



# CARROT CACHE

## SEMI ANNUAL REPORT

### STRENGTHENING COMMUNITY SEED RESOURCES IN WESTERN AFRICA

Gambia and Senegal Report

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*Submitted by*

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## BACKGROUND

This project aims to strengthen vegetable and fruit tree seed resources in ten communities in Senegal and The Gambia by promoting the cultivation of fruit trees and vegetable varieties using ecological techniques and building capacity for preserving, testing, multiplying and disseminating improved varieties within and between communities. This project will significantly enhance community seed development efforts by working in partnership with communities in both seed propagation and distribution. Capacity building will also occur through an educational component on ecological production and seed-saving techniques. The project aims to reduce food insecurity, improve livelihoods and empower women by transferring resources and knowledge into the communities through local channels. The expected outcomes include:

- ✓ Improved access by rural farmers to improved fruit and vegetable plant materials
- ✓ Improved nutrition and dietary diversity in these communities
- ✓ Increased income for women involved in the vegetable production
- ✓ Enhanced capacity of farmers to breed, multiply, and save seeds

## PROJECT OUTCOMES

The project aims to source, propagate and multiple locally available and traditional varieties of fruit trees and vegetables. Community seed needs will be regularly assessed using participatory methods. Using participatory methods, the project has identified locally appropriate and appreciated varieties that will meet the specific needs of each project community. Progress has been made in the following key areas:

### Seed Propagation

Improved seeds were sourced from regional centers within The Gambia, including local markets or *lumos*. The project nursery was established in February 2013 in the project village Njau. The nursery is the primary center for testing and multiplication of fruit tree varieties.

NJAU NURSERY INVENTORY	
SEED SPECIES	QUANTITY
CASHEW	1181
PAPAYA (PAWPAW)	88
LIME	2
MORINGA	45
LEUCAENA	60
MANGO	88
DANGHA	7
<b>GRAND TOTAL</b>	<b>1471</b>



Figure 1: Cashew Seedlings at the Njau Nursery

**Community Action Plans:** Each community action plan (CAP) ranked tree varieties by preference, including differentiated lists for backyard fruit trees and community woodlots. These rankings will be updated on a regular basis in order to accurately reflect changes in community preferences as the project progresses. It is likely that community understanding of agro-ecological issues will evolve with the farmer to farmer training program. Regular community level meetings will ensure that project activities continue to accurately reflect community needs, challenges and priorities.

### Fruit Tree Rankings (All Project Villages)

Ranking	Species
1	Mango
2	Cashew
3	Oranges
4	Lime
5	Sisop
6	Guava
7	Banana

A complete inventory of all trees currently located within each Gambian village was completed in April 2013 to provide a comprehensive overview of current tree resources, as well as an indication of previous forestry efforts and environmental variations between communities.



Figure 2: Cashew Trees at Njau Lower Basic School

### Woodlot Tree Rankings (All Project Villages)

Ranking	Species	Community Reasoning
1	Eucalyptus	Salt tolerance species for flooded or riverside areas; Provides sustainable building materials and can generate income
2	Acacia Albeida	Communities generally aware of benefits to soil fertility
3	Moringa	Consumption and nutrition
4	Rhun Palm	Roofing materials; Locally abundant and high survival rate
5	Mahogany	Long term investment; Income from eventual harvest

CAPs will act as a guiding framework for second year tree planting activities, including the coordination of 2014 nursery activities. Desired seedling varieties that are not currently available within the Njau nursery will be planted in early 2014. CAPs will furthermore address the logistical concerns of transplanting, maintenance and monitoring. This is particularly imperative for community woodlots which require arrangements for protective fences, designated land and community management strategies, including plans for the sustainable harvest of any woodlot resources.

*Fruit trees and other perennial crops have a huge impact on nutrition and food security. They are vitally important during the "hunger season."*

**Risk Management:** Community level risks to tree survival include salt intrusion, bush fires, severe erosion, termites and the cutting down of trees for fuel or building materials. Regular meetings with the beneficiaries ensure these threats are adequately and promptly addressed. Lessons learned from the first year of seed procurement will be applied to upcoming activities. For example, challenges were encountered in nursing *Acacia Albeida* seedlings. Renewed efforts will be made in 2014 to adjust seed procurement and nursing techniques, along with the production of other varieties prioritized by the communities.

**Community Vegetable Gardens:** Across all communities, women participants became animated and excited during discussion of community vegetable gardens. Dry season vegetable gardening represents a lucrative income generating opportunity for women, in addition to an important supplement to household nutrition. A Socio-Economic Survey (SES) conducted in May 2013 established an overview of vegetables

currently produced by beneficiaries including sorrel, tomato, bitter tomato, okra, eggplant, onion, chilies, green pepper, lettuce, cabbage carrot, radish, squash and benne. Upcoming CAPs will establish the requirements for vegetable gardens in each community including seed, fencing and water resources. Possible garden sites have been identified in several project villages.

Currently in Senegal, CLCOP’s nurseryman Meissa Diop is preparing cashew seedlings for distribution in August this year. CLCOP will program technical training sessions in fruit production and processing for the beneficiary farmers.

WACK NGOUNA NURSERY INVENTORY	
SEED SPECIES	QUANTITY
CASHEW	3446
PAPAYA (PAWPAW)	343
MORINGA	128
MANGO	504
MALEYNA	147
<b>GRAND TOTAL</b>	<b>4774</b>



Figure 3: CLCOP Nursery in Wack Nagouna

**Community Partnerships:** Without adequate protection of seedlings, the survival rate of tree seedlings can be seriously jeopardized. Protection measures must both address physical fencing and the motivational interest of caretakers to water seedlings diligently. To ensure proper care and follow-up of planted trees in the project villages, since May 2013, CLCOP has been working with an officer from the Department of Water and Forests at Wack Ngouna, a public agency in Senegal.

Each community has designated a nursery plot which will be properly secured with fencing and equipped with access to water. The community nursery plots will allow continuous seedling production at the village level, which will strengthen reforested efforts even after the end of the project.



## Ecological Farmer Training

Ecological farmer trainings will be implemented to complement community seed management plans, including techniques for collection, storage and selection. Farmer trainers have been identified within each community and have received introductory trainings on agro-ecological farming techniques. As vegetable and fruit tree materials are distributed, complementary farmer to farmer trainings will be coordinated within the communities. As trainings progress, farmers will enhance their knowledge and techniques around seed saving and propagation, as well as ecological vegetable production methods.



**Figure 4: Farmer Trainer Madi Ceesay intercropping field crops with rhun plam in Batti Yongo, the Gambia.**



**Figure 5: Training on Agro-Ecological principles and practices in Njau, the Gambia**

Agro-ecological training modules include food security through dry season vegetable gardening; seed conservation, plant material propagation and multiplication; agro-forestry and community nursery management; and plant improvement and farmer-led breeding. As it is currently the growing season in The Gambia, the upcoming training schedule will reflect wet season activities whereas the majority of trainings will be concentrated between December and May when farmers have more available time.

## Distribution of Plant Materials

Active learning farms have been established in all project communities on a volunteer basis by farmer trainers and community members. Fruit trees and vegetable varieties will be established in accordance to specific community priorities and environments. Transplanting activities will commence at the peak of the wet season in August. Community planning and preparation of dry season vegetable gardens will also take over the following months to ensure gardens are promptly established following the harvest period.



**Figure 4: Community Organizer Kadiatou Jallow Documenting Learning Farms in Batti Yongo, the Gambia**

*REAP Canada and their local partners would like to thank the Carrot Cache for their continued support to the farmers of the Gambia and Senegal.*