

Wheat Cluster Farming Approach: Challenges and Prospects for Smallholder Farmers in Ethiopia

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Abstract : Climate change is already having a severe influence on agriculture, affecting crop yields, the nutritional content of main grains, and livestock productivity. Significant adaptation investments will be necessary to sustain existing yields and enhance production and food quality to fulfill demand. Climate-smart agriculture (CSA) provides numerous potentials in this regard, combining a focus on enhancing agricultural output and incomes while also strengthening resilience and responding to climate change. To improve agriculture production and productivity, the Ethiopian government has adopted and implemented a series of strategies, including the recent agricultural cluster farming that is practiced as an effort to change, improve, and transform subsistence farming to modern, productive, market-oriented, and climate-smart approach through farmers production cluster. Besides, greater attention and focus have been given to wheat production and productivity by the government, and wheat is the major crop grown in cluster farming. Therefore, the objective of this assessment was to examine various opportunities and challenges farmers face in a cluster farming system. A qualitative research approach was used to generate primary and secondary data. Respondents were chosen using the purposeful sampling technique. Accordingly, experts from the Federal Ministry of Agriculture, the Ethiopian Agricultural Transformation Institute, the Ethiopian Agricultural Research Institute, and the Ethiopian Environment Protection Authority were interviewed. The assessment result revealed that farming in clusters is an economically viable technique for sustaining small, resource-limited, and socially disadvantaged farmers' agricultural businesses. The method assists farmers in consolidating their products and delivering them in bulk to save on transportation costs while increasing income. Smallholders' negotiating power has improved as a result of cluster membership, as has knowledge and information spillover. The key challenges, on the other hand, were identified as a lack of timely provision of modern inputs, insufficient access to credit services, conflict of interest in crop selection, and a lack of output market for agro-processing firms. Furthermore, farmers in the cluster farming approach grow wheat year after year without crop rotation or diversification techniques. Mono-cropping has disadvantages because it raises the likelihood of disease and insect outbreaks. This practice may result in long-term consequences, including soil degradation, reduced biodiversity, and economic risk for farmers. Therefore, the government must devote more resources to addressing the issue of environmental sustainability. Farmers' access to complementary services that promote production and marketing efficiencies through infrastructure and institutional services has to be improved. In general, the assessment begins with some hint that leads to a deeper study into the efficiency of the strategy implementation, upholding existing policy, and scaling up good practices in a sustainable and environmentally viable manner.

Keywords : cluster farming, smallholder farmers, wheat, challenges, opportunities

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