

Preface

Gulf Research Centre Cambridge (GRCC) organizes the annual Gulf Research Meeting (GRM) which seeks to provide an academic environment to foster Gulf studies and promote scholarly exchanges among scholars working on/or having familiarity with the Gulf region. GRM identifies subjects of importance to the Gulf region, stimulates research in these subjects, and provides a forum for broad dissemination of the research results. Motivated by the same objectives underlying the Gulf Research Meeting, the GRCC also serves as a platform for other events throughout the year and provides a focal point for students dedicated to carrying out and promoting critical research related to the Gulf.

This volume is the outcome of an Agriculture Workshop held in Cambridge University, UK, during the Gulf Research Meeting 11–14 July 2012. The GRCC brought together 450 distinguished scientists and policy makers from 46 countries to participate in 19 workshops. The Agriculture Workshop “Environmental Cost and Changing Face of Agriculture in the Gulf States” was attended by participants from Australia, Bahrain, India, Kuwait, Oman, Saudi Arabia, Turkey, UAE, UK, and Morocco. The agriculture workshop was directed by Dr. Shabbir A. Shahid, Senior Scientist at International Center for Biosaline Agriculture (ICBA) Dubai, UAE, and co-directed by Dr. Mushtaque Ahmed from Sultan Qaboos University, Sultanate of Oman.

The main objective of the agriculture workshop was to bring together scientists, educators, researchers, policy makers and managers from around the world who somehow have been involved in agriculture sector in the Gulf States to share their experience to improve agriculture production to bridge the gap between local production and the food import. GRCC received an overwhelming response to the call for the papers. These papers were reviewed and those deemed appropriate to workshop theme were accepted.

The papers contained in this book were presented at the workshop, and passed through rigorous peer review by renowned scientists. The papers are diversified and present various aspects of agriculture production in the changing face of climate change and dwindling water resources in the region. The book covers topics such as, prospects of agriculture in a changing climate, potential of climate smart

agriculture, food security, improved water use efficiency, challenges in using treated wastewater, investment in foreign agriculture, and agricultural research and development.

At the conclusion of the agriculture workshop, following recommendations were made: (1) create “Gulf Agriculture Network for Knowledge Sharing and Technology Adoption” GANKSTA, (2) increase investment in research, development and extension in the agriculture sector, (3) adopt climate-smart technologies and practices in agricultural intensification for food security enhancement, (4) increase strategic groundwater reserve through recharge using reclaimed water, (5) invest in the use of reclaimed water in protected agriculture and enhance the social acceptance of this alternative by education and awareness campaigns, (6) educate consumers on the positive impacts of reducing meat-based food products in order to help reducing food imports; mitigating climate change and managing sustainably water resources, (7) adopt options for the Gulf States food security through the involvement of host countries small-holder farmers in the foreign land deals, (8) orient the Gulf investors either by lobbying or incentive to lease unutilized land within the framework of foreign land deals, (9) policy-makers need to be more fully cognizant of, and responsive to, the problems of current land deal strategies and the risks these create and the difficulties these strategies present in achieving reliable long-term food supplies, (10) policy-makers should research and establish alternative investment structures and mechanisms to achieve long term food security goals – such as reliable sources of staples from the agricultural sectors of less-developed countries, and (11) enhance and stimulate quality local food production and its competitiveness by adopting modern technologies such as soilless and hydroponic growing systems in order to maximize the market share for local products.

We wish to take this opportunity to express our sincere appreciation to the Gulf Research Centre Cambridge for hosting the Agriculture Workshop under the framework of GRM 2012 and for the publication of the book. Special thanks are due to all authors and co-authors and reviewers without whom this comprehensive book could not have been produced. We also owe our gratitude to Dr. Christian Koch, Director, Gulf Research Center Foundation (GRCF), Florian Weisweiler, Business Development Manager, GRCF, and Dr. Abdulaziz Sager, Chairman, Gulf Research Centre (GRC) for their professionalism and dedication to the entire GRM 2012 and special interest in the agriculture workshop. We are very optimistic that this book will be of interest to researchers, experts, and policy-makers in the field of agriculture.

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The Editors

Environmental Cost and Face of Agriculture in the Gulf
Cooperation Council Countries

Fostering Agriculture in the Context of Climate Change

Shahid, S.A.; Ahmed, M. (Eds.)

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