

## Preface

This volume is the outcome of an International Conference held in Agadir (Morocco) in November 2009 titled “The Integration of Sustainable Agriculture, Rural Development, and Ecosystems in the Context of Climate Change, the Energy Crisis and Food Insecurity”, chaired by Dr. Mohamed Behnassi. The Conference was jointly organized by the Faculty of Law, Economics and Social Sciences of Ibn Zhor University of Agadir, the North South Center for Social Sciences (NRCS), with the fruitful support and sponsorship of the German Technical Cooperation (GTZ).

This conference was held at a time when world leaders were preparing to meet in Copenhagen on 7–18 December 2009 to negotiate a binding agreement for reduction of green house gases (GHG) to tackle global warming beyond 2012 and to discuss international concerns regarding climate change, energy crises, and global hunger challenges. It is generally understood that if urgent actions are not taken, the ultimate impact of climate change will be the rise of global temperature, change in frequency and patterns of rainfall leading to food insecurity in many developing countries, especially those depending on dryland farming in Africa.

The main objective of the conference was to bring together educators, scientists, researchers, managers, and policy makers from around the world to discuss various aspects of the conference themes and to develop a consensus surrounding the conference synthesis report which contains a set of valuable recommendations, as a way forward for addressing climate change and food security issues.

The conference organizers had received an overwhelming response to the call for papers. The submitted abstracts were reviewed and those deemed appropriate to conference themes were accepted. That led to submission of full papers for conference books. Papers related to conference themes were presented in five plenary sessions and fourteen panels. A natural consequence of the diversity of the papers presented at the conference was the arrangement of the contributions into three books covering different areas of interest. These books can be treated almost independently, although considerable commonalities exist among them. Prior to publication, all pre-selected chapters have been rigorously peer-reviewed by relevant experts.

The papers contained in this book “*Sustainable agricultural development—Recent approaches in resources management and environmentally-balanced produc-*

*tion enhancement*” represent one part of the conference proceedings. The other part is embodied in separate books which are being published simultaneously. The other books are respectively entitled: (1) “*Global food insecurity—Rethinking agricultural and rural development paradigm and policy*”; and (2) *Climate change, energy crisis and food insecurity: the world in quest of a sustainable face*.

In this book, papers pertaining to sustainable agricultural development are presented in four parts divided into 20 chapters. Part I deals with the sustainable use of land resources as a potential for sustainable agricultural development, including aspects like land resources governance, land grabbing, and implications for food security, turning adversity into an advantage, reforestation and zoo-ecological remediation of soil quality improvement, mitigation of salinization, and policy frameworks for farmland use. Part II goes on to discuss sustainable management of water resources at farm level, rice fields, reduction of water losses, and extension and education. Part III deals with innovations in agricultural production including slow release nitrogen fertilizers, organic fertilizers, use of waste as a resource, and the implications of animal breeding technologies. Innovative processes in livestock production have been discussed in Part IV focusing on animal husbandry and the use of sorghum, cactus, and halophytes as animal feed. The editors and the publisher are not responsible for any statement made or opinions expressed by the authors in this publication.

We wish to take this opportunity to express our sincere appreciation to the members of the Scientific Advisory Board, and the Steering Committee, chairmen and rapporteurs of the technical sessions and cooperating organizations for hosting the Agadir Conference and for the publication of the books. Special thanks are due to all authors, coauthors, and reviewers without whom this comprehensive book would not have been produced. We also owe our gratitude to all of those individuals and numerous other people who in one way or the other contributed to the conference and the book, especially those involved from Springer publishing.

Finally, it is hoped that this book will be of interest to researchers, experts, and policy makers in the fields of agriculture, soil and water management and conservation, plant production, soil remediation, livestock development, land governance, and environmental protection. Graduate students and those wishing to conduct research in these topics will find the book a valuable resource.

The Editors

Sustainable Agricultural Development

Recent Approaches in Resources Management and  
Environmentally-Balanced Production Enhancement

Behnassi, M.; Shahid, S.A.; D'Silva, J. (Eds.)

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