Temwa Carbon Balance summary

Temwa Carbon Balance provides organisations and individuals with an opportunity to offset their CO2 emissions through community-driven initiatives such as tree planting, sustainable farming, and the management of local natural resources in the remote villages of Nkhata Bay North. Since 2020, we have successfully planted **234,221** trees, including **53,756** seedlings this year alone. We are excited to share our latest report, highlighting our achievements in the first half of 2025.

Project context and aims

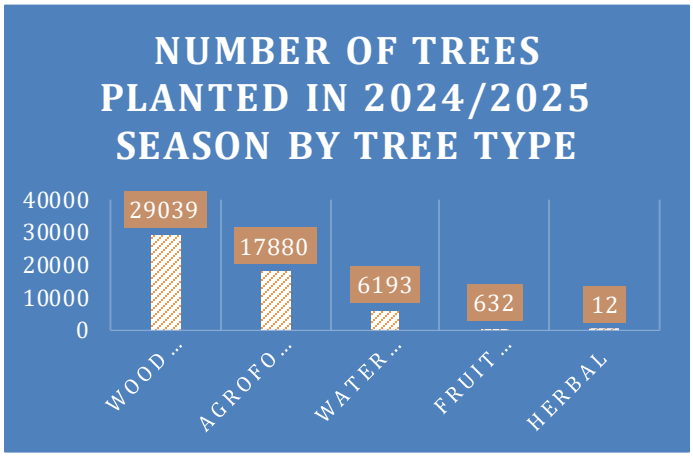
Approximately 90% of households in Nkhata Bay North rely on smallholder subsistence farming, with 58% of the population living below the national poverty line. These families depend on agriculture to sustain themselves but are increasingly struggling due to the impacts of climate change. Unpredictable rainfall, droughts, floods, strong winds, and crop pests are disrupting food production, further deepening vulnerability and poverty.

Extreme poverty often drives unsustainable resource use, leading to local deforestation. This deforestation accelerates soil erosion, depletes water sources, and reduces agricultural productivity, creating a cycle of environmental degradation, food insecurity, and income instability. Temwa Carbon Balance addresses these challenges by supporting community-led reforestation, sustainable livelihoods, and the responsible management of local natural resources. The programme empowers communities to sustainably manage their resources, diversify livelihoods, restore forests, prevent land degradation, and improve soil health.

Recent Project achievements

Tree planting – during the 2024/2025 forest season, the rains started very late, at the end of January. This delayed tree planting, with only **2,786** trees being planted in January, covering **2.13** hectares of degraded land. This is a clear indication of the devastating effects of climate change which Temwa Carbon Balance is striving to alleviate.

In February, the rains fell very well within the first two weeks, however, there followed a dry spell for almost a month. In the first two weeks of the month, the communities managed to outplant **15,400** assorted tree seedlings, through 3 tree planting events involving **50** community members.



A total of **24, 451** tree seedlings of different species were planted in the month of march despite lack of rain at the beginning of the month. These seedlings covered an estimated area of **10.05** hectares of already identified land. It also covered approximately **2000** meter stretches of different river streams. Community members ended the forest season by planting a total of **10,999** tree seedlings in the month of April. Therefore, during the 2024/2025 forest season, the project managed to out-plant **53**,**756** assorted tree seedlings covering 21.5 ha of degraded land.

Fruit orchard production and management

Over the past 6 months, the project established 41 fruit tree orchards in the uplands, including two primary school orchards, with the remainder being for individual homesteads. A total of 1,480 fruit trees were planted in these newly established orchards covering a total of 5 acres of land. This has provided communities with a diversified source of income and nutrition. The project also bought 1,000 banana plants which were used to support the communities in the lakeshore of Usisya.

The project conducted two training sessions for community members on the management of these fruit orchards. The monitoring conducted in the newly established orchards revealed an average of 98% survival rate with good management practices such as weeding and protection from animals and children through tree guards. Through the discussion with the orchard owners, it is expected that they will establish their own fruit tree nurseries to extend the orchards in the coming forest season (2025/2026).

Forest-Friendly Livelihoods

In its quest to protect the natural forests in the communities, Temwa supports the communities to engage in forest-friendly businesses, including bee-keeping. The initiative both protects the natural forest from human harm as well as provides an alternative source of income. During this six-month period, the project mobilised one community on bee-keeping business in Manyenyezi. Chikoko VNRMC has ventured into this business to protect their 46 ha of land and to diversify their income generation.

The VNRMC was trained in business plan development – their plan includes the aim to construct 100 beehives this year. By the end of June, the VNRMC had already mobilised 50 planks to be used for beehive construction. The mobilisation of this VNRMC in bee-keeping has brought the number of VNRMCs involved in bee-keeping to 3, including Jembe and Kanolo VNRMCs. Monitoring activities were also conducted for the Jembe and Kanolo VNRMCs, and both were found to be well managed. Kanolo VNRMC expects to harvest 300 kgs of honey in November, a 100 kgs more than last year's harvest. This is expected to give them at least **MKW2, 400, 00.00 (£1,027), MKW1,385,000** more than what the realised last year. Jembe VNRMC monitored their beehives in August and found no honey had been harvested. They will come back to check on the beehives in November.

Stewardship of natural resources

In addition to afforestation and reforestation objectives, Temwa's Carbon Balance also promotes the protection of communities' existing natural resources. During this reporting period, the project conducted a mapping exercise of natural forests earmarked for protection in Nkholero and Manyenyezi. A total of three natural forests were mapped, covering over 30 hectares. This means that three communities with a total of 45 community members are now participating in the protection of natural resources.

A mapping exercise was also done with Chikoko VNRMC where 46 ha of land was identified for protection. Chikoko VNRMC has 30 community members who are participating in the protection activities. These forests are currently under threat of deforestation due to the valuable tree species they have, particularly Muwanga and Msese, which are highly sought after for timber.

A Forest Management Plan was developed for the identified natural forests in Nkholero. Under the protection strategy, village-level by-laws will be established, and regular patrols will be conducted within the forests. Additionally, the community will plant exotic tree species for timber production to reduce pressure on the natural resources. Periodic monitoring will also be implemented at the village level to ensure the effectiveness of these strategies. This includes weeding woodlots and forests, and building fire breaks to ensure optimal growth of trees. Temwa works alongside local governance structures who are equipped to promote sustainable livelihoods and landscape transformation, increasing forest protection and sharing knowledge among peers.

In the last six months, monitoring was conducted in the established bamboo woodlots. Temwa focuses on bamboo production to reduce pressure on the existing natural forests. During the monitoring, it was observed that the bamboos are surviving very well and bamboo planting will achieve its intended goal. One good example of a well established and managed bamboo woodlot is the one at Muzgora Primary School. With 60 bamboo seedlings out-planted, it is expected that this will greatly reduce pressure on the natural forest surrounding the school. It should also be noted that at least 20 bamboo woodlots were also established with the area.

Monitoring was also done in the already mapped out natural forests being managed in Jembe, Duwe and Kanolo. For example, in Jembe VNRMC, over 11 natural forests (covering over 10 hectares) are now being sustainably managed. The deforestation rate in these natural forests has reduced, with 2 counts of freshly cut trees compared to 21 freshly cut trees established during a review meeting in May 2024. There is also abundant natural regeneration, with coppices emerging, indicating a healthy and resilient ecosystem.

Challenges and lessons learned

The late and intermittent rainfall has negatively affected the tree planting exercises in this forest season. This is likely to affect the survival rate of the out-planted tree seedlings especially those that were planted in the early month of February. As a precaution, tree seedlings were soaked in water before planting.

In this period, Temwa's Community Demand-driven Approach is clearly working, with strong community commitment leading to significant progress in reforestation, afforestation and effective stewardship of existing natural resources.

Community stories

Shadreck invests in forest-friendly business

Shadreck Ngulube, a subsistence farmer, has found a new lease on life by diversifying his income sources through fruit production. After interacting with Temwa through the Carbon Balance Project in March, he joined a fruit production group and received training on managing fruit orchards. In the same month, Shadreck and the group received 15 grafted fruit tree seedlings each. However, he felt this was insufficient, so he engaged his family and purchased an additional 50 grafted fruit seedlings. After one seedling died, his orchard now has 64 assorted grafted fruit trees. Shadreck expects to harvest at least 5 fruits per tree in the next two years, which could translate to ***MKW 160,000.00*** *(if sold at* ***MKW500.00*** *each). This amount is expected to increase as the trees mature. With this new income source, Shadreck hopes to provide his family with basic needs, including quality healthcare and education for his two children.*

River line restoration

In Jembe Community under Lukhanda VDC, a determined group of farmers came together to restore their river line by planting M'bawa (Khaya senegalensis) trees in 2023. Their goal was to improve water retention and support their agricultural livelihoods, particularly during the dry winter months. This river line stretches 800 metres and pours water into the Livuwu River.

Through the Temwa Carbon Balance Project, the Community received support and guidance to implement sustainable land use practices, including the planting of over 200 M'bawa trees. The M'bawa trees, known for their drought tolerance and water retention properties, were chosen specifically for their potential to benefit the community's agricultural production in winter.

The results were remarkable. The M'bawa trees have thrived with a 95% survival rate, and the river line has begun to flourish. Water retention has improved, and the community has been able to maintain soil moisture during the dry season. This is expected to increase as the trees grow and will help the community to farm twice or thrice a year, increasing the community's crop yields and improving food security.

Thank you

We would like to send a heartfelt thank you for participating in the Temwa Carbon Balance Scheme. With your contributions, communities in Nkhata Bay North are able to proactively mitigate and adapt to the impact of climate change through tree planting, improved natural resource stewardship and through forest friendly livelihoods.

For more information, please contact:

Kerry Johnstone – Fundraising and Communications Manager
Kerry.johnstone@temwa.org