

Project Update: November 2022

1.0 Tree Planting Activities

The tree planting activities were carried out in the second quarter of the project year. Five thousand indigenous and 300 coconut trees were planted were distributed and planted in all 24 communities. The indigenous tree species planted were *Terminalia superba*, *Kyaya ivorensis*, *Militia thonungii*, *Terminalia invorensis* and *Ceiba pentandra*. These species were selected because they are fast-growing and well-adapted to the prevailing climate and soil factors. An assessment was carried out in all the communities to ascertain the areas that will require planting as well as the number of tree seedlings that will be needed. Some of the communities have already planted some trees in earlier projects, and the new seedlings were used to augment them. The trees were planted mainly along the banks of the lake, bare areas in the communities, along the banks of smaller rivers and hills. Some were also planted on the farms of the community members. The planting was carried out right at the start of the rainy season to ensure that the tree seedlings experience little shock and acclimatise to the new environment. The community members were enthusiastic about the tree planting exercise and contributed immensely to the planting activities through communal labour. They have pledged their support to ensure that the trees grow to maturity. Below are some pictures of the distribution and planting of seedlings in the communities.



Plate 1.1: Seedling distribution by boat. Plate 1.2: Seedling distribution by vehicle.



Plate 1.3: Seedling distribution by boat. Plate 1.4: A Community member receiving tree seedlings



Plate 1.5: Planting of a seedling at Abono. Plate 1.6: Planting of a seedling at Edwafo.



Plate 1.7: Seedling planting at Abaase. Plate 1.8: Seedling planting at Obo.

The planting of the trees is part of the support of the Greening Ghana initiative which is meant to increase the tree cover and biodiversity as well as improve carbon sequestration and stocks in Ghana. It is also a part of the contribution to the Sustainable Development Goals 11 (Sustainable Cities and Communities), 13 (Climate Action) and 15 (Life on Earth). Furthermore, it is also in support of the global agenda United Nations Decade of Ecosystem Restoration (2021-2030) initiative which is meant to restore degraded ecosystems. In the local context, it is expected to contribute to protecting the banks of the lake, ameliorating the local climate, reduce soil erosion and siltation of the lake. Also, the coconut trees are expected to contribute to the livelihood of the communities as the mature fruits are sold and the proceeds are used to support community projects such as the building of schools, recreational centres and portable water systems.

2.0 Monitoring

Monitoring of the planting activities has been conducted in 12 communities to ascertain the survival and care of the seedlings. The communities visited are Abono, Nkwawi, Abrodwom, Obo, Abaase, Edwafo, Brodekwano No. 1, Esaase, Anyinatease, Hantaase, Banso and Atafam. The seedlings were found to be thriving and growing well as they are established and adapted to the soil. The management practices adopted by the communities include weeding and protecting from browsing animals. The communities have elected local representatives who oversee managing the planted trees to ensure that they grow well. Find below some images of the plants monitored.

The activities of the communities following the awareness creation are also being monitored. This is being done to assess their understanding of the issues that have been discussed in the various forums. The monitoring is carried out through direct observations, and random discussions with local tradition and political leaders as well as with community members. The information obtained is being assessed to inform the approaches to use in subsequent forums and also improve the project activities for sustainability purposes.



Plate 2.1: *Terminalia Superba*. Plate 2.2: *Terminalia ivorensis*.



Plate 2.3: Coconut. Plate 2.4: *Militia thoningii*.



Plate 2.5: *Khaya ivorensis*. Plate 2.6: *Ceiba pentandra*.

3.0 Data Collection and Analysis

All the phases of the data collection activities have been completed. The first phase was the data collection in the Bosomtwe Range Forest Reserve. The specific operations included the collection of tree information such as diameter, total height, species name and GPS locations of each tree. This information will be used to model and predict the carbon and biodiversity levels of the forest. The land cover information of the forest such as closed and open canopy forests as well as other relevant covers was also recorded. The data will be used to characterise the land use land cover (LULC) of the forest. It is important to indicate that, although carbon and biodiversity level prediction was not part of the initial plan, they were considered and added. This is because carbon and biodiversity data are part of the essential elements needed to support decision-making for management and conservation purposes. The analysis and modelling are currently ongoing, and the finding will be drafted into articles for publication in internationally recognised peer review journals. Find below some images of the data collection.



Plate 3.1: Data collection on Lake Bosomtwe. Plate 3.2: Data collection in the community.



Plate 3.3: Data collection at the bank of the lake. Plate 3.4: Data collection in the Bosomtwe Range Forest Reserve.

4.0 Community Awareness and Engagements

Two rounds of community awareness campaigns were conducted in the communities to improve their understanding of the need to conserve the Lake Bosomtwe Biosphere Reserve. The campaigns which were carried out through community forums and dialogue platforms were intensified in order to ensure that the communities are empowered to contribute effectively to the conservation of the biosphere. It was indicated in all the discussions that, continual degradation and modifications of the reserve through activities such as agriculture expansion, illegal felling of trees and increase infrastructural development especially close to Lake Bosomtwe will have negative environmental consequences which will impact their livelihoods. Furthermore, there has been the reiteration of the fact that the detrimental effect of

the continual degradation of the biosphere due to its reduced functional ability will be felt more in the local context, although it will be felt at the national and global level as well.

Issues such the causes and effects of climate change were also discussed. It was indicated that one of the major causes is deforestation which reduces the capacity of the trees sequester atmospheric carbon. It leads to rises in surface temperature and fluctuations in rainfall patterns. The community members and participants acknowledged variations in the rainfall and dry seasons which have affected fishing and agricultural activities. Actual images of activities were taken and shared with them to have a pictorial view of the issues being addressed. In all the community engagements and forums, it has been stressed that there is the urgent need to minimise farming and building close to the lake, clearing of riparian vegetation, reducing insanitary activities around the lake and maintaining a buffer zone around the lake. Community members were also informed to practice agroforestry and retain trees on their farms as part of climate change mitigation and adaptation measures. Some of the training was also carried out in schools so that the students would also get an understanding of the need to conserve the environment and natural resources. Find below some of the images of the training programmes.



Plate 4.1 Forum in a primary school. Plate 4.2: Forum at a junior high school.

It became evident that in some communities, the participants attribute the reduction in fish stocks, limited rains and intensified dry months to traditional beliefs. They indicate that the god of the Lake Bosomtwe is angry due to the non-adherence to and flouting of certain old customary rights. However, it was indicated to them that, although their beliefs are respected, it is rather the human activities (for instance washing in the lake, over-fishing, farming on slopes) that are contributing to the negative factors but not

the anger of the gods. The clarification was accepted by the participants and indicated their willingness to contribute to the conservation of the biosphere.

5.0 Local Community Radio Programmes

Local community radio advocacies were held in 13 of the larger communities. These communities were Amakom, Nkwawi, Pippie I, Agyamam, Edwafo, Abono, Obo, Ankaase, Atafra, Esaase, Domba, Duase and Bansa. The programmes were held on taboo days when community members are mostly in the house and do not go fishing or farms based on local customary norms. These communities were chosen because they have higher populations and experience increased human activities such as farming and building close to the lake, illegal felling of trees, clearing of riparian vegetation as well as unsanitary condition around the banks of Lake Bosomtwe. The approach of using the local community radio was considered to be more effective than using bigger radio stations in larger and peri-urban areas, as community members might not benefit. This is because not all may be able to access the frequencies or have a means of listening to such discussions on bigger radio stations. Moreover, the issues are more vivid and directly address their local issues which may not be of benefit to the urban or peri-urban communities that are not in direct contact with the biosphere.

6.0 Remarks and conclusion

The communities have been very responsive and very involved in the activities. The community are now very aware of the need to reduce activities that are negatively affecting the Lake Bosomtwe Biosphere. These activities are expected to be sustained to enhance a change in behaviour among the community members.

Furthermore, the monitoring and evaluation will be continued in all the communities to ascertain their understanding of the awareness creation on conservation. As it stands now, they are enthusiastic and getting more involved in the implementation of the project. The planted trees will also be monitored as part of the process.

There has been an enhanced partnership with the Forest Service Division in community engagements and data collection. This collaboration is expected to continue through the project lifespan and beyond to enhance the sustainability of the initiative that has been started.