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Subhabrata Panda

Soil and Water Conservation for Sustainable Food Production

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Series Editor's Foreword

This book is intended to be a constituent companion of structured textbooks on soil science, soil conservation, soil physics, soil health, soil and water conservation, etc. A single book cannot afford to deal with all aspects of knowledge of soil science, as that branch of science has grown up to the unthinkable dimensions from studies on massive soil mass to soil particles and colloidal clay micelle, soil microbial community, soil organic matter, soil nutrients, soil moisture and their uptake by plants, management of aquatic environment. Moreover, physical, chemical, microbial and biochemical properties of soils and their interactions with climate and hydrological conditions for successful crop cultivation should be considered in this ambit. Naturally, all the relevant books have to deal with the application of methodologies for determining all those vast soil features, from gravimetric methods to applications of nuclear and nanotechnologies, and application of soil and water conservation methods. Basically, the correct management of soil organic matter and soil moisture would diminish soil loss and simplify the management of problem soils and irrigation water with the aim of reaching the 15 Sustainable Development Goals of the United Nations. Consequently, this book presents a brief discourse on the development of basic ideas concerning above-mentioned areas of concepts and applications. Hopefully, this book will be a ready reference for students appearing in competitive exams and internship evaluation projects and serve as a brief commentary for studies, research and field works targeted on individual agricultural plots and further development of soil and water conservation as a full-fledged stream of science.

Palermo, Italy

Salvatore Parisi
Series Editor for SpringerBriefs
in Chemistry of Foods

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Jhargram, India
June 2022

Subhabrata Panda

Contents

1	Introductory Remarks: Soil and Water Conservation for Soil Health	1
1.1	Introduction	2
1.2	Summary	7
	References	8
2	Soil Properties Responsible for Soil Loss	13
2.1	Introduction	15
2.2	Erodibility of Soil and Its Three-Phase System	17
2.2.1	Erodibility of Soil and Soil Texture	17
2.2.2	Erodibility of Soil and Soil Structure	17
2.3	Soil Properties Responsible for Water Erosion	18
2.3.1	Soil Properties and Estimation of Water Erosion	18
2.4	Soil Properties Responsible for Both Water and Wind Erosions	20
2.4.1	Forces of Wind/Water Acting on Soil Grains at Threshold of Soil Movement	21
2.5	Soil Properties Influencing Crop Growth	22
2.6	Soil Loss Causing Vulnerability to Soil Ecosystem—A Major Dialectics of Nature	26
2.7	Concluding Remarks	29
	References	30
3	Impact of Climate, Water and Biological Factors on Soil Health	35
3.1	Introduction	36
3.2	Formulation of Soil Quality Indexing Including Water Quality in the Context of Climate Change	38
3.3	Effect of Water on Soil Health in the Context of Climate Change	39
3.4	Soil Microbial Biomass—A Tool for Assessment of Soil Health in the Context of Climate Change	43
3.5	Genetic and Functional Biodiversity of Soils, Soil Health and Climate Change	44

3.6	Soil Health Key Indicators for in Situ Soil Health Assessment Under Climate Change	45
3.7	Concluding Remarks	46
	References	46
4	Effect of Soil on Water Quality	53
4.1	Introduction	54
4.2	Effect of Geology on Water Quality	54
4.3	Effect of Topography on Water Quality	55
4.4	Effect of Soil Erosion and Water Quality as Influenced by Climate	55
4.5	Effect of Soil Properties on Water Quality	55
4.6	Effect of Soil Erosion on Water Quality as Influenced by Vegetation Cover	56
4.7	Effect of Watershed on Water Quality	56
4.7.1	Effect of Soil Erosion on Water Quality of Aquatic Ecosystem and Watershed Hydrology	57
4.8	Effect of Land Use Land Cover on Water Quality	60
4.9	Concluding Remarks	61
	References	61
5	Soil and Water Qualities Necessary for Irrigation	65
5.1	Introduction	66
5.2	Land Characterisation Necessary for Irrigation	66
5.3	Soil and Water Compatibility Necessary for Irrigation	67
5.3.1	Interaction Between Soil and Water	67
5.3.2	Physiological Drought Soil Condition	69
5.3.3	Diagnosis of Soil Properties for Irrigation Management	71
5.3.4	Irrigation Water Quality	73
5.4	Irrigation Management in Salt Affected Soils	74
5.5	Diagnosis of Salt Affected Soils	75
5.6	Soil and Water Management for Sustainable Crop Production	76
5.7	Concluding Remarks	76
	References	77
6	Soil Moisture Conservation Influencing Food Production	79
6.1	Introduction	80
6.2	Soil Moisture Storage as Affected by Rooting Depth, Soil Bulk Density, Rainfall and Evapotranspiration	81
6.3	Soil Moisture Conservation Techniques and Implementation	82
6.3.1	Implementation Considerations for Soil Moisture Conservation Technologies	86
6.4	Beneficial Roles of Soil Moisture Conservation	88
6.5	Prospects and Problems of Soil Moisture Conservation Techniques	88
6.5.1	Prospects of Soil Moisture Conservation Techniques	88

6.5.2	Problems of Soil Moisture Conservation Techniques	89
6.6	Concluding Remarks	89
	References	89
7	Management of Soil Organic Carbon	91
7.1	Introduction	92
7.2	SOM, Carbon, Nitrogen, Phosphorus, Sulphur and Humus Interrelations	94
7.3	Role of Soil Organic Matter on Soil Aggregate Stability	96
7.4	Concluding Remarks	100
	References	100
8	Concluding Remarks: Soil and Water for Food Security	103
8.1	Concluding Remarks	103
	References	106

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