Published May 31, 2019

Review of *Soil and Water Resource Protection in the Changing Environment.* Advances in GeoEcology 45

Edited by M. Zlatić and S. Kostadinov. Catena Soil Sciences, Stuttgart, Germany. Hardcover. 334 pp. ISBN: 978–3-51065418–5, US-ISBN 1–59326–267–1.

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Soil and Water Resource Protection in the Changing Environment, edited by Zlatić and Kostadinov, is a unique and well-written book. The book consists of six chapters including selected peer-reviewed contributions presented and discussed at the third Conference of the World Association of Soil and Water Conservation. The flow of the book is consistent except in some chapters and is scientifically well written. The book presents discussion, provides suggestions based on new data analysis, and also makes recommendations about the important factors influencing the functioning of the environment.

Assessment of soil erosion coupled with a biogeochemistry model, the role of slope on soil erosion, assessment of sediment load and discharge, and variability of rainfall intensity on erosivity are some of the important topics covered in Chapters 1 and 2. This information is very useful for researchers involved in studying erosion and hydrologic modeling. Although Chapter 2 meets its objectives, there are some disconnections among the contents of the articles. For instance, most of the contents are related to erosion and sediment discharge; however, inclusion of an article related to environmental contamination due to hydrocarbon somewhat breaks the flow of the chapter.

Chapter 3 consists of articles focused on soil and water conservation strategies as well as approaches to mitigate the effects of climate change. Inclusion of articles such as changes in steppe soils due to climate change from the steppe zone from Russia increases the scope of this chapter. This chapter emphasizes how climate change could adversely impact forest biodiversity, fuel wood production, and economic benefit to humans. In addition, this chapter provides an opportunity for the reader to learn how the establishment of raspberry (*Rubus* sp.) production in the mountains of western Serbia has been helping to conserve biodiversity and significantly help to improve the regional economy.

Chapter 4 includes articles containing data on edaphic soil characteristics of degraded areas of mountainous Zlatibor, Serbia, and uses this information for conservation measure assessment. Similarly, articles describing how phytoremediation and phytostabilization (by growing different plant species such as *Ailanthus altissima* (Mill.) Swingle, *Acer negundo* L., *Pinus sylvestris* L., and *Picea abies* L.) of degraded land containing toxic metals such as Zn, Pb, and Cd can be used to bring these soils back to an acceptable standard is nicely presented in this chapter. Articles on soil quality and agricultural practices including soil morphological, physical, and chemical properties are very important for soil water conservation measures assessment. In addition, how agricultural practices such as tillage tools could influence the topsoil depth and soil quality as well as soil cover in Kenya is well presented in this chapter.

Articles included in Chapter 5 are interrelated with watershed management, with an excellent flow, and significantly met the set objectives. Different biological technologies and approaches are crucial to control and reduce the soil erosion process. Establishment of a catchment area, length of the catchment, land stability, slope of the land, as well as agricultural practices including cover cropping are some of the biological technologies that will help protect soil and are very useful for sustainable watershed management. Multiple criteria and approaches should be followed for evaluating and selecting the most vulnerable areas for soil erosion and

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Received 26 Apr. 2019.
Accepted 1 May 2019.

Citation: Adhikari, P. 2019. Soil and water resource protection in the changing environment. Advances in GeoEcology 45. Vadose Zone J. 18:190001br. doi:10.2136/vzj2019.05.0001br

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their subsequent multiple management practices. Color figures and graphs make this chapter more interesting and attractive to readers.

Chapter 6 consists of articles related to the conservation of soil and water resources around the world and their effects on present and future environmental services, which is one of the biggest issues faced by society. Soil erosion due to natural weather events coupled with anthropogenic practices degrade many hectares of fertile land and impact the socioeconomics of society. Therefore policies on the social and economic aspects of soil and water conservation are very important in the current context. Consequently, soil and water conservation plans must include the biophysical as well as socioeconomic conditions of the local community. Some of the articles in this chapter are focused on sustainable soil and water conservation approaches based on local community socioeconomic factors and human-induced climate change. Scientific papers on detailed strategies and methods for water resource management by different European countries increases the scope of this chapter.

In general, this book reads very well and is useful for researchers from different backgrounds such as hydrologists, hydrological and crop modelers, and soil conservationists. All the chapters contain a good number of informative articles including figures and tables. I will recommend this book as a reference book for students of geophysical science as well as for soil conservationists working with different governmental and non-governmental organizations. This book will provide tremendous research information on how European Union countries have been handling the issue of soil and water conservation, the impact of human-induced climate change on water resources, and sustainable soil and water conservation approaches based on the socioeconomic aspects of the local communities.