

**STUDY ON SURVEY
AND
RECLAMATION OF RAVINES
IN INDIA**



सत्यमेव जयते

COMMITTEE ON NATURAL RESOURCES

PLANNING COMMISSION

NEW DELHI

1965

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FOREWORD

The total extent of ravine lands in India is about 3 million hectares. The problem of such lands is acute in the States of Madhya Pradesh, Uttar Pradesh, Rajasthan and Gujarat. In addition considerable area known as marginal lands is in a state of acute erosion which requires immediate attention if it is to be prevented from coming under ravines. The magnitude of the problem can be gauged when one knows that the rate of ravine formation is of the order of 3 000 acres per year in Madhya Pradesh alone. These critical areas need immediate handling not only for preventing further formation of ravines but also for the reclamation of existing ravines for useful production. The land reclaimed from the ravines should be put to the use depending upon its use capability. It has been stressed in the study that deep ravines should be put under forest. I do hope that the recommendations made in the study will be found useful by the State Governments concerned and will receive immediate attention.

December 1 1964

M S THACKER

Member (Natural Resources)

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PREFACE

The Committee on Natural Resources at its second meeting held on September 7, 1962 approved the study on 'Survey and Reclamation of Ravines in India'. The Committee felt that complete information was not available about the extent of ravine lands and the steps taken so far to reclaim them. The increase of ravines was adding to the problem and it was therefore felt necessary that a study on the survey and reclamation of ravines for fruitful utilisation should be undertaken. The scope of this study was (i) to survey the occurrence and extent of such lands in various States of the country (ii) to review the work that had already been done so far for reclamation and improvement of the fertility status of such impoverished lands and (iii) to suggest a comprehensive long-term plan of work in reclamation and utilisation of land and measures to check further erosion in agricultural land. The study was entrusted to Shri K D Sharma Research Officer under the guidance of Senior Specialist (Land Resources).

The draft of the study was circulated amongst the Directors of Agriculture Chief Conservators of Forests and other Soil Conservation Officers in States and the members of the Working Group on Soil Conservation in River Valley Projects and their views and comments were invited. The comments received were duly considered and incorporated in a revised study which was discussed at a meeting in the Planning Commission held on the 23rd September 1964. The study has undergone further revision in the light of the comments made at that meeting. The study has reviewed the methods and cost of reclamation which would differ from region to region depending upon the topography of the land and the soil conditions. It has been suggested that survey of these lands on the basis of aerial photographs should be completed within five years. The time limit for reclamation should not exceed fifteen years. The immediate measure that is necessary is protection of the marginal agricultural land from coming under ravines. It has been recommended that, by and large the deep ravines should be put under forest.

The study has been conducted by a team of experts whose names are attached. I express my thanks to the members of the study team for helpful cooperation in the preparation of this report.

December 1 1964

A B GUHA
Adviser (Resources)

STUDY TEAM

PLANNING COMMISSION

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- 2 Dr S P Raychaudhuri Senior Specialist (Land Resources)
- 3 Shri K P Sagreya Senior Specialist (Forest Resources)
- 4 Dr V Nath Deputy Secretary (Natural Resources)
- 5 Shri P N Chaudhuri Senior Research Officer Resources Division
- 6 Shri K D Sharma Research Officer Resources Division

MINISTRY OF FOOD AND AGRICULTURE

- 7 Dr R V Tamhane Soil Conservation Adviser
- 8 Shri D H Kulkarni Deputy Inspector General of Forests

CENTRAL WATER & POWER COMMISSION

- 9 Shri V K Sharma Director (Soil Conservation)

STATE GOVERNMENTS

- 10 Shri R C Soni Chief Conservator of Forests U P
- 11 Shri T N Srivastava Chief Conservator of Forests, Rajasthan.
- 12 Shri R M Singhal Conservator of Forests Development Circle, Madhya Pradesh
- 13 Shri S R Umbarje Conservator of Forests Kotar Afforestation and Reclamation Baroda Gujarat

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- (2) Report on Ravine Reclamation in Rajasthan Committee of Government of Rajasthan (1960)

(B) Notes Received

- | | |
|---|--|
| (3) A D Khan
Joint Director of Agriculture
(Soil Conservation) (U P) | (a) Rehman Khera Farm
(b) Reply to questionnaire
(c) Report on Bah Reclamation Scheme
(d) Note on Fisher Forest |
| (4) Balbir Varma
Soil Conservation Officer
Vasad | Reply to questionnaires |
| (5) S R Umbarje
Conservator of Forests
Baroda | Note on ravine lands in Gujarat |
| (6) N W Tiloo
Joint Director of Agriculture
(Land Development)
Madhya Pradesh | Reply to questionnaire |
| (7) R C Soni
Chief Conservator of Forests
Uttar Pradesh | Reply to questionnaire |
| (8) Shri Karnikar,
Madhya Pradesh | Note on Ravine Reclamation |
| (9) Shri Inderpurkar
Divisional Soil Conservation
Officer Gwalior
Madhya Pradesh | Reply to questionnaire |
| (10) Annual Reports of Soil and Water Conservation Research Training and Demonstration Centres at Kotah Vasad Agra and Chandigarh | |

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Soil Conservation H Bennett 1939 McGraw Hill, New York

- (13) Second Seminar on Soil Conservation Central Board of Soil Conservation 1958 Ministry of Food and Agriculture
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- (16) Soil Conservation in India—M S V Rama Rao Indian Council of Agriculture Research 1962
- (17) Ravines and what to do about them I C A R Information leaflet No 41 Ministry of Food and Agriculture
- (18) R M Gorrie—Soil and Water Conservation in Punjab 1946 (Published by the Punjab Government)
- (19) K G Tejwani and others—Reclamation of ravines and gullies in Gujarat —Second Seminar on Soil Conservation (Central Board of Soil Conservation Govt of India 1958)

(D) *Comments received on the first draft of the study*

- (20) R C Soni Chief Conservator of Forests U P (Letter No 7798 W dated 8 2 64)
- (21) K L Lahiri Chief Conservator of Forests West Bengal (Letter No 4312/B & D/30 31 dated 15 4 64)
- (22) S Krishnamurti Director of Agriculture Madras (Letter No SC(B/107451/64 dated 1 5 64)
- (23) S P Sahi Chief Conservator of Forests Bihar (Letter No 3796 dated 5-5 64)
- (24) R D Joshi Chief Conservator of Forests Gujarat (Letter No P/23/187/A dated 17 4 64)
- (25) M S V Rama Rao Soil Conservation Adviser Department of Agriculture Punjab (Letter No 252/31-473 III Sc dated 8 4-1964 and No 4548 Sc dated 2-5 64)
- (26) Balbir Verma Soil Conservation Officer Vasad (Letter No 4 28/64/Genl/513 dated 11 3 64)
- (27) M C Jacob Director of Soil Conservation, Assam (Letter No SCD/32/64 dated 9 4-1964)
- (28) K N Mishra Chief Conservator of Forests Madhya Pradesh (Letter No DC/ET/187 dated 11-4 1964)
- (29) R R Agarwal Director of Agriculture U P (Letter No SCE 4753 dated 18 4 64)
- (30) T S Gill Director of Agriculture Madhya Pradesh (Letter No 33/64/514I dated 16 4 64)

- (31) V K Sharma Director Soil Conservation Central Water and Power Commission (Letter No 15/2/63-Sc dated 25-4 64)
- (32) R V Tanhare Soil Conservation Adviser Ministry of Food and Agriculture (Letter No 6154 SC (PI) dated 8-5 64)

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PRINTED IN INDIA BY THE GENERAL MANAGER GOVERNMENT OF INDIA PRESS
NEW DELHI AND PUBLISHED BY THE MANAGER OF PUBLICATIONS DELHI 1965
