



## FACT SHEET

### **Project: Promotion and Intensification of Fruit Trees in Agricultural Farm Lands for Mitigation and Adaption to Climate Change**

Theme for this Strategic Intervention: Introduction and promotion of innovations that will help reduce carbon emissions from productive activities.

#### **Team members:**

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#### **Project description**

The main objective of this strategic intervention is to reduce the impacts of climate change and land degradation on rural farm lands by intensifying the production of fruit trees. This will generate income and help farmers adapt to climate change.

Most farmland areas are devoid of plantations and natural vegetation forests making them susceptible to the impacts of climate change. These areas could experience more soil erosion because of the reduced rainfall and the increase in temperature. The introduction of fruit trees on the farmland or near the households could create a greener environment in these areas. Fruit trees will also increase carbon storage and household income.

#### **Description of the research**

This project is addressing the following specific objectives:

1. Identification of the most vulnerable farmlands and farming community focus groups for implementation of strategic fruit tree establishment;
2. Distribution of different improved fruit tree seedlings for planting during the rainy seasons to ensure successful plant establishment;
3. Establishment of fruit tree nurseries in highlands and lowland areas for adaptation of fruit tree species to local growing conditions;
4. Training farmer groups in nursery management and establishment of fruit tree orchards.

Implementing these specific objectives will provide outputs that are in agreement with REDD initiatives.

The project will deliver the following outputs:

1. Increased the number and type of fruit trees under cultivation with better management in rural farming communities;

2. Reduced impacts of climate change as a result of increased vegetation cover in the form of fruit trees;
3. Improved local ecosystem, enhanced permanent land cover with diverse of fruit trees and efficient use of soil and water under climate change scenarios;
4. Increased awareness and investment in fruit tree planting and climate information among farmers in different rural communities as a strategy for climate change adaptation and as a source for income generation;
5. Increased income through sale of fruits and other fruit tree products by small scale farmers;
6. Increased carbon sinks for carbon storage and sequestration from fruit trees on farms;
7. Enhanced resilience and adaptation to climate change as a result of improved microclimate modulation from the fruit trees.

### **Preliminary results**

One nursery for fruit trees was established at Msingisi Gairo with avocado and citrus seedlings. A Mother scion stock garden (source for scion supply) was established at Msingisi Gairo but it was facing challenges because goats were browsing among the seedlings. About thirty farmers trained in nursery management and grafting avocado and 71 farmers trained in fruit tree establishment and planting and managing grafted plants in the field were involved in planting and pruning suckers. This year (2013) a total of 3,452 avocado seedlings were planted in the nursery. 230 citrus orange and 200 rootstocks from lemon were planted in the nursery for budding. Temperate fruit trees were not distributed because they may not be able to survive the high temperatures in the target area.

Currently, there are 270 avocado plants available and only 181 orange seedlings in the three villages in Masenge. In Mlimani there are 200 mango, 105 avocado and 110 citrus seedlings in the identified households. To increase the number of fruit trees per household, 3,220 avocado seedlings were grafted and by the end of October 2012, 3,037 were successful grafts. These seedlings will be distributed to farmers for planting this season in 2013 currently have been distributed in February/march 2013 rain season. There is a very high demand for these fruit trees; as a result some farmers are stealing from others by uprooting seedlings in the orchards.

A booklet was also produced on awareness and planting of fruit trees for adaptation and mitigation of climate change in Kiswahili: *Miti ya matunda kwa hifadhi ya mazingira na stahimili ya mabadiliko ya tabia nchi - CCIAM Programme- Chuo Kikuu Cha Kilimo Cha Sokoine.*

### **Preliminary recommendations**

Due to the positive response and the level of adoption, this strategic intervention project is expected to expand to more villages in other regions of the country where there is land degradation caused by agricultural crop farming. Some of the potential areas where this model could be effective include: Same, Shinyanga, Tabora, Babati and Dodoma. Fruit tree planting is currently very well accepted and appreciated by most farmers in the three projects' village communities (the three project areas are the villages Msingisi for multiplication of seedlings, 2. Masenge willages for actual distribution of the fruit tree seedlings, 3 Mlimani villages around Towero in Uluguru mountains). The project has thusfar been successful and could be expanded i.e. outscaling the interventions to other regions or areas in Tanzania like Shinyanga and Tabora and areas in Kilosa districts where land has been degraded by agriculture and livestock pressure.

The scaled up model will focus on establishing fruit tree nurseries where water points are available. It will also train and encourage farmers to participate in fruit tree propagation. There is a need to discuss and negotiate with the local government in communities about the possibility of having model nurseries for fruit trees. Providing more training for farmers and spreading grafting and budding technology, along with a whole range of nursery techniques, is envisioned to enhance the sustainability of project outputs. Trainings and nursery establishment is likely to improve entrepreneurship capacity for local farmers, especially youth and women groups who can engage in fruit tree nursery enterprises. The demand for fruit trees in Tanzania is evident.

For further information about this project, please contact:

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