International Conference on 21st Century

Challenges to Sustainable Agri-Food Systems

Biotechnology, Environment, Nutrition, Trade and Policy

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Preface

Green Revolution is one of the most remarkable achievements in the path of agricultural development unparalleled anywhere in the world. Bringing food security for a nation, with second largest population in the world brought the adoption of new technologies by the farmers including new seed varieties, use of commercial fertilizers and pesticides, mechanization of farm operations, and better water management systems. This allowed farmers to improve their incomes, thereby, uplifting the masses who were below poverty line. With the passage of time, farmers are now facing second generation problems of the 21st century, especially decreasing supplies of water and increasing costs of other inputs including energy. In addition, the farming community is also facing new challenges of nutrition, human health, economic security on the one hand and sustainable environment on the other hand. What we witness now are the islands of environmentally degraded patches of land with decelerating productivity of crops and essentially threatening sustainability of Indian agriculture. The researchers and society have been mute witnesses to farmers’ response to subsidies inter alia for agrochemicals, irrigation water, and electrical power. Further, exposure to the dynamics of rapidly expanding world trade coupled with policies of liberalization imposed hidden transaction costs on the farming community and further reducing their annual incomes. But the increasing growth of the ‘middle class’, with relatively high disposable incomes, is shifting human diets to more nutritious and value added food products and is opening up management of agricultural products through value chains.

The key challenge to India’s agriculture in the 21st century in the wake of open global economy is in designing, developing and managing agricultural systems that enable farmers to be efficient, equitable and sustainable in the bio-economic, bio-physical and socio-cultural environments. This challenge is both intellectual and empirical in content, demanding significant changes in our teaching curricula, research, extension, physical and social capital to unfurl farmers’ capacity to meet the challenges. This International Conference on 21st Century Challenges to Sustainable Agri-systems is a modest attempt aimed at discussing and deliberating on the key issues of sustainable agriculture by promoting efficiency, equity and better management of natural resources. In the process, the conference will mesh world-class leaders in agricultural education, research, policy, agri-business, and development in addressing the challenges confronting farmers. The output of the conference would be a valuable addition in bringing improvements in education, research, extension and government policy. This conference aims to provide a wonderful opportunity for young researchers to have productive interaction with international researchers, social scientists, and policy makers through lead papers, contributory papers, and poster presentations on the following broad themes:

- Natural Resource Management in Sustainable Agriculture
- Technological Advancements
- Economics, Extension, Policies and Trade
Towards this endeavor, the Department of Agricultural Economics, Department of Agricultural Marketing and Co-operation at the University of Agricultural Sciences, Bangalore, and the Agricultural Development and Rural Transformation Center of the Institute for Social and Economic Change, Bangalore along with Iowa State University and Purdue University of the USA have brought various stakeholders of the Conference together to discuss complex issues of sustainable agricultural development with sustainable management of natural resources. More than 100 poster and oral papers that will be presented at this conference have been published in the conference proceedings.

Editors
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