

Climate **CHANGE** *And* *Sustainable* **AGRICULTURE**



Edited By:
Dr. Anoop Badoni



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Climate Change and Sustainable Agriculture

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Dr. Anoop Badoni

Climate Change and Sustainable Agriculture

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PREFACE

Climate change is one of the major global challenges of the 21st Century; human impact on climate system is more explicit. Scientists, researchers and academicians have fully realized that the present pace of rising global temperature is a serious matter of concern and needs to be mitigated to save the living planet. It has many reasons to be concerned about the climate change. Indian agriculture being a gamble of monsoon is very sensitive and vulnerable to climate change and variability. It faces the dual challenge of teeming more than a billion people in changing climate and economic scenario. The major manifestations are realized in the form of crop failure, low yields and adversely affected lives and livelihood of people. Almost all our gains in the field of science and technology, industries, agriculture and means of transportation and communication had so far been realized at the cost of our health and environment. Climate change is one of the complex problems facing mankind today which is attributed to the burning of fossil fuels, deforestation and agri-business activities emitting Green House Gases in to the atmosphere and threatening to the ecological balance. We can very well notice the abnormal behavior of the seasons - the cycle developing clogs in its wheels; and the worried experts fear that the disturbed balance in the biosphere has assumed such a serious proportion that very soon our world would be wiped out. But it is heartening to find the entire world is aware of menace. Some of the advanced countries have already taken some measures to meet it, though the developing countries are still hesitant in their approach to mitigate and adapt in accordance with climate change it. If we fail to maintain the ecological balance at the moment, it would be too late tomorrow. Climate change addressing one of the burning issues of the globe, which is a centre of debate and discussions among the climatologists, earth scientists, geographers, geo-spatial researchers, social scientists, academicians, planners and administrators to find out plausible measures to mitigate and adapt in accordance with climate change and to orient the resilient path of development.

This book is compiled to provide the students and all the researchers the current information on climate change and sustainable agriculture. The editor does not claim this as his original research work; it is merely an outcome of the compilation of researches done by the researchers in different areas of climate change and agriculture in India. The language of the text is simple and at the end of every chapter references are given which will help the researchers to grasp the knowledge more.

The editor thanks to all the authors and researchers for his/ her contribution and valuable information provided for compilation and publication in the form of this book. There may remain some mistakes and some information may be lacking. So, I invite suggestions from the readers that may help to make the book more comprehensive.

Constructive suggestions, if any, are welcome.

- **Dr. Anoop Badoni**

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About the Editor

Dr. Anoop Badoni have done M.Sc.-Ag (2006) and Ph.D. (2010) in Seed Science and Technology with specialization of Seed Biotechnology having more than 10 years of Industrial, Research and Teaching experience in the field of Agriculture. He was awarded "Young Scientist" in Agricultural Sciences (2008) by Uttarakhand State Council for Science and Technology, DST, Govt. of Uttarakhand, "Award of Appreciation" (2008) by Jammu State Council for Science and Technology, DST, Govt. of Jammu, Best Paper Presentation Award (2018) in National Seminar organized by Himgiri Zee University, Dehradun, and "Best Research Paper Award" (2018) by Quantum University, Roorkee etc.. He served as Member –Academic Council for Quantum University, Roorkee and having Editorship of various National and International Journals. He have 57 publications in which 37 are the research papers published in various national and international Journals, 02 chapters in books, 02 Books, 02 News paper highlights and 14 abstract present and publish in various national and international conferences. In 2009 he got International Fellowship of Ministry of Science and Technology, China (FMSTC) for the training program at Supervision and Testing Centre for Virus Free Seed Potatoes Quality in Harbin, China.

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