bank
WBSEB	West Bengal State Electricity Board
WBSEDCL	West Bengal State Electricity Distribution Corporation Limited
WBSERC	West Bengal State Electricity Regulatory Commission
WCS	Water Conservation
WDP	Watershed Development Program
WED	Women Environment and Development
WEDO	Women's Environment & Development Organization
WEI	Women's Empowerment Index
WEM	Water Extraction Mechanism
WFG	Women Farmers' Group
WLD	Water Lifting Device
WMCA	Water Management Cooperative Association
WUA	Water Users' Association

## Foreword

South Asian region has the largest population density in the world and houses around 21 percent of the world's population. A majority of this population lives below poverty line and draws sustenance from water and environmental systems. Water resources in the South Asian region has been characterized by growing stress due to competing demands that have resulted in mounting conflicts over access to and distribution of water resources and have thrown up several challenges for better water management in the region. The crisis of water management in South Asia is not divorced from the issues of governance and policy-making. Water policies in the region have been criticized for not representing the challenges people face on the ground. This book brings together local case studies from Bangladesh, India, Pakistan and Nepal. These case studies, ranging from issues of surface and groundwater irrigation to rural, urban and peri-urban water management to water supply and sanitation have raised some important concerns about participatory water governance. These issues influence water policies in more than one way. First, they tell us that the problem of water management needs to be urgently solved not only for the sustainability of environmental services, but also for the political and economic stability of individual governments in South Asia. Second, they pose some still unanswered questions on the status of institutional mechanisms for protection, conservation and sustainable use of basic environmental resources such as water. Third, all the case studies call for integration for the purpose of better water management in the region.

This book is part of the project called "Crossing Boundaries: Regional Capacity Building on Integrated Water Resources Management (IWRM) and Gender & Water in South Asia." The project aims to contribute to a paradigm shift in water resources management in South Asia, by means of a partnership-based program for the capacity-building of water professionals on IWRM and Gender & Water. The project is being implemented by six partner institutions in Bangladesh, India, Nepal and Sri Lanka, and



is coordinated by the South Asia Consortium for Interdisciplinary Water Resources Studies (SaciWATERS), in partnership with the Irrigation and Water Engineering (IWE) Group, Department of Environmental Sciences, Wageningen University and Research Center, the Netherlands. The project is supported by the Ministry of Development Cooperation, Directorate-General of International Cooperation (DGIS), Government of the Netherlands. As a part of the project, SaciWATERS organized an international conference on “Water Resources Policy in South Asia” in Colombo, Sri Lanka, during December 17–20, 2008. The conference brought together many regional and international water professionals, academicians, policy-makers, activists, politicians and others involved and interested in South Asian water resources issues. It ventured out to enhance the understanding of water resources governance, and water management and use in the region by critically assessing the ongoing policy reform processes.

The chapters appearing in this book were presented as papers, discussed and deliberated at the international conference. Later, they were peer-reviewed and brought to the present shape, covering nuanced case studies on topical issues such as gender and water, groundwater, water conflict and cooperation and emerging challenges for water management and policies in South Asia. This book is part of a series of readers produced under the Crossing Boundaries Project. Largely written by South Asian scholars, they dwell on water resources issues and different aspects of IWRM in South Asia. At present, there are 10 books underway as part of the initiative.

I hope that the present book will be of interest to all those concerned with water resource management and policy-formulation process in South Asia.

**E. R. N. Gunawardena**

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