

DAMS AND DEVELOPMENT

A NEW FRAMEWORK
FOR DECISION-MAKING

THE REPORT OF THE WORLD COMMISSION ON DAMS



November 2000

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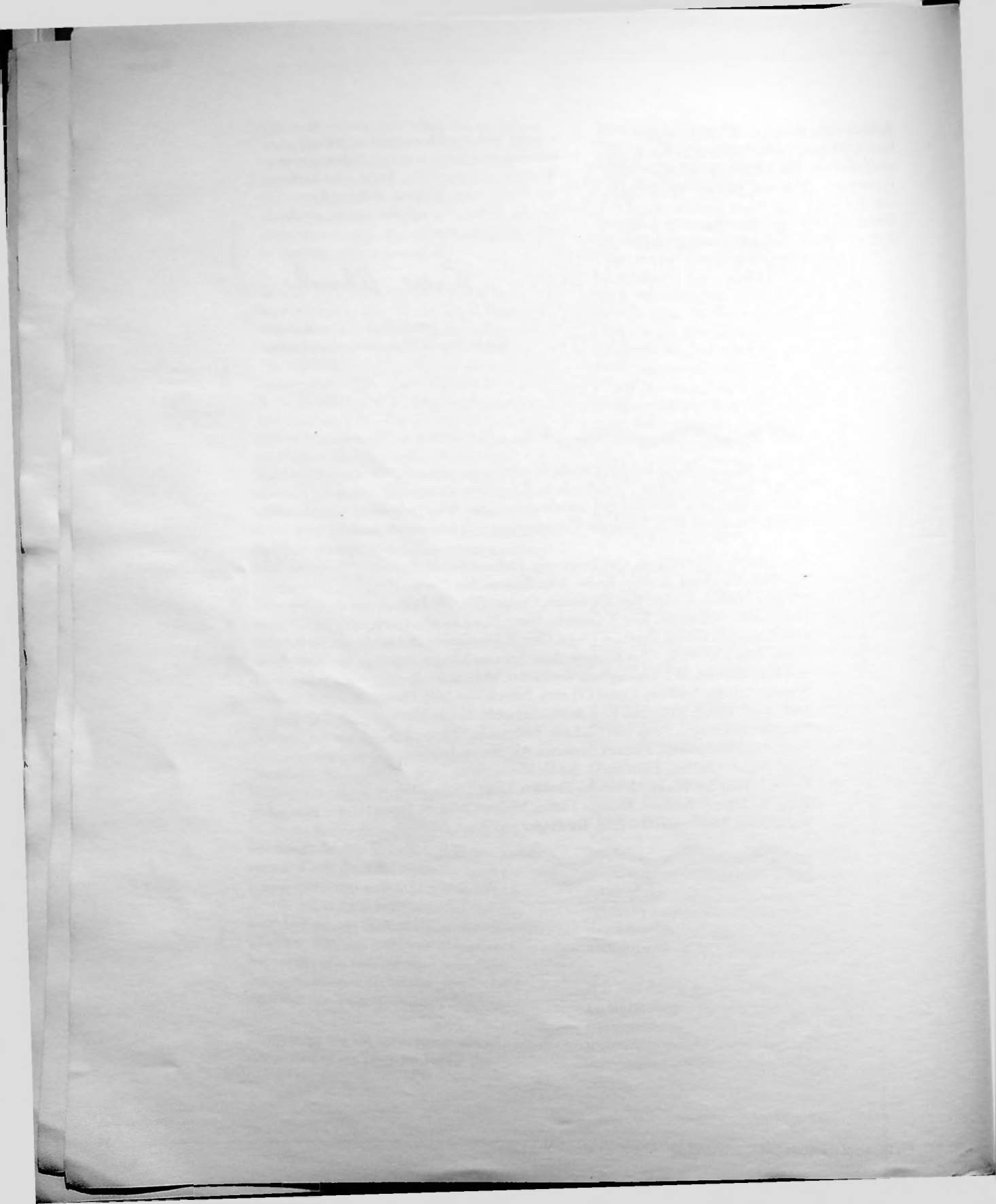
Chair's Preface

Globalisation From Below



Professor Kader Asmal
Chair, World Commission on Dams

If politics is the art of the possible, this document is a work of art. It redefines what is possible to all of us, for all of us, at a time when water pressure on governments has never been more intense. Consider: on this blue planet, less than 2.5% of our water is fresh, less than 33% of fresh water is fluid, less than 1.7% of fluid water runs in streams. And we have been stopping even these. We dammed half our world's rivers at unprecedented rates of one per hour, and at unprecedented scales of over 45 000 dams more than four storeys high.



Commissioners' Foreword



The World Commission on Dams (WCD) was born out of a small but significant IUCN-World Bank sponsored workshop in Gland, Switzerland in April 1997. Representatives of diverse interests came together to discuss the highly controversial issues associated with large dams. To the surprise of participants, deep-seated differences on the development benefits of large dams did not prevent a consensus emerging. That consensus included the proposal for a World Commission on Dams.



Mr Jan Veltrop
Honorary President,
ICOLD, USA



Mr Achim Steiner
WCD Secretary-General,
Germany

Report is the test against which that process will be measured. We hope that the policy framework and practical guidelines for its implementation presented here will add significant value to existing norms and form a basis for best practice in water and energy development. This is only a beginning, but we hope it is a dynamic beginning that others can take forward in the future. We also hope that the lessons learnt from our analysis of large dams will be seen as relevant for other large infrastructural projects, and that the framework of policy development and implementation we have identified will see wider application.

The life of the World Commission on Dams ends with the publication of this Report. For the Commissioners this has been an exciting, challenging and enriching process. It would not have been possible without the tireless commitment of an extraordinary team of professionals in the Secretariat. But more, we are indebted to hundreds of people around the world who, mostly at their own expense, have given us the bounty of their knowledge, expertise and life's experiences through discussion papers, submissions and presentations adding light and life to this report on large dams.

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Acronyms and Abbreviations



ADB	Asian Development Bank	ILO	International Labour Organization
AfDB	African Development Bank	IRN	International Rivers Network
CBA	cost-benefit analysis	IRP	independent review panels
CHIA	cultural heritage impact assessment	ISO	International Organization for Standardization
CHP	combined heat and power	IUCN	World Conservation Union
DRD	Declaration on the Right to Development	LCA	life cycle assessment
DSM	demand-side management	MCA	multi-criteria analysis
DSS	decision support system	MIGA	multilateral investment guarantee agency
EA	environmental assessment	MRDAP	mitigation, resettlement and development action plan
ECA	export credit agency	MW	megawatts
EFA	environmental flow assessment	NGO	non-governmental organisation
EFR	environmental flow requirement	NORAD	Norwegian Agency for International Co-operation
EIA	environmental impact assessment	O&M	operation and maintenance
EIRR	economic internal rate of return	OECD	Organisation for Economic Co-operation and Development
EPA	Environmental Protection Agency	OED	Operations Evaluation Division (of the World Bank)
FIRR	financial internal rate of return	PCB	polychlorinated biphenyls
FSC	Forestry Stewardship Council	PIC	prior and informed consent
GATT	General Agreement on Tariffs and Trade	PV	photovoltaic
GDP	gross domestic product	R&D	research and development
GHG	greenhouse gas/es	SA	strategic impact assessment
HIA	health impact assessment	SIA	social impact assessment
HLC	high level committee	SIDA	Swedish International Development Agency
IA	impact assessment	SRI	socially responsible investing
IADB	Inter-American Development Bank	UNDP	United Nations Development Programme
ICID	International Commission on Irrigation and Drainage	USAID	US Agency for International Development
ICJ	International Court of Justice	WCD	World Commission on Dams
ICOLD	International Commission on Large Dams	WRI	World Resources Institute
IEA	International Energy Agency		
IFC	International Finance Corporation		
IFI	international finance institutions		
IHA	International Hydropower Association		