

**REPORT  
OF  
THE WESTERN GHATS WATER RESOURCES  
STUDY COMMITTEE**



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MEMBER  
Planning Commission  
Yojana Bhavan  
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## FOREWORD

The Sixth Five-Year Plan has outlined a detailed strategy for the conservation of mountain eco-systems and for promotion of water conservation and management in hilly terrain. The Himalayan and Western Ghats regions have been chosen for integrated attention, since both these regions are the centres of origin of many of our major river systems as well as of several important economic plants and farm animals. The conservation of the natural assets of these regions is also vital for the prosperity of the plains. Unfortunately, considerable damage has taken place both to the Himalayan and Western Ghats ranges due to lack of attention to the principles of eco-development and due to extensive denudation of forests. In order to arrest further damage to fragile mountain eco-systems and to promote development without destruction, special groups have been set up separately for the Himalayan and Western Ghats regions.

2. The Western Ghats Region, which extends from Maharashtra to Kerala, has rich forest and hydel resources. The region also receives heavy rainfall during the south-west monsoon period. In spite of these endowments, the people in the area have remained poor due to inadequate scientific resource conservation and utilisation strategies. On a suggestion from the Chief Minister of Maharashtra, a beginning has been made to undertake an interdisciplinary analysis of rainwater conservation and natural resources utilisation in the Konkan region. The Konkan region along the western foothills of Sahyadri receives from 2,000 mm to 5,000 mm of rainfall during June-September. Leaving aside small strips of coastal plains, nearly the entire terrain is rugged and dissected by high hills with steep slopes. There is also considerable variability in the rainfall characteristics of the watershed along the western and eastern sides of the Sahyadri range. For example, the precipitation on the eastern slopes diminishes very fast to less than 800 mm within a short distance of 50 km. from the ridge line. Since the precipitation in Konkan is limited to a period of less than 120 days and the soil moisture holding capacity is poor, the rivers in Konkan dry up very fast. Hence there is scarcity of water in the non-rainy season. The coastal belt along the Konkan

has also special features including a large reclaimable *khar* land area and mangroves. An urgent need of the region, therefore, is the conservation of the rainwater which is lost through surface run off within a short period of time. Water conservation measures should be accompanied by appropriate land use plans based on considerations of ecology, economics, energy needs and employment generation. Thus, land and water conservation and use will hold the key to optimising the benefits of the natural endowments of the area for the present and future population of the region. The economic development of this region will also make it unnecessary for the rural poor to migrate to Bombay City seeking for wage employment. Proper surface and ground water utilisation is also necessary for meeting the needs of the human and animal population for drinking water.

3. In order to look at the problems and potential of the Konkan region, in an integrated manner, a Western Ghats Water Resources Study Committee was set up by the Planning Commission. The present report represents the first in a series of studies undertaken and is confined to the Konkan region of Maharashtra. The Government of Maharashtra provided the necessary technical and administrative support for ensuring the completion of the study within a short span of 3 months. It is proposed to initiate a similar study in the Goa region with the help of the Government of Goa. Our sincere thanks are due to Shri A. R. Antulay, Chief Minister of Maharashtra, who was instrumental in getting the present study initiated. The Committee is also indebted to Shri Narayan Datt Tiwari, Minister for Planning and Deputy Chairman, Planning Commission, for having entrusted to it this important and challenging task.

4. I would like to acknowledge with gratitude the wholehearted co-operation received from all members of the Committee. Particular thanks are due to the Convenors of the three Task Forces set up by the Committee at its first meeting, viz., (1) Shri M. G. Padhye, Member, Central Water Commission, Delhi, (2) Shri G. S. Ghanekar, Chief Engineer, Konkan Region, Bombay, and (3) Dr. R. S. Murthy, Director, National Bureau of Soil Survey and Land Use Planning, Nagpur. A very large number of individuals and institutions have given the Committee their valued guidance and suggestions. But for such an enthusiastic response from technical, administrative and voluntary organisations, it would not have been possible to gather so much valuable data and offer a plan of action. It is obvious that such a study would not have been easy but for the Committee having had the services of an able and dedicated Member-Secretary. I would like to record on behalf of my colleagues and myself in the Committee our sincere thanks to Shri M. A. Chitale, Chief Engineer (IWD) and Joint Secretary, Irrigation Department, Government of Maharashtra, for the extraordinarily competent manner in which he organised the work of the Task Forces and of the Committee.

5. I hope that this analysis of problems and of opportunities for development would lead to prompt action. Action should start from the coming south-west monsoon period. It was with this motivation that the Committee decided to complete its work as speedily as possible. The recent census has shown that the population of our country is gaining numerically by over 17 million individuals every year. Therefore, both the short and long-term implications of losing time in the area of scientific eco-development are obvious.

*M. S. Swaminathan*

(Dr. M. S. SWAMINATHAN)

*Member, Planning Commission*

New Delhi, March 25, 1981

## ABBREVIATIONS

BHA	..	..	Bombay Hydrometric Area.
BMC	..	..	Bombay Municipal Corporation.
BMRDA	..	..	Bombay Metropolitan Region Development Authority.
CADA	..	..	Command Area Development Authority.
CEA	..	..	Central Electricity Authority.
CIFE	..	..	Central Institute of Fisheries Education.
C.P.E.	..	..	Cumulative Pan Evaporation.
C.S.R.	..	..	Commencement of Sowing Rains.
CWC	..	..	Central Water Commission.
CWPRS	..	..	Central Water Power Research Station.
DCKL	..	..	Development Corporation of Konkan Limited.
D.P.A.P.	..	..	Drought Prone Area Programme
E.G.S.	..	..	Employment Guarantee Scheme
F.Y.P.	..	..	Five-Year Plan
GSDA	..	..	Ground Water Survey and Development Agency.
GSI	..	..	Geological Survey of India.
H.Y.V.	..	..	High Yielding Variety.
IARI	..	..	Indian Agricultural Research Institute.
ICAR	..	..	Indian Council for Agricultural Research.
IDCOM	..	..	Irrigation Development Corporation of Maharashtra.
I.R.D.P.	..	..	Integrated Rural Development Programme.
IWD	..	..	Inter-State Water Development.
KKV	..	..	Konkan Krishi Vidyapeeth (Dapoli).
L.B.C.	..	..	Left Bank Canal.
L.F.	..	..	Load factor.
LT	..	..	Low tension.
MERI	..	..	Maharashtra Engineering Research Institute (Nasik).
M.I.	..	..	Minor Irrigation.
MIDC	..	..	Maharashtra Industrial Development Corporation.
N.R.E.P.	..	..	National Rural Employment Programme.
PAD	..	..	Peoples' Action for Development.
P.S.S.	..	..	Pump Storage Schemes.
R.B.C.	..	..	Right Bank Canal.
REC	..	..	Rural Electrification Corporation.
R.L.	..	..	Reduced Level.
SICOM	..	..	State Industrial Investment Corporation of Maharashtra.
T. ha. m.	..	..	Thousand hectare metre
TMC	..	..	Thousand Million Cubic feet.
TRYSEM	..	..	Training of rural youth for self-employment.
UNDP	..	..	United Nations Development Programme.
UNIDO	..	..	United Nations Industrial Development Organisation.
W.G.D.	..	..	Western Ghats Development.
ZP	..	..	Zilla Parishad.

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