

THE WATSAVE SCENARIO

INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE

GLOSSARY OF TERMS AND ABBREVIATIONS USED IN THE TEXT OR TABLES

BCM	Billion Cubic Meter (Km ³)
MCM	Million Cubic Meter
Cum/m ³	Cubic Meter
ha	Hectare
M	Million
m	Meter
TIA	Total Irrigated Area
IA	Irrigated Area
GW	Ground Water
SW	Surface Water
BI	Border Irrigation
CI	Contour Irrigation
FI	Furrow Irrigation
Sp	Sprinkler
NP	Non-point Source
Munic.	Municipal
indus.	Industrial
agr.	Agriculture
EPA	Environmental Protection Agency
FEPA	Federal Environmental Protection Agency
O&M	Operation & Maintenance
MC	Main Canal
DC	Distributory Canal
FC	Field Channel
sys. oper	System Operation
NL	National Level
MO/Min.	Ministry of
R&D	Research and Development
DOE	Department of Environment
MOAG	Ministry of Agriculture
MONR	Ministry of Natural Resources
MOPH	Ministry of Public Health
MOPWWR	Ministry of Public Works and Water Resources
Constn.	Construction
Veg	Vegetables
DO	District Officer
WDD	Water Development Department
Coop.	Cooperative
Multidisc.	Multidisciplinary
Ext.	Extension

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FOREWORD

The Earth Summit's Agenda 21 adopted by the 178 participating countries at Rio-de-Janeiro in June 1992 stressed the need for ensuring adequate food and water for all the people on this globe. Crop production is to be increased by 3-4 percent per annum amongst others, mainly by increase in the productivity of the agricultural use of water. Demands on available fresh water are bound to increase due to growth of population and improved life styles. Use of water in agriculture must therefore be handled very meticulously. Towards this end ICID has initiated a Watsave movement through its Hague declaration in 1993.

Pursuant to this, an informative booklet was published in 1995 on the basis of the preliminary information received by ICID about the Water Saving practices adopted by some of its leading member countries. Soon thereafter, a questionnaire was sent to 66 countries inviting detailed information on their activities for water saving. The questionnaire sought information about all aspects of water uses and about the procedures and controls established for saving water. Information was also requested about the potential for reuse of municipal waste water, industrial effluents and/or use of recycled drainage water or desalinated water.

ICID was very happy to receive responses from as many as 27 countries around the world. Four of those submitted only brief notes about their activities but seven countries furnished data from their case studies also. The coverage in terms of area irrigated in the world as represented by these 27 responses is quite large i.e. 60% of the world's irrigated area. The responses from Africa represent 40% of the irrigated area of the continent and Asian responses constitute 92% of the irrigated area in Asia. It is true that the south American experience is not yet well reflected with only 14% of irrigated area being represented by the responses received. The purpose of this document is to share the compiled information with all the managers of water and agriculture and to promote greater interest in the management of water at large and in the management of irrigation water in particular to achieve the objective of Watsave. ICID is grateful to the National Committees of Australia, Austria, Bangladesh, Chile, China, Cyprus, Egypt, France, Germany, India, Indonesia, Israel, Italy, Republic of Korea, Malaysia, Mongolia, Nigeria, Pakistan, Slovenia, South Africa, Spain, Thailand, Turkey, United Kingdom, United States of America and Zambia and Chinese Taipei Committee for the valuable information furnished by them in response to the questionnaire. This document would not have been possible but for their efforts in compiling and transmitting the needed information.

In spite of some limitations of the responses from the Committees, some patterns in Watsave practices are clearly discernible from the replies. They have been highlighted in this compilation. Examples of the Watsave practices already in vogue and the important features of some of the Watsave programs are also highlighted

in this publication. These together indicate the path that may have to be taken in the future.

The information received from the responding National Committees ran into several hundred pages. It was a herculean task to collate all this information into a meaningful form and present it in useful manner. Mr. B.S. Rajvanshi, who was specially appointed in the central office as officer on special duty for the purpose carried out this task admirably well. He deserves our grateful thanks for the stupendous work.

Here I would also like to gratefully acknowledge the continuous encouragement and support provided to the ICID Central office, and individually to me also, in the conceptualisation and the development of this document, by Mr. John Hennessy, President Hon. ICID and the Chairman of the ICID Watsave team. It was Mr. Hennessy, who, as a president ICID. had initiated the launching of the Watsave programme of ICID in the year 1993 at the ICID congress at the Hague on the subject of "Water management in the Next Century." Again it was Mr. Hennessy, who organised the development of a critical and exhaustive questionnaire to seek information on the water-use practices and regulatory measures from ICID member countries. His constructive suggestions on the outline and the preliminary text of this document had been very helpful in shaping the document in a proper and meaningful form.

Undertaking of intensive work on the analysis of the voluminous information received from the member Committees in response to the ICID. questionnaire and the development of a useful format and a meaningful text for the document was possible only because of the generous financial support of US \$ 10,000 received by the ICID. Central Office from USBR. ICID is grateful to USBR for the initial pacesetting innovative work on the setting up of the questionnaire as a member of the Watsave team and their subsequent financial support for the required follow up.

In compiling, summarizing and interpreting the information received, it is possible that there may have been some omissions and even alterations. But rather than withholding or delaying this book for further checks or cross-checks, it was considered desirable to make it available to the water community at large early for generating further active interest in the topic of Watsave. Hopefully a revised and more refined enlarged version should be possible after a couple of years.

It is hoped that this ICID compilation will serve as a useful source of informations and inspirations for all the managers of water and agriculture.

New Delhi
28 December 1997

M.A. Chitale
Secretary General