



## **PROJECT STATUS REPORT**

Period of the report:	MARCH 2021 - MAY 2022
Project:	Forest Restoration for Carbon Sequestration in West Bugwe Central Forest Reserve
Country:	UGANDA
Service Provider:	Uganda Timber Grower's Association
Date:	MAY 2022





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#### 1.0 Introduction

UTGA in partnership with DFE have undertaken a forest restoration project in West Bugwe CFR, Busia District, Uganda from May 2021 – May 2022. This majorly involved planting and maintenance of trees within the allocated area. The area of operation to date is 203 hectares as shown in the map later although some portions of the area were either unplantable due to being rocky or being intact. The net restored area based on individual planting blocks and the planting material used is 159 hectares.

The planting was done in two phases during the two planting seasons of March- May and September- November 2021 and 103.76 and 56 hectares were restored respectively. A local but certified contractor attached to NFA was identified and did the work successfully. As part of the planned community interventions, all workers were sourced from the communities surrounding the reserve and contributed greatly to the local livelihoods.

The methods used included; Gap / block planting, enrichment / line planting, Strip clearance and maintenance of lines all with native species in accordance to NFA Forest Restoration Guidelines, 2020: and encroachment / boundary planting with fast growing (native and exotic) species.

#### 2.0 Gratitude to our donors

UTGA will like to thank <u>Grow For IT</u>, for collecting and distributing donations from its sphere of individual as well as institutional sponsors. A special thank must be directed to <u>Implement</u> <u>Consulting Group</u> for its founding donation originally helping us to launch this project.

#### 3.0 Restoration activities PHASE I

During phase I, a total of 22,990 seedlings were planted in May 2021. Even if the plan was to plant trees to cover 40ha, an area measuring 103.76ha was covered with planted trees. This area however comprised of some rocky (hard pan) which were thus unplantable and portions of regenerating forest, that did not require disturbance. The trees were planted at a spacing of 4meters by 4 meters. The species chosen for planting were based on the provisions of the forest management plan for the reserve and as advised by NFA. The seedlings were sourced from multiple sources including the UTGA nursery, the NFA nurseries in Jinja and Mbale.

Before the second phase planting, maintenance activities were carried out for the first planting. These included spot weeding Spot weeding, tree survival assessments and beating up.

The tree survival assessments were carried out to determine the survival rate of the planted trees and also to help to determine the scope of beating up. The initial planting provided valuable lessons on species and their resilience when planted in this location.





## 3.1 Spot weeding

This was done at the beginning of September 2021 in order to pave way for the survival counts and beating up but also to ensure that those seedlings that survived were devoid of weeds. All spots with tree mortality were also pitted and planted.

It was also agreed by the UTGA & NFA team on the ground that where the planting had been done by opening planting trails in the thickets, there was need to reopen or maintain the trails to allow enough light to reach the young plantings. This was also to limit competition of the planted trees provided by the brushwood and to open up spots for replacement of dead trees.

#### 3.2 Tree survival assessments

The survival in open areas was quite good and better than in the trails through thickets. Survival assessment forms were developed and shared with the contractor and demonstrations on how to use them was done, thus survival was ably assessed. The survival assessment procedure consisted of taking note of the living and dead saplings, of which a sum was obtained and thus a percentage of the living species was taken to ascertain the average survival percentage. The average survival was found to be 52.76%. Subsequently, this survival then informed the number of seedlings procured for replacement and the related logistics.

## 3.3 Beating up/blanking

Resultantly, there was need to replace the seedlings that dried up in the phase one planting. Since initially the net planting based on the seedlings used was 40 hectares, the seedling requirement for beating up was 47.24% of those used for initial planting. Therefore, as part of finalizing phase I activities, 11,800 seedlings were used to replace those that did not survive in phase I.

Future maintenance required spot weeding to be done at least once a year, starting with this season for at least the next two years. Sapling liberation along the trails and general forest protection continue and are ongoing.











#### 4.0 PHASE II

The second phase of planting was done in September 2021. Similar activities were carried out in preparation for planting and actual planting and the same spacing was used.

While the planting targeted 50ha, some places had good natural regeneration while others comprised of a hard pan and thickets originating from the Kampala-Busia main road, the final area of operation was 56.18ha. These were all fully planted and the net planted area is 50ha based on the number of seedlings planted. Seedlings for another 8 ha has been purchased and will be planted after a period of solid rain.

For this planting, there were hardly any open areas. All areas planted comprised of thickets dominated by grasses and short shrubs. The thickets originated from the main road from Kampala to Busia. Preparations for planting involved clearing and opening planting trails at 4m intervals to maintain the spacing. Since most of the area was covered with thickets, it was important that no full clearing was done.

The species choice for this phase was based on the success from the previous planting with considerations made for site suitability, species with high survival, resistance to drought and termites, fast growth and their availability.

The seedling procurement was based on the allocations below.

## 4.1 Species composition

Activity	Seedlings (No.)	Remarks
New planting	31250	All used
Encroachment/boundary planting	8034	These are being maintained at site while we wait for boundary opening by NFA.
Immediate replacement in Phase II plantings.	6950	To immediately replace those that fail during the phase II plantings.

S/n	Indigenous speciesSpecies	Quantity
1	Maesopsis eminii	4,000
2	Prunus africana	8,000
3	Khaya anthotheca	7,300
4	Albizia zygya	4,760
6	Tamalindus indica	900
7	Antiaris toxicaria	1,300
8	Vitex doniana	854
9	Afzeria africana	7,722
10	Melia Volkensii	5,000
11	Gmelina aborea	2,000





12	Azediracta indica	3,000	
13	Spathodea Campanulata	1,877	
14	Makhamia Lutea	2,000	
15	Albizia Gumifera	1,287	
	Sub Total	50,000	
16	Eucalyptus species	8,034	
	TOTAL	58,034	

This phase of planting was affected by uneven rains that led to loss of some plants even during the planting season. However, some replacements were done within the season. This increased the survival. 31250 seedlings were planted and some extras were used for in-season replacements.

The planting material was sourced from both the UTGA nursery and other certified nurseries including the NFA nurseries.



## 4.2 Maintenance for phase II planting

During the first rain season (April – May) 2022, tree maintenance activities were similarly carried out for the phase II planting. These included spot weeding/ring hoeing and reopening of planting trails, survival counts and blanking.

The survival was found to be 60.33% and the blanking was based on this. 12046 seedlings were used for beating up and the species selected were based on the performance from the first planting.

Wherever possible liberation of saplings was also done within the area of operation to allow plants that are self-regenerating to thrive along the planted ones.





### 5.0 Boundary planting

In order to secure some fragile parts of the forest boundary it was recommended that some boundary planting be done using eucalyptus (as recommended by NFA) and some bamboo.

This was planned to be done in the September/October 2021 planting season however, there was a need for boundary opening for the entire reserve. The boundary planting was postponed to the following season. This implied establishment of a temporary nursery and maintaining the seedlings till the following season. A convenient location was identified with a reliable water source and two workers allocated the responsibility of their maintenance. UTGA engaged NFA senior management on the issue and in February 2022 the boundary of West Bugwe CFR was successfully opened. The planting was done in the March – May 2022 planting season.

## 6.0 Forest protection

In order to facilitate the proper growth of the trees planted and also to facilitate a quick restoration of the area of operation, forest patrol men were appointed to work closely with the forest guards in protecting the restored area. Previously the area had been affected by grazing, foot and motorized community access and other forms of encroachment including damping of garbage. The patrol men have since curbed this and the results are visible. All paths and motorable roads were closed off by establishing trenches at intervals and the area is now free of grazing activities.

## 7.0 Planning and monitoring visits by UTGA and NFA

UTGA from time to time conducted field planning and monitoring visits to check on the progress of the field operations and to technically support the contractors. The visits also involved interactions with community leaders mainly to identify ways of how they can be part of the project.

During these visits some nursery visits were often done to plan for the supply of planting material.

The NFA and botanical nurseries in Mbale and Kampala were visited to determine their possibility as sources of seedlings. The species under consideration were those that were identified as fit for the site and those that survived and grew well in the first planting season.

#### 8.0 Community engagements

At the onset of the project, UTGA in partnership with NFA conducted an inaugural sensitization meeting with the local leaders from the sub counties surrounding the reserve. In this meeting the community members were introduced to the then forthcoming forest restoration activities UTGA was to be engaged in and they were requested for their support. They were requested for their continued support and also advised that there could be some community support aimed at contributing to local livelihoods.

The first community intervention was to deliberately allocate the operational contracts to local people and to ensure that all work is done by workers from the local communities. This was





successfully done and contributed greatly to local incomes. Community engagements continued with local leaders.

In January 2022, UTGA (the General Manager, Program officer and a volunteer) in collaboration with NFA (the director for planning and the local Sector Manager and forest supervisors) conducted meetings with community members surrounding the West Bugwe Central Forest Reserve and the major stakeholders relating to the restoration project. These included majorly local council representatives from the surrounding sub counties, local government representatives (environment and forestry officers) and some community elders.

The meetings aimed at;

- 1. Creating further awareness of the ongoing and future restoration interventions by UTGA
- 2. Sensitizing the communities on their roles in restoring the forest.
- 3. Identifying potential support areas or community interventions that UTGA could consider to contribute to both improving local livelihoods but eventually to protecting the forest against further degradation by the communities.

The meetings were held in the two-sub counties that is, Bulumbi and Busitema. The meetings aimed at introducing the project to the community members and trying to identify the possible interventions by UTGA in which they can work together with the aim of protecting the forests.

Below were the deliberations from participants at the meetings

#### 8.1 The UTGA General Manager

- 159 hectares were planted last year.
- The proposed UTGA engagements are restoration with indigenous species, protection and community engagements.
- Eucalyptus seedlings will be planted around the boundary of the forest and those would act as buffer zones to which the community can benefit as well.
- Three signposts will be installed along the junctions and this is going to be done by UTGA to show West Bugwe forest reserve.
- Engaging the community leaders on how we can work together for development.
- Examples of these projects which were discussed included the bee keeping projects, protecting their cattle on zero grazing, providing free seedlings and the community market to be set up.
- UTGA requested for more 2000 ha from NFA for restoring.

#### 8.2 NFA

- Pledged to continue collaborating with the UTGA for the success of this project.
- Promised to contribute to apiculture trainings as one of the projects to benefit the communities around the forest.





- Community members will still be given opportunity to do the restoring as another source of income. That is the preparation of land till planting time.
- Incase cattle need to feed in the well of the forestry, permission should be got from the forestry offices hence reduce on the misunderstanding with in the community members.

#### 8.3 The District Environmental and forest officers.

- The boundaries of the forest are not clear and something should be done in order not to lose any parts and good engagement with the communities that would be on the boundaries before its late.
- Where the hard pan exists, NFA could consider allowing communities to graze.
- Restoration interventions could involve vegetative propagation.
- The project should consider alternative income generating activities like reviving the market and picnic sites.
- Integrate fruit trees in the restoration for community benefit.

## 8.4 LC III chairpersons

They highlighted that the sensitization of the community that has been done in the past contributed so much to the regeneration of the forest since 85% of the people left the forest. They made suggestions of the community interventions that could be considered for the people who left the forest. They highlighted some of the community interventions that UTGA could considered. These are expounded below.

They suggested that the community market which collapsed due to mis understandings and improper management, would work better for the surrounding communities if reconstructed.

#### 8.5 Community members concerns

- They welcomed the UTGA and NFA ideas on community engagements and were thankful for work done. They requested that this should continue.
- They suggested that the community market that collapsed in the past was the biggest concern
  for both sub counties and should be replaced since it's along the high way. They advised that
  if set up again it can be a good way for them to generate income since they are farmers and
  fruits, food and other inputs are available for sale and that this would include also strengthen
  their relationships at large.
- The picnic site was one of the projects that both subcounty wanted to apply in terms of generating income projects.
- The community didn't agree to keep local animals on zero grazing since they keep them in large numbers which is difficult to keep them in one area.
- Called for the collaborating community management which failed in the last years because of poor cooperation if raised again and managed well can work.





- Beekeeping was another project that the communities agreed upon on the set up with in the forest as an income generating project if granted the opportunity but need skill and the starting capital.
- Culture tourism component can be put in the place as one of the projects, Like the Bagisu in Mbale, the Basamya can use their cultures as part of eco-tourism hence add on the income through paying as tourists.
- Free seedlings can be offered to them, but the fast-growing ones are better preferred for to use them as home woodlots in terms of firewood and other benefits this will reduce on the over dependence of the trees with in the forest.
- Local leaders requested UTGA to consider allocating allowances to community members to facilitate the related work in their areas.
- There is need to deal with the challenge of baboons.
- There's need for continued sensitization on how to protect the forest and how to benefit from it.

## 8.6 General recommendations from the meetings

- The forest Boundaries should be clearly opened.
- The rest of the reserve should be given out to UTGA for more restoration
- Sensitization of the local communities on the importance of forest regeneration should continue.
- Continue use of locals for planting as one way of conserving the forest but also for them earn a living.
- Revive the ecotourism site
- The efforts of UTGA and NFA have led to the quick regeneration of the forest.
- Previously there were disagreements between NFA and the communities but these have reduced greatly
- Previously the forest was looked at as a source of income but now that access has reduced, there is need for NFA to identify and support alternative source of income in order for the community to deter from depending on the forest.
- Animals that are taken to drink water in the forest one should first obtain permission from NFA offices at the forest.







Meeting with the community leaders in Bulumbi and Busitema sub counties



The UTGA team and NFA in community meetings with Busitema local leaders

## 9.0 Apiculture

Resulting from the community consultations and apart from provision of job opportunities to the local communities through employing them in the restoration work now and in the future, apiculture was identified the next community intervention.

First, in partnership with NFA, trainings in apiculture were conducted for the community members from the villages surrounding the reserve. Later an apiculture demo was done with an initial 10 bee hives for the community members to learn from. This will later be expanded to individual members.







The community training at West Bugwe CFR forest station

## 10.0 Sign Posts

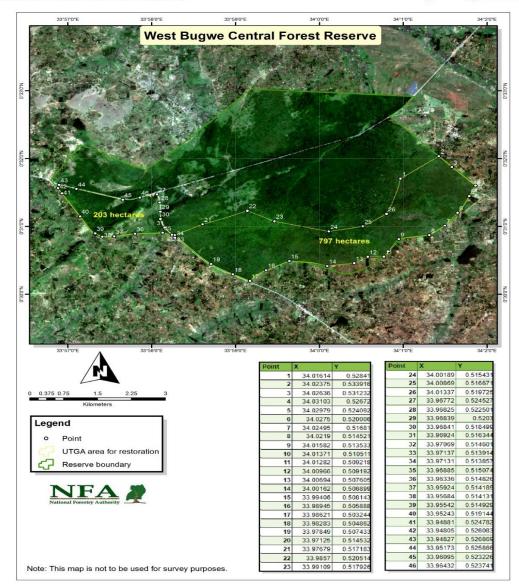
In consultation with NFA, three sign posts showing the restoration activities going on were erected at strategic positions around the reserve.

## 11.0 Mapping

The designated area for this restoration project was mapped out. The mapping also included the area where the restoration activities have so far been done. Below is the map showing the allocated area and that restored so far.







The map above shows the 1000 hectares so far allocated and demarcated for restoration and the 203Ha restored.

#### 12.0 Forest Boundary opening

Forest boundary opening was an old challenge to management of the reserve especially where the reserve is next to communities. As part of the restoration work, there plans to do boundary planting with fast growing species as a means of reducing community activities within the reserve which was a major challenge. The boundary wasn't clear and clearly had signs of encroachment into the reserve. UTGA lobbied NFA to ensure that boundary opening is done. The boundary was opened and the boundary planting was done at the critical points. Concrete Pillars were also placed along the boundary to make the planting activities clear and also to clearly show the communities the reserve boundary.







A pilar used to demarcate the forest boundary.

## 13.0 FSC Certification

As earlier indicated, UTGA intends to get the restored area FSC certified. This area will be added onto the UTGA group scheme through an extension of scope. The forest will be certified for provision of ecosystem services. The process will involve first informing our certifying body (Soil Association), followed by technical training on how to achieve certification and then compiling the requisite documentation and stakeholder engagements. We hope to have the area certified by end of year 2022.

Follow the link below for more pictures of the project.

## https://1drv.ms/w/s!AsR8CbIr6MkvgQkuacgPzbaiySHO?e=MbP9Sv

The UTGA and DFE restoration project in West Bugwe CFR has been a trailblazer. Apart from going over and above what was planned, it is being used as a benchmark and UTGA is in final negotiations with FSC Germany to support restoration of 50ha annually for the next 5 years.