
SOIL EROSION AND ITS CONTROL

Edited by

R. P. C. MORGAN
Silsoe College
Silsoe, Bedford, England



A Hutchinson Ross Publication



VAN NOSTRAND REINHOLD COMPANY
New York

CONTENTS

Series Editor's Foreword	vii
Preface	xi
Contents by Author	xiii
Introduction	1
PART I: AWARENESS AND ATTITUDES	
Editor's Comments on Papers 1, 2, and 3	4
1 LOWDERMILK, W. C.: Man-made Deserts <i>Pacific Affairs</i> 8(4): 409-419 (1935)	9
2 JACKS, G. V.: Soil Erosion <i>The Rape of the Earth. A Survey of Soil Erosion</i> , G. V. Jacks and R. O. Whyte, Faber, London, 1939, pp. 17-28	20
3 ECKHOLM, E. P.: Two Costly Lessons: The Dust Bowl and the Virgin Lands <i>Losing Ground</i> , E. P. Eckholm, Pergamon, Oxford, 1976, pp. 46-57, 190-191	32
PART II: MEASUREMENT AND INVENTORY	
Editor's Comments on Papers 4, 5, and 6	46
4 HUDSON, N. W.: The Design of Field Experiments on Soil Erosion <i>Jour. Agric. Eng. Research</i> 2: 56-65 (1957)	52
5 DUNNE, T.: Studying Patterns of Soil Erosion in Kenya <i>FAO Soils Bull.</i> 33: 109-122 (1977)	62
6 RAPP, A.: Soil Erosion and Sedimentation in Tanzania and Lesotho <i>Ambio</i> 4: 154-163 (1975)	76
PART III: ASSESSMENT AND EVALUATION	
Editor's Comments on Papers 7 Through 13	88
7 GRANT, K. E.: Erosion in 1973-74: The Record and the Challenge <i>Jour. Soil Water Conserv.</i> 30: 29-32 (1975)	95
8 JIANG, D., L. QI and J. TAN: Soil Erosion and Conservation in the Wuding River Valley, China <i>Soil Conservation: Problems and Prospects</i> , R. P. C. Morgan, ed., Wiley, Chichester, 1981, pp. 461-479	99

Contents

9	DAS, D. C.: Soil Conservation Practices and Erosion Control in India— A Case Study <i>FAO Soils Bull.</i> 33 :11-31, 39-50 (1977)	118
10	RICHTER, G.: On the Soil Erosion Problem in the Temperate Humid Area of Central Europe <i>GeoJournal</i> 4 :279-287 (1980)	151
11	MORGAN, R. P. C.: Soil Erosion and Conservation in Britain <i>Prog. Phys. Geog.</i> 4 :24-47 (1980)	160
12	TEMPLE, P. H.: Measurements of Runoff and Soil Erosion at an Erosion Plot Scale with Particular Reference to Tanzania <i>Geog. Annaler</i> 54-A :203-220 (1972)	184
13	MAENE, L. M., and W. SULAIMAN: Status of Soil Conservation Research in Peninsular Malaysia and Its Future Development <i>Soil Science and Agricultural Development in Malaysia Conf. Proc.</i> , Malaysian Society of Soil Science, Kuala Lumpur, 1980, pp. 307-324	202
PART IV: MODELING		
Editor's Comments on Papers 14 Through 17		222
14	MEYER, L. D., and W. H. WISCHMEIER: Mathematical Simulation of the Process of Soil Erosion by Water <i>Am. Soc. Agric. Eng. Trans.</i> 12 :754-758 (1969)	227
15	BENNETT, J. P.: Concepts of Mathematical Modeling of Sediment Yield <i>Water Resources Research</i> 10 :485-492 (1974)	233
16	FOSTER, G. R., L. J. LANE, J. D. NOWLIN, J. M. LAFLEN and R. A. YOUNG: Estimating Erosion and Sediment Yield on Field-Sized Areas <i>Am. Soc. Agric. Eng. Trans.</i> 24 :1253-1262 (1981)	241
17	MORGAN, R. P. C., D. D. V. MORGAN and H. J. FINNEY: A Predictive Model for the Assessment of Soil Erosion Risk <i>Jour. Agric. Eng. Research</i> 30 :245-253 (1984)	251
PART V: SOCIAL AND ECONOMIC ASPECTS		
Editor's Comments on Papers 18, 19, and 20		262
18	HUDSON, N. W.: Non Technical Constraints on Soil Conservation <i>South-East Asian Regional Symposium on Problems of Soil Erosion and Sedimentation</i> , T. Tingsanchali and H. Eggers eds., Asian Institute of Technology, Bangkok, 1981, pp. 15-26	268
19	TEMPLE, P. H.: Soil and Water Conservation Policies in the Uluguru Mountains, Tanzania <i>Geog. Annaler</i> 54-A :110-123 (1972)	280
20	RUNOLFSSON, S.: Soil Conservation in Iceland <i>The Breakdown and Restoration of Ecosystems</i> , M. W. Holdgate and M. J. Woodman, eds., Plenum, New York, 1978, pp. 231-238	293
Author Citation Index		301
Subject Index		307
About the Editor		311