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Pathways for Enhancing Farmers' Income, Nutritional Security and Sustainable Food Systems

Thematic Session: CLIMATE CHANGE AND RISK MANAGEMENT

Discussion Paper: Managing Climatic Risks in Agriculture

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Abstract: Climate change and associated increase in climatic variability is projected to increase risks to our food security. Climate-Smart Agriculture (CSA), which includes several technological, institutional and policy interventions, can help us increase production and adapt to climate change with significant greenhouse gases (GHG) mitigation co-benefits. Several policy and institutional initiatives in the past have promoted greater adoption of CSA practices and technologies, which have helped reduce the impact of rainfall deficit on an aggregate scale. There is a need to invest in developing a better understanding of the adoption domains of CSA interventions, their linkages with demand and supply of food, and appropriate 'business models' to scale them out. Climate-Smart Village approach is one such strategy to facilitate this. Increased focus on new digital and genetic technologies, improved early warning systems of weather and production risks, redesigned agricultural insurance programme, replacement foods, and circular economy for comprehensive resource utilisation could further transform resilience of agricultural systems.

Keywords: climate change, Climate-Smart Agriculture, digital technologies, early warning systems, agricultural insurance

The full text of the paper is available on the NITI Aayog website or you may contact FAO at fao-in@fao.org for a soft copy. Your feedback is welcome; you may send your comments on the discussion paper to FAO at the above email id.