The application of the agricultural innovation system approach in technology development in Tanzania: researchers' perceptions and practices

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Abstract
This paper examines the perceptions of researchers towards features of the innovation system approach. It also examines the extent of incorporation of these features into Tanzania's existing National Agricultural Research System (NARS). Both qualitative and quantitative data were collected from 100 purposefully selected researchers from 13 public and three private research institutes, and one university. Most (81%) of the researchers perceive end-users (farmers) as an important actor. Other actors such as intermediary organisations (extension), regulatory bodies and entrepreneurs are perceived as important by half (50%) of the researchers. On the other hand, most of the researchers perceive the roles of these actors to be similar to the traditional roles of actors under NARS. The indicators used in measuring the success of agricultural innovation were mainly associated with the pattern of adoption and productivity potential of technologies, suggesting that a linear model of innovation is still dominant in NARS. We conclude that the mode of agricultural innovation under NARS in Tanzania is in transition from a linear to a system model of innovation. The study suggested that policies should be redesigned to include wider participation of stakeholders in agricultural innovation; the mandate and capacity of extension services should be expanded to include facilitation of innovation; and indicators of monitoring and evaluation should be all-inclusive to include technical and social changes.

Keywords:
Linear mode of innovation,
System mode of innovation,
Entrepreneurs,
Intermediaries,
End-users,
Indicators of successful innovation