Institutional Innovation in Climate Smart Agriculture

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Indian agriculture is highly dependent upon weather since more than 60% of the cropping area is rain-fed. A recent IFPRI-CCAFS study has forecasted that India could lose 10-40% of its current crop production by the end of century due to global warming. The report estimated that 10% drought will increase the prices of rice by 23%.

A long-term strategy needs to be implemented which would prepare farmers to adapt and respond appropriately to climate change, and effectively overcome the consequences. Climate-Smart Agriculture, which sustainably increases agricultural productivity and ensures achievement of national food security goals, provides a window of opportunity to avert the impacts of climate change. This can be facilitated through Public Private Partnership or by efficient co-operative mechanisms. Co-operatives have been a crucial factor in consolidating the agriculture sector in the country. The co-operatives cover almost all rural parts in India. Co-operatives are effective instruments to establish any scalable model for agricultural development. The paper proposes a sustainable business model to implement Climate Smart Agriculture by involving Financial Institutions and Co-operatives. Climate Smart Agriculture requires expensive farm machineries & infrastructure that may not be affordable for small & marginal farmers. So, there is a need of financial ecosystem for co-operatives to construct Custom Hiring Centre from where farmers can afford machineries on rental basis.

Co-operatives can play role of direct intermediary between farmers and consumers. They can procure the produces directly from farm gate and trade directly to retail consumer. Financial Institutions can deliver advisory services for marketing & branding of the products as well as offer credit for construction of warehouses, primary processing, and transport & logistics facilities.

This paper analyses how a sustainable business model can be effectively implemented towards workable Climate Smart Agriculture Practices.

Keywords: Climate Change, Agriculture, Cooperatives, Adaptation, Mitigation, Climate Smart Agriculture, Business Sustainability