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## FOREWORD

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### FOR THE ‘REGIONAL PROBLEMS’ SPECIAL ISSUE ON “CLIMATE CHANGE ADAPTATION AND MITIGATION: SUSTAINABLE AGRICULTURE AND HEALTH SECURITY”

International Workshop “Climate change adaptation and mitigation: sustainable agriculture and health security” was jointly organised by the Association of Academies and Societies of Sciences in Asia (AASSA), the Far Eastern Branch of the Russian Academy of Sciences (FEB RAS) and Institute for Complex Analysis of Regional Problems of the Far Eastern Branch of the Russian Academy of Sciences (ICARP FEB RAS), and supported by the InterAcademy Partnership (IAP). International Workshop was held in Birobidzhan from 1<sup>st</sup> to 5<sup>th</sup> October, 2018, with an ultimate goal to strengthen research and innovation activities in the field of climate change impact on human health, agriculture production and social security.

The United Nations’ 2030 Agenda for Sustainable Development targets global science community on achieving Sustainable Development Goals (SDGs) for the future well-being of the planet. In accordance with SDGs, the IAP Strategic Plan (2016 – 2018) addresses health, water and food security as critical development challenges, which require scientific and technological progress.

There is growing scientific consensus that climate change is happening, and will have serious consequences for human health. One aspect of the ongoing discussion and exploration of climate change is the increased mortality threat of climate change on the planet’s human population. As world population continues to grow along with change in global climate, a greater portion of humanity is threatened by a multitude of climate and weather phenomena. The near-term and medium-term is a time to promote adaptation measures that will reduce the damage to health caused by climate change, to which the world is already committed. The main goal is arising awareness of authorities, large and private households and the public about climate change issues, opportunities and ways of adaptation.

Climate change continually affects our capabilities to feed the increasing population. Agricultural production is extremely vulnerable to climate change impacts with serious potential consequences to society. Understanding how and to what extent climate change may affect agricultural productivity is of great significance for adapting to future climate change. The possible increases in extreme weather events caused by global warming, may pose an increasing risk to global crop production. Crop productivity may also be affected by other factors, such as the occurrence of pests and diseases, which are closely associated with climate change. Thus, the relative potential of adaptation strategies should be developed and evaluated for coping with climate risk.

To end poverty and hunger and make human life inclusive, safe, resilient and sustainable, it is essential to strengthen capacity for adaptation to climate change and mitigation management at all levels. Considering the present realities involving serious impact of extreme weather on environment, particularly on human health and agriculture, forecasts of future climate are required for effective decision-making, to provide social security and sustainable agriculture development, mitigating impacts or taking advantage of changed opportunities.

The AASSA – FEB RAS International Workshop is aimed to (1) cut across the different disciplines of science to present the best practices into key societal challenges including food and nutrition security, health and wellbeing, sustainable growth, (2) involve scientists and experts to collaborate with for the development of reliable as well as economically and environmentally sustainable approaches for adaptation to and mitigation of climate change.

The main topics under discussion are as follows:

- Climate Change and Human Health
- Climate Change and Sustainable Agriculture
- Climate Change: Challenges for Agricultural Environment
- Climate change: Challenges for Food and Social Security

Each Session began with an initial lecture presented by international well known experts. They gave to the participants an important update on the “state of the art” in the different fields of climate human health and agriculture.

A selection of full papers and abstracts from International Workshop is included in Special Issue of “Regional Problems”. This is the first printed in scientific journal reference of AASSA regional activities. With that, the publication of this Special Issue highlights the visibility of AASSA in regional and national scientific and social development. Moreover, the publication is coincident with UN foregrounds, focusing research resources on priority issues of sustainable development goals, facing real and potential impacts of climate and weather variability on human society.

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on behalf of  
International Workshop National Organizing Committee  
and  
Editorial Board of Scientific Journal “Regional Problems”.