



**CCBA Monitoring Report
for
TIST Program in Uganda
CCB-001**

**for verification under
The Climate, Community and Biodiversity Standard
Second Edition**

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CCBA Monitoring Report for TIST Program in Uganda

Project Overview

The International Small Group and Tree Planting Program (TIST) empowers Small Groups of subsistence farmers in India, Uganda, Tanzania and Uganda to combat the devastating effects of deforestation, poverty and drought. Combining sustainable development with carbon sequestration, TIST already supports the reforestation and biodiversity efforts of over 65,000 subsistence farmers. Carbon credit sales generate participant income and provide project funding to address agricultural, HIV/AIDS, nutritional and fuel challenges. As TIST expands to more groups and more areas, it ensures more trees, more biodiversity, more climate change benefit and more income for more people.

Since its inception in 1999, TIST participants organized into over 9,000 TIST Small Groups have planted over 11 million trees on their own and community lands. GhG sequestration is creating a potential long-term income stream and developing sustainable environments and livelihoods. TIST in Uganda began in 2004 and has grown to nearly 52,000 TIST participants in over 7,000 Small Groups.

As a grass roots initiative, Small Groups are provided a structural network of training and communications that allows them to build on their own internal strengths and develop best practices. Small Groups benefit from a new income source; the sale of carbon credits that result from the sequestration of carbon from the atmosphere in the biomass of the trees and soil. These credits are expected to be approved under the Voluntary Carbon Standard and/or CDM and, because they are tied to tree growth, will be sustainable. The carbon credits create a new ‘virtual’ cash crop for the participants who gain all the direct benefits of growing trees and also receive quarterly cash stipends based on the GhG benefits created by their efforts. The maturing trees and conservation farming will provide additional sustainable benefits that far exceed the carbon payments. These include improved crop yield, improved environment, and marketable commodities such as fruits, nuts, and honey. TIST utilizes a high-tech approach to quantify the benefits and report the results in a method transparent to the whole world, which includes palm computers, GPS, and a dynamic “real time” internet based database.

This project description is for a subset of the TIST Uganda program and corresponds to TIST VCS project descriptions VCS-001, VCS-002, VCS-003 and VCS-004. It applies to 456 Small Groups, 2,932 members, 1,645 project areas and 1,487.5 ha.

General

TIST has met the challenge of obtaining accurate information from a multitude of small discrete project areas in remote areas, where roads are poor and infrastructure is minimal, by combining high-tech equipment and low-tech transportation within its administrative structure. The TIST Data System is an integrated monitoring and evaluation system currently deployed in Uganda and TIST projects around the globe. On the front end is a handheld computer-based platform supported by GPS technology that is utilized by field personnel (quantifiers, auditors, trainers and host country staff) to collect project information. This includes data relating to registration, accounting, tree planting, baseline data, conservation farming, stoves, GPS plots, and photographs. The data is transferred to TIST's main database server via the internet and a synchronization process where it is incorporated with historical project data. The server provides information about each tree grove on a publicly available website, www.tist.org. In addition, the other data is available to TIST staff through a password-protected portal.

The handheld computers have been programmed with a series of custom databases that can temporarily store GPS data, photographs, and project data. The interface is designed to be a simple to use, checklist format, that insures collection of all of the necessary data. It is simple enough for those unskilled in computers and high tech equipment to be able to operate after a short period of training. The interface can also be programmed for data collection not specific to the project. The handhelds are "off the shelf," keeping their costs relatively low.

The synchronization process takes place using a computer internet connection. While office computers are used where available, field personnel commonly use cyber cafes, reducing travel time and improving data flow. Where available, cell phones using GPRS technology are now allowing synchronization from remote tree groves and project areas, providing near real-time data.

The TIST Data Server consists of a public side, accessible by anyone over the internet and a private side only accessible through a password-protected portal. On the public side, a dynamic database is used to constantly update the displayed data. Changes can be seen daily as new synchronizations come in. By mapping the project data with photos and GPS data, the results of each Small Group can be seen on a single page. The GPS data has been programmed with Google Maps to locate project activities anywhere in the world on satellite imagery.

On the private side, confidential accounting data, archive data and data not currently displayed is available. This is the source data for the custom reports and tables necessary for project managers. It is also the source of much of the data used in the CCB monitoring reports.

The TIST database is off-site and has an off-site backup. The information collected and used for this monitoring program will be archived for at least two years, following the last crediting period of the carbon credits associated with this CCB project.

Climate Impacts Monitoring Report

TIST was designed as a climate change project and has been operational since 2003. It is made up of thousands of individual discrete project areas spread over thousands of square kilometers, over many districts and near many villages. Each project area is owned and managed by a different group of people, which TIST calls Small Groups. The Small Groups select the species of trees, the number of trees to plant and the planting schedule. They also own and maintain the trees and the tree products. While TIST works with the groups to develop best practices that can be shared and adopted by everyone in the organization, the fact remains that each project area is different. The difference is such that the monitoring system required is different than typical forest monitoring protocols.

The following summarizes the climate impact results measured and reported for the TIST Uganda CCB Small Groups. The climate impact monitoring was done as part of verification under the Voluntary Carbon Standard 3.1. As such, the actual monitoring data and analysis was conducted separately for the VCS project areas that make up CCB-001. Reference will be made below to the VCS Monitoring Data. The data was extracted from the TIST Database on 6 October, 2011 and are found in the worksheets of the following Excel spreadsheet:

- TIST UG PD-CCB-001i App08 Monitoring Data 111101.xls

- 1) **Total hectares of the project and each project area.** 1,487.5 total hectares. See "PA Summary" worksheet for area of each PA.
- 2) **Number of discrete project areas.** 1,645 total project areas ("PA Summary" worksheet).
- 3) **Location and boundary of project areas:**
 - a) See Appendix 01, Landsat 4/5 image for single point location of each PA.
 - b) See Appendix 02, Landsat 7 image for single point location of each PA.
 - c) See Appendix 03, track files of each PA in KML format (Google Earth).
 - d) See "PA Summary" worksheet, "Latitude" and "Longitude" columns.
- 4) **List of PAs including administrative and monitoring data.** See "PA Grove Summary" worksheet.
- 5) **Circumference data.** See "Circ" worksheets.
- 6) **Tree data including count and species.** Tree count is 1,850,708. See "Ex-post Strata" worksheet for species detail. See "Misc Calc" worksheet for details of allometric strata.
- 7) **Carbon sequestration data by project area and strata.** See "Ex-post Strata" worksheet. See "Misc Calc" worksheet for details of allometric strata.
- 8) **Total carbon sequestered.** 128,118 tonnes. See "Ex-post Strata" worksheet for calculation.

Community Impact Monitoring Report

The following are the results of the Community Impact Monitoring. Data specific to the PDD was taken from the VCS verification report. Program-wide data was extracted from the TIST database on 20 October, 2011.

1. **Number of Small Group members in PD (male and female).** 2,932 people; 1,168 women; 1,763 men.
2. **Number of Small Groups in PD.** 456.
3. **Number of community members in TIST Uganda (male and female).** 5,805 people; 2,409 women; 3,396 men.
4. **Number of Small Groups in TIST Uganda.** 883.
5. **Number of community members adopting natural resource management practices.** 5,723 members, 2,380 women, 3,343 men.
6. **Number of community members with greenhouse gas agreements with TIST.** 4,000 people; 1,587 women; 2,413 men.
7. **Total payments to community.** US \$382,996.
8. **Number of TIST tree groves planted by community members.** 4,428 groves.
9. **Number of person-training sessions on TIST and TIST components.** 897.
10. **Number of live trees planted by TIST Small Groups in Uganda.** 4,622,214 trees.
11. **Number of fruit or nut trees in TIST PD Uganda.** 5,116 trees.
12. **Number of eucalyptus trees in TIST Uganda.** 455,354 trees.
13. **Number of people employed by TIST or under contract to deliver services.** 23 salaried and 60 volunteers receiving meal and transportation support.

Biodiversity Impact Monitoring Report

The plan uses TIST's strength in gathering, verifying, and analyzing field data to measure critical biodiversity metrics in the farms and groves where TIST farmers work and live. Trees are the main focus of biodiversity impact monitoring since they provide important habitat diversity and structural features for biodiversity. Tree biodiversity is expected to increase as a result of awareness raising, training and incentives.

TIST Quantification is a constant process. Trained Quantifiers will visit each discrete project area as part of their normal duties and collect the data required by this monitoring plan. Using the TIST Data System, key observations and measurements will be recorded in a digital format on hand held computers and sent to the TIST database. As new data comes in, it will populate the TIST.org website. Annual monitoring of each site is expected and a minimum of every five years will be achieved to conform with CCBA monitoring reports. Reports for CCBA will be at minimum every five years.

The following are the results of the Biodiversity Impact Monitoring. The data was extracted from the TIST database on 6 October, 2011.

- 1) **Total hectares of the project and each project area.** 1,487.5 total hectares. See "PA Summary" worksheet for area of each PA.
- 2) **The tree inventory of each project area.** Total tree count is 1,850,708. See "PA Summary" worksheet for count by project area. See "Misc Calc" worksheet for totals by strata. See "Ex-post Strata" worksheet for totals in each project area strata.
- 3) **Number of discrete project areas.** 1,645 total project areas ("PA Summary" worksheet)
- 4) **Location and boundary of project areas.**
 - a) See Appendix 01, Landsat 4/5 image for single point location of each PA.
 - b) See Appendix 02, Landsat 7 image for single point location of each PA.
 - c) See Appendix 03, track files of each PA in KML format (Google Earth).
 - d) See "PA Summary" worksheet, "Latitude" and "Longitude" columns.
- 5) **Hectares of indigenous trees.** 6.2 hectares. See "Misc Calc" worksheet for totals. See "Ex-post Strata" worksheet for species detail by strata.
- 6) **Number of indigenous trees by project area strata.** 4,540 total indigenous trees. See "Misc Calc" worksheet for totals. See "Ex-post Strata" worksheet for species detail by strata.

Gold Level Exceptional Community Benefits Monitoring Report

The purpose of Gold Level Exceptional Community Benefits monitoring is to demonstrate that the project approaches "are explicitly pro-poor in terms of targeting benefits to globally poorer communities and the poorer, more vulnerable households and individuals within them."¹ In addition, the project must "'do no harm' to poorer and more vulnerable members of the communities, by establishing that no member of a poorer or more vulnerable social group will experience a net negative impact on their well-being or rights."²

TIST was formed to do just that. It was developed to empower subsistence farmers to reverse the devastating effects of deforestation, drought, and famine by planting trees. Combining sustainable development with carbon sequestration, TIST already supports the reforestation and biodiversity efforts of over 60,000 subsistence farmers in four countries. Carbon credit sales generate participant income and provide project funding to address agricultural, HIV/AIDS, nutritional and fuel challenges. To demonstrate this for Gold Level, a differentiated approach was taken that can "identify positive and negative impacts on poorer households and individuals and other disadvantaged groups, including women."³

The monitoring of the exceptional community benefits was conducted using a survey. The survey was developed by an independent contractor for TIST Kenya,⁴ who trained TIST personnel how to implement it in the field. Hakim Buchwa was designated the host country team leader and trained six TIST members on how to conduct the survey. The survey was conducted in March and April 2012. See Exhibit 21⁵ for the survey template and Exhibit 22⁶ for the report of the survey results.

The interview tool consisted of 37 questions within five main topic areas, including demographic/basic information, TIST membership information, benefits from TIST activities, and specific questions on Conservation Farming and food security, and Progress out of Poverty questions developed by the Grameen Foundation, to assess poverty likelihood based on simple, non-financial indicators. The total sample size was 46 TIST project participants.

The summary of the positive and negative impacts of TIST on the membership as a whole, on women and on the poor and most vulnerable are presented below. More detail is available in the actual survey report.

Positive and negative impacts on TIST members. The survey indicated TIST participation provides benefits to all members in relative proportion to the extent to which members choose to adopt improved practices. Numerous benefits were identified that were attributed to program participation. They include carbon income (tree payments), seedling production, fruit and nuts, sustainable firewood, Conservation Farming and improved cook stoves and many social

¹ CCB Standard, Second Edition, GL2. Exceptional Community Benefits

² Ibid.

³ Ibid.

⁴ Sophie Oppenheimer, MS, MPH, Research Project Coordinator, Trees For Life International, Program Evaluation Consultant

⁵ TIST UG PD-VCS-Ex 21 GL2 Community Survey Template.doc

⁶ TIST UG PD-VCS-Ex 22 GL2 Community Survey Result.doc

indicators. The cumulative economic benefit for an average member was calculated to be 7,983,205 Ush and the overall social impact reported was positive.

The negative impacts of the program were also identified. While most members felt that TIST had a positive impact on their lives, 2 members indicated that they were losing money participating in TIST, 4 indicated they had less to eat because of TIST and one felt they were too busy with TIST to do the important things they need to do.

Positive and negative impacts on women. The gender balance in the survey was 30% female (n=14) and 70% male. When the economic benefits were analyzed on a gender basis it showed that, at 8,982,004 Ush, women had a higher cumulative average benefit.

The negative impacts identified by women were few. One woman said the family has less food to eat because of TIST (wherein 13 said it was not at all true) and two said their friends or family were not happy they are TIST members. In open-ended questions, 9 said there were no negative impacts, 3 said they experienced a delay in tree payments and 3 said they wanted an increase in tree payments (one respondent gave two answers).

Positive and negative impacts on poorer and more vulnerable groups. The survey established that the 18 of the 46 members in the survey had self-reported incomes of less than US \$2 per day. Using the results of the Progress out of Poverty questions, the 7 poorest and most vulnerable members were identified. The average economic benefits to each of the 7 was 6,925,024 Ush, slightly lower than the average but still significant.

Very few negative impacts were identified by the 7 poorest TIST members. One said their friends or family were not happy they are TIST members. In open-ended questions, 5 said there were no negative impacts, 2 said they experienced a delay in tree payments and 1 wanted an increase in tree payments (one respondent gave two answers).

Summary. The differentiated survey has demonstrated that TIST is an overall positive effect on all members, including women and the most poor and vulnerable.