Characteristics of agriculture technology and application of an agricultural innovation system in Tanzania

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Abstract
The globalisation of the world economy and advancements in science, including the use of biotechnology for agricultural production has subjected agricultural technologies to market forces for their generation and dissemination. It is evident, however, that while some technologies are more amenable to commercialisation, there are other technologies that may still need strong participation of public institutions for their generation and dissemination. This study analysed a total of 87 agricultural technologies in crop, food, and soil thematic areas with respect to the extent of incorporation of innovation systems in the process of technology development, multiplication and commercialisation. Each of the technologies was assessed in terms of its characteristics, actors involved and their roles at each stage of innovation. The study found that the economic features and multiple dimensional characteristics of agricultural technologies determine actors involved in the development and dissemination of the technologies through commercialisation. While 40% of the technologies were commercialised by business enterprises, 60% needed intermediation interventions. Features of agricultural innovation system have been incorporated particularly under 'projects' implemented by R&D or NGOs, which is an indication that the coverage and sustainability is subjective. Thus, government interventions in promoting agricultural innovations should focus on both operations and policy issues for effective incorporation of innovation system.

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Innovations,
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