

Annual Interdisciplinary Conference on Research in Tropical and Subtropical Agriculture, Natural Resource Management and Rural Development: "Global Food Security and Food Safety: The Role of Universities"

Exploring the Power of Innovative Learning with Farmers for Sustainable & Remunerable Agriculture

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What's about

New and emerging technologies may have the potential to tremendously improve the future of crop and livestock production in developing countries. However, harnessing the potential of such technologies for food security requires investments in research and development, human capital, infrastructure and knowledge flows.

HORIZONT3000 has been implementing Enabling Rural Innovation in East Africa (ERI EA) for a couple of years, a regional rural development project that works through capacity building, knowledge management and strategic partnerships to benefit rural farmers and their communities to enhance and balance their food sovereignty, income security, and sustainable natural resource management.

The Enabling Rural Innovation (ERI) approach developed in East Africa by the International Center for Tropical Agriculture (CIAT) overcomes the linear, top-down mode of technology development and market access in agriculture.

Results

1. Farmer groups that trained together with students have tremendously improved their natural resource management practices, e.g. they now know how to use the mobile soil test kit developed by Makerere University in assessment of soil physical and chemical status and therefore which amendments to be made.

2. Through making appropriate soil amendment practices based on soil test results and application of proper agro ecological health principles, average seasonal tonnage harvests for annual crops, especially cereals and legumes have more than doubled.

3. As a result of improved harvests, trade volumes have also increased, leading to improvement in the social wellbeing of farming families since they earn more income from collective marketing.

4. Farmer Facilitators of the ERI EA project are earning an extra income by carrying out soil testing services for other community

Methodology

This interactive knowledge sharing process occurred in 2016 and 2017 where HORIZONT3000 partnered with Makerere University, Uganda Martyrs University, Sokoine University of Agriculture Tanzania, University of Nairobi-Kenya and Bahir Dar University Ethiopia under the International Training on Organic Agriculture (ITCOA) and trained two separate sets of 40 students.

Through presentations and field practicals together with farmers in Uganda, students learnt about the ERI approach by applying its five key modules of: Participatory Diagnosis, Participatory Market Research, Farmer Participatory Research, Enterprise Development, and Participatory Monitoring & Evaluation. On the other hand, students shared practical knowledge of agro ecosystem health assessment and methodologies (AESH) of on-farm physical and chemical soil testing for sustainable food production with farmer groups and field extension staff in Rakai and Tororo districts. members who are not part of the farmer groups.

5. Knowledge obtained from agro ecosystem health assessment has helped farmers to established simple vegetable gardens (commonly known as kitchen gardens) that contribute greatly to food security especially, during prolonged droughts and off season time since these can be easily irrigated using domestically harvested/obtained water.

he Enabling Rural Innovation (ERI) framework

Participatory Diagnosis

Participatory Market Research

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Farmer Particinatory Research

Conclusion

For the last two years, a total of 4,005 small scale farmers in Rakai and Tororo districts organised in 144 farmer groups have benefited from this knowledge sharing exchange program with students from the five universities. We have also noticed flow of knowledge to neighboring communities e.g. use of mobile soil test kits. Therefore, empowering farmers with relevant application knowledge through university cooperation will be the best way to tackle the big challenge of food security and nutrition in the 21. century.

