# **Plant-for-the-Planet Ghana Activities Report 2022**

By: Mohammed Rabiu Dannakabu for Plant-for-the-Planet Ghana



environment programme



UNTED NATIONS DECADE ON ECOSYSTEM RESTORATION 2021-2030

Plant-for-the-Planet supports the United Nations Environment Programme

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# **Executive Director's message:**

Dear donors, dear supporters,

We want to express our heartfelt gratitude for your generous donation towards our restoration project, Plant-for-Ghana. Your support is essential in helping us achieve our goal of restoring forests by planting as many trees as possible in order to combat the climate crisis, create green jobs and give back to nature in Ghana.

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We are proud to report that – thanks to your support – we have already been able to plant thousands of trees on our 1,000 hectares of degraded land. These trees will not only help absorb carbon dioxide from the atmosphere, they will also build an ecosystem for plant and animal species, and help provide food for the local community of Banpewa.

Your commitment has made a real difference in the fight against the climate crisis and we are deeply grateful for your support. We hope that you will continue to support our efforts and join us in our mission to create a greener, healthier planet for all.

Sincerely,





Mohammed Rabiu Dannakabu Founder and Executive Director of Plant-for-the-Planet Ghana







# Background

Plant-for-the-Planet Ghana is part of the international network of Plant-for-the-Planet entities and a non-governmental organization (NGO). We are dedicated to promoting sustainability and combating the climate crisis through ecosystem restoration and reforestation efforts. Founded in 2021, the organization has planted and cared for 52,332 trees - native and agroforestry species - in Banpewa near Bamboi in the Savannah Region. We are currently restoring 1,000 hectares of degraded land.

Overall, Plant-for-the-Planet Ghana is dedicated to restoring forest ecosystems to tackle the climate crisis and biodiversity loss. To do so, we empower young people, and plant trees, creating jobs and raising awareness for environmental conservation. The organization relies on donations and the support of volunteers to carry out its mission and make a positive impact in Ghana.

Plant-for-the-Planet Ghana runs the Plant-for-Ghana restoration project, which aims to restore and care for degraded areas of the country. It is a hybrid pioneer ecosystem restoration project which plans to plant 10,000,000 trees in Ghana. The Yucatán Restoration project in Mexico (run by our sister entity Plant-for-the-Plant A.C.), serves as a rolemodel. We believe that sustainable reforestation is the best way to restore Ghana's lost forests.

The project uses two different approaches in achieving our objectives, planting:

native species
agroforestry species



in the Northern Savannah Ecological Zone of the country. By restoring both native and agroforestry tree species we support sustainable food production and food security, as well as animal welfare, biodiversity protection, landscape management and flood preparedness. In doing so, Plant-for-Ghana creates sustainable sources of income through green jobs (like beekeeping for women and young people), raises biodiversity awareness among local people, serves as a resource for studies and empirical research by academics, policy makers and biodiversity enthusiasts in and outside Ghana whilst serving as a habitat for animal species and a bridge for the desertification gap within the Northern Savannah Ecological Zone in Ghana.

Our organization believes in the importance of community involvement and empowerment for environmental conservation. We therefore also run educational programs for children and adults, teaching the importance of trees and the role they play in addressing the climate crisis.





# International Collaborations and Involvements

#### Support from Plant-for-the-Planet Foundation:

Plant-for-the-Planet Ghana, since its inception, has been supported byPlant-for-the-Planet Foundation, helping to grow the structure of the organization and the restoration project in Ghana.

The Plant-for-Ghana project has received scientific advice to both diversify and select suitable tree species helping us to establish a resilient ecosystem. The project also received advice on bushfire management to help prepare the project and to get maximum control of yearly bushfires.

Plant-for-the-Planet Ghana has also received financial and in-kind personnel support from Plantfor-the-Planet Foundation.

# Cooperation with Plant-for-the-Planet Czech Republic:

The fight against the climate crisis requires global solutions and joint actions. Therefore, Plant-forthe-Planet Ghana has established a successful international cooperation with Plant-for-the-Planet Czech Republic. The Plant-for-the-Planet Ghana team met with the Deputy Ambassador of the Czech Republic in Ghana at the Embassy in Accra on the 10th of August, 2022. They talked about finding ways of cooperation and support between the project in Ghana and the Czech Republic.

# Youth Summit 2022:

The Executive Director of Plant-for-the-Planet Ghana participated in the Plant-for-the-Planet Foundation annual Youth Summit for 2022 from









Mohammed Rabiu Dannakabu at COP15 in Montréal

October 19th to 23rd. He met with the network of Climate Justice Ambassadors of Plant-for-the-Planet across the globe and shared success stories about Plant-for-Ghana and his journey with Plant-for-the-Planet.

#### UN Biodiversity COP15 in Montréal, Canada:

Mohammed Rabiu Dannakabu, the Founder and Executive Director of Plant-for-the-Planet Ghana, represented the Plant-for-the-Planet delegation at the UN Biodiversity Conference – COP15 in Montréal from the 6th to the 19th of December, 2022. He participated in side events where he spoke about Plant-for-the-Planet and the Plant-for-Ghana restoration project and also met important dignitaries to find ways to protect and create awareness on biodiversity.

# **About our Nursery**

The nursery is the engine of our organization and restoration project. Here we grow and care for the seedlings needed for our restoration efforts. The nursery currently has the capacity to raise 120,000 seedlings and can be expanded further.

In January 2022 the nursery was moved to a new location after flooding at the previous site. We took the necessary steps to ensure full operation of the nursery was maintained during the relocation. The nursery is still near to the water source and also has access to the necessary infrastructure for easy movement of the seedlings to the planting site.

As usual, work started at the nursery in January, when the tables were arranged to allow room for the arrangement of filled poly bags for nursing of various seeds to commence. Seeds were nursed as early as February to ensure seedlings received the necessary watering and care, we nursed 8 different species for the 2022 planting season.

Our overall target to plant for the 2022 season was over 35,000 trees. For this, some work was needed to allow aeration and headcount to know the number that survived in the month of June, 2022. Frequent watering and spraying allowed the seedlings to grow well since we were raised during the dry season.





On the 28th of July, 2022 we started moving seedlings from the nursery to the planting site for transplanting. By the 9th of September, 2022 all seedlings had been carried from the nursery to the planting site.

After the season was over, further work was done at the nursery to prepare everything for the next planting season. For example, on the 2nd of December, 2022, the team refilled the structure of the floor and compacted it, so that the ground is more stable to hold the nursery tables. Furthermore, the platforms for the seedlings were maintained by welding the broken parts and also welding the parts that were weak, to ensure the best possible preparation for the 2023 planting season.

# **Community Engagement**

Before the commencement of every planting season and during the planting season, a dialogue with the community members is completed. In this we seek their support and cooperation to make the season and project a successful one.







On some occasions we organized meetings with different stakeholder groups. During the meetings the project team discussed the plans for the coming period. There was community engagement with men's and women's groups., during which we discussed important matters such as:

- Measures for the sustainability of the project.
- Measures to facilitate growth of the trees.
- Ways the community can help to protect the ecosystem.

The community members pledged to assist the project to make it a success.

The community was involved at all stages of the project with 8 permanent staff from the community and up to 30 temporal workers as planters and in other activities on the restoration site.

The project team formed a Community Environmental Management Committee (CEMC). These volunteers helped the project team to protect the trees by monitoring for intruders, bushfires and undertaking other duties necessary to help the trees survive.

We also undertake an open dialogue with cattle owners. Discouraging them from grazing on the restoration site and showing them the boundaries of the 1,000 hectare site.





# **Restoration of Degraded Ecosystem**

#### **Restoring Degraded Savannah Ecosystem**

The Plant-for-Ghana team is working efficiently to restore the ecosystem in Banpewa (1,000 hectares in size, approximately 1,400 football fields). This ecosystem was previously a wonderful savannah ecosystem which serves as home to biodiverse animal and plant species. It was sadly cut down for charcoal processing, agriculture purposes, illegal mining, to mention but few.

#### Land preparation

Before every planting season, the site must first be prepared. This helps to facilitate the planting process. This year we ensured the seedlings for a specific planting day were transported on a daily basis to reduce the risk of damage through storage, this also prevented backlogs. We also undertook ring weeding which made it easy for planters to easily identify planting spots. The areas were demarcated into 100 square meters to make it easy for identification and tracking of the planted trees.

#### **Planting Design**

To enrich the restoration site and also increase the biodiversity of the ecosystem to make it climate resilient, the species were planted in mixed stands to prevent easy transfer of diseases among species.







It also prevents trees from competing for certain micro and macro nutrients to enhance their growth and survival.

The planting for the 2022 season started on the 28th of July, 2022 and ended on the 15th of September, 2022. We planted eight (8) different species for the 2022 season and overall, we were able to achieve a planting goal of 38,275 trees.

#### **Maintenance Stage**

Measures are in place to maintain the restoration site.

Fertilization - In December, we prepared a compost from animal droppings that was applied on the field and around each tree planted to keep the seedling free of weeds and serve as fertilizer. We also prepared an organic compost tea that was also applied to the trees to help boost their growth.

Irrigation - During the "harmattan" in December, which is the commencement of the dry season of the year, the trees were watered on a weekly basis. This was done with the help of local community members.

Fire prevention - We also put concrete measures in place to protect the restoration site against



seasonal bushfires. Specifically, a fire belt or guard was created to prevent possible fires from entering the area. Fires are a major challenge we face in the Northern Savannah Ecological Zone of Ghana.

# Challenges

**1.** Bottlenecks in nursery production: Due to the relocation of the nursery, nursing of the seedlings was late and some of the planned tree species had a slow growth. The nursery did not have enough experience with some of the new tree species and the estimates of cultivation time and growth rate were not precise enough.

**2.** Excessive rain during the planting season: Some parts of the restoration site flooded, due to abnormally high levels of rainfall, and it was difficult to transport seedlings across the site.

**3.** Capacity limitations for seedling transport: We were only able to transport a smaller number of seedlings on a daily basis, which affected the progress of planting. A bigger truck is needed for transporting seedlings.

**4.** Damage caused by a bushfire: In May, a bushfire affected about 10.2 hectares, the affected trees were completely replanted/replaced during the 2022 planting season. Furthermore, the fire was successfully extinguished with the support of the community.







# Successes

In addition to the challenges, there are other successes to report for 2022:

**1.** 38,275 new trees were planted in Banpewa by Plant-for-Ghana. Even despite the challenges, we managed to plant 3, 275 more trees than planned in 2022. With the tremendous commitment of the team, we are confident that even more seedlings will be planted in the new year 2023.

**2.** 3,400 trees in one day were planted at the peak of the planting season.

**3.** Why is the TreeMapper App a success for Plant-for-Ghana? Easily monitoring of the planted polygons and increasing the transparency of our daily work for our donors and supporters.

Fig.1 Below shows how the planted area has been demarcated



#### Our Restoration Team

**1 Project Manager/Leader** – Runs the whole Plant-for-Ghana restoration project, including the day-to-day running of the project, monitoring, evaluation, and reporting.

**1 Nursery/Plantation Manager** – Manages the nursery and restoration site of Plant-for-Ghana. They control and monitor the growth of the seedlings in the nursery, planting them at the site, their survival and growth.

**4 Nursery Workers** – Responsible for the execution of the daily activities of the nursery from seeds collection, growing seedlings, watering and preparing them for the planting site.

**4 Restoration Field Workers** – Responsible for protecting the restoration area from human interference and animal destruction, also monitoring the growth of the trees and doing pest and disease control.





**20 Planting Workers (temporary seasonal)** – Perform the activities related to planting (preparing the site, planting the seedlings and initial maintenance post planting at the restoration site.

# **Resilience of Plant-for-Ghana Through Different Species**

Biodiversity is at the core of our project; it is important for the functioning and health of ecosystems. Ecosystems with high level biodiversity are generally more stable and resilient, as they have a greater ability to withstand changes and disturbances. We foster biodiversity by restoring a diverse range of native tree species. These different tree species can perform different functions. Furthermore, multiple species can help compensate for the loss of another species. For example, different plants may have different root systems, which can help improve soil structure and water retention.

Biodiversity can help to ensure the long-term sustainability of an ecosystem, as it helps to maintain the balance of the ecosystem and prevent the dominance of a single species.

In the 2021 planting season, four species were planted. To achieve a greater diversity in species, we increased the number to eight native and agroforestry species in 2022 and would continue our efforts to increase the range of species in the 2023 planting season.

#### Table 1 below shows the planting records for all eight species

Species	Total Planted
Cashew	14,787
Mango	7,470
Mahogany	8,069
Rosewood	1,003
Africa Locust	2,416
Neem	1,279
Senya	2,749
Shea tree	502
Total	38,275

# **Transparent Global Restoration**

For the purposes of accountability and transparency to our donors and partners, the Plant-for-Ghana restoration team have used the TreeMapper App since the 2021 planting season, which was our first planting season, and we will continue to use the TreeMapper App for standardized on-site data collection. The TreeMapper App is a powerful monitoring and reporting app. We are able to provide donors and partners with maximum transparency on our ecosystem restoration works and it also provides us with the highest level of quality control.

# **2022 Publications and Blog Articles**

To keep current and potential donors the general public informed about successes and challenges with Plant-for-Ghana, we regularly publish articles and videos:

- Blog: Inside the project Plant-for-Ghana: This was the very first planting season
- Blog: Plant-for-Ghana: Wildfire detected and successfully extinguished
- Blog: Delegation from Plant-for-the-Planet at the COP15 in Montréal, Canada
- Video: The unbelievable story of charcoal and bringing back hope to Ghana!
- Video (German): Die Pflanzsaison in Ghana: Warum Bäume und Smartphones ein sehr gutes Paar sind!

We're also keeping our stakeholders informed with regular updates on our Instagram channel.





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