

# FOOD AND BUSINESS APPLIED RESEARCH FUND

## Farmer-led Agroforestry Innovation in Ethiopia: Improving livelihoods and food security

### by utilising *Acacia saligna*

#### CONSORTIUM MEMBERS



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#### ACTIVITIES AND RESULTS

- Conducted launching workshop, with a broad range of stakeholders, farmers and extension workers.
- Integrated *A. saligna* agroforestry systems of smallholder farmers are in place for testing and optimizing production.
- Selection of breeds and establishment of nursery in order to establish a best provenance resource stand for various purposes.
- On-farm agroforestry trials were visited and discussions held with Farmers Research Extension Groups (FREGs).
- Preparing surveys to better understand value of *A. saligna* for smallholders.
- Conduct literature review of the benefits and management requirements of *A. saligna* for different agroforestry systems.



A potential of *A. saligna* seed for poultry feed formulation

#### PROJECT DESCRIPTION

##### AIM AND OBJECTIVES

- Research results to enhance landscape restoration and sustainable natural resource management, leading to better food security and economic growth.
- Evaluate the adaptability, biomass production, silvicultural management and multi-purpose function of *A. saligna*.
- Identify improved types of *A. saligna* suitable for multipurpose use (biomass, fodder, green manure, wood, and seed) and for poles /wood production.
- Study and formulate optimal supplementary feed for poultry/ruminants from *A. saligna* dried leaves or seeds.
- Conduct Value Chain analysis, utilization and scaling out of best practices.

##### METHODS

- Work with and through FREGs to ensure the relevance of research, give inputs into the research agenda and keep scientists accountable for issues that benefit farmers.
- Knowledge flows to and between farmers and researchers by using participatory research, which fosters deep collaboration and partnership between FREGs and researchers.
- Trial sites at Tigray Agricultural Research Institute (TARI) for seed production, and to serve as visual cues during field days.
- Feed trials due to commence in January 2017.



*A. saligna* nursery site for seedling production

#### OPPORTUNITIES AND CHALLENGES

##### OPPORTUNITIES

- *A. saligna* is increasingly being recognized as a suitable multipurpose species capable of restoring degraded landscapes and intensifying agricultural production.
- *A. saligna* can increase crop and livestock productivity, as demonstrated by farmers groups during recent drought.
- Provide resources which can be sustainably harvested for fuel, poles, feed supplements.
- Community can potentially improve their income through bee keeping, poultry production and fattening through the use of *Acacia* agroforestry.
- Pollen production takes place twice per year and ensure bees may continue to forage and sustain bee colonies during dry season.
- Support Nitrogen fixation and organic matter to restore soil health, and contribute towards land restoration efforts.

##### CHALLENGES

- The limited release of funds and cash flow in years 1, 2 and 3 (20%, 30%, 50%) may cause serious problems for key activities that require significant funds. While the project leadership needs 30% - 50% - 20% fund release for 2016 -18. Thus the activity should be given the highest level of priority.



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