



Drought Proofing and Water Resource Management



T.S.Chouhan

**DROUGHT PROOFING
AND
WATER RESOURCE
MANAGEMENT**

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Published by:

SCIENTIFIC PUBLISHERS (INDIA)

5A, New Pali Road, P.O. Box 91

Jodhpur 342 001, India

E-mail: info@scientificpub.com

Website: www.scientificpub.com

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ISBN: 978-93-88172-88-2

eISBN: 978-93-88172-90-5

Printed in India

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Preface

Droughts and their management are a serious challenge to water resource professionals. Droughts predominate in arid, semi-arid regions, their frequency and severity is more in temperate regions with abundant rainfall that have been on the rise. Drought Proofing and Water Resources Management provides an essential collection of planning and management tools for minimizing the negative impacts of droughts. It covers water conservation and reuse, conjunctive use and use of marginal resources, desalination, deep groundwater extraction, optimization modeling, and decision support systems.

The book presents best management practices that maximize efficiency, reliability, and economy which minimizing the potential for adverse effects to the environment and human health. The chapters discuss how conjunctive water use can increase water availability in the developing world and what types of conjunctive use schemes are the most promising. The book examines the feasibility of a drought watch alert system and the legal and administrative framework required. It also explores the application of the Optimization Models and the Decision Support Systems to the study of different water management alternatives under drought conditions. Drought Proofing and Water Resources Management delineates how to reduce drought effects through pro-active vision, good management, and conjunctive use of water sources.

Drought is a recurring feature in arid and semi arid regions of India. Every effort is made to combat it since Independence. Still drought stays here as unwanted guest. Thousands of million Rupees are spent on drought and Flood control. This is now high time to rethink and review our policies and planning. There is need for permanent drought proofing in the state rather than short-term measures during incidence of drought disaster only. Efforts have been made in this book to critical review the scenario for drought proofing of the state through Water Resource Management.

Comprehensive, thought-provoking, informative, and featuring new research data, this collection will provide policy makers and professionals with the opportunity to discuss and debate policies for sustainable livelihood support systems and drought management. It would also be an invaluable source of information for students and teachers working in the fields of Water and Natural Resource Management, Environmental Planning, Agricultural Economics, Agricultural Planners, Geohydrologists, Rural Development, Public Policy, Public Administration, Extension and Research Workers.

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Acknowledgements

I am grateful to the officers of Central Ground Water Board, Jaipur, State Ground Water Department, Jaipur, Central Arid Zone Research Institute, Jodhpur for providing support and scientific literature/data at various stages of investigations as well as preparation of maps and finalisation of book. Assistance rendered by faculty of science, University of Rajasthan is gratefully acknowledged.

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