



Farmer Research Network: Multi-purpose Legume 2012-2016

"The success that the group has gained is that we have made the group to know the importance of being together because when you are alone you cannot get any information from the outside."

Joseph Torus, Chairman of the Kiptoruswo self-help group
see: <https://www.youtube.com/watch?v=6TbFgPNRbK0>

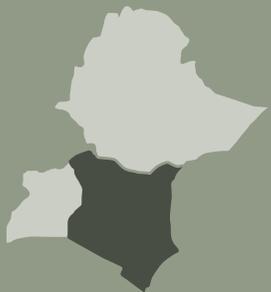
Farmers can derive and understand principles and learning which would not be possible by working alone or receiving extension

Farmer exchange visits were conducted in August 2015 to provide opportunity for **peer-to-peer learning** and sharing of experiences. Two farmer groups involved in community-based grain legume **seed production** from Vihiga visited various farmer groups in Nandi as part of farmer research network (FRN) activities. The activities they engaged in included i) **discussing** legume seed production, particularly of bean, soybean, groundnut, and lablab, ii) **observing** the performance of new varieties of beans, iii) discussing with Nandi farmers Striga weed management by legumes and other challenges that legumes can address, and iv) observing the effect liming the soil on legume growth and productivity. This exchange visit offered an important platform for learning and exchange of ideas between farmers from different environments and should become a regular feature of FRN activities within this project.

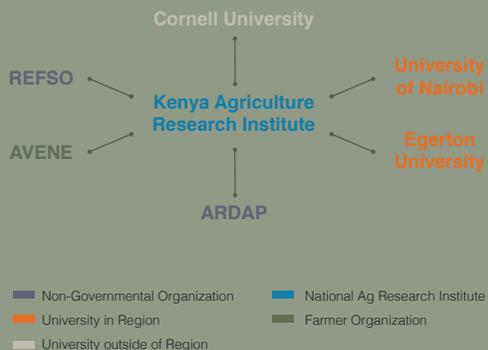
Analysis of larger datasets provides better understanding of principles and Options x contexts

Introduced **legumes** -- groundnut, soybean and lablab-- were grown by smallholder farmers in **rotation with maize**: legumes in the short **rainy season** and maize in the long dry season of 2015. **Striga suppression of the legumes ranged from 40% to 57%**. Compared to the normal practice of maize rotated with beans, the new legumes **increased the yield of maize** by up to 3.5 t/ha.

East Africa Community of Practice



Project Partners



Cross-sectoral collaborations and convenings, with emphasis on farmer participation

- 57 farmers participated in project **inception workshop**
- Discussed **multiple roles** of legumes in local farming systems
 - **Demonstrations** of food made from new legumes
 - **Everyone deliberated** on project aims, objectives and roles
 - **Farmers chose** the legumes that they wanted to try on their own farm.

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Leveraging scientific principles

Legumes increase Nitrogen, provide protein, and suppress striga.

Farmer-researcher co-creation

Value heterogeneity: build on & enhance diversity

Include multi-dimensional outcomes

Large, networked datasets that reveal useful patterns of performance

- **Groundnut, soybean and lablab** showed greatest potential for legume integration.
- Groundnut performed best based on yield, pest and disease **tolerance, income generation and soil fertility** improvement.
- Lablab had the highest **fodder** value and positive yield on subsequent crops



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