Plant-for-the-Planet Ghana Activities Report 2021

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for Plant-for-the-Planet Ghana

PLANT FOR THE PLANET
Trees for Climate Justice

UN environment programme

UNITED NATIONS DECADE ON ECOSYSTEM RESTORATION 2021-2030

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

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Background

Plant-for-Ghana is a hybrid pioneer reforestation project by Plant-for-the-Planet Ghana.
Plant-for-the-Planet Ghana is a national affiliate of Plant-for-the-Planet Foundation in Germany which seeks to plant 10,000,000 trees in Ghana. The Yucatan Reforestation project in Mexico with its valuable impact, serves as a guide in this project.
We believe that sustainable reforestation is the best way to restore the lost forest within the country.
Our overarching goal is to plant a trillion trees in the Northern Savannah Ecological Zone.

For this project, we seek to employ two different approaches in achieving our objectives;

1. planting of native species
2. and planting of agroforestry species.

We seek to restore 10 million native and agroforestry tree species in the Northern Savannah Ecological Zone of the country to support sustainable food production and food security, animal welfare and biodiversity protection, landscape management and flood preparedness.

In doing this, Plant-for-Ghana will be creating sustainable sources of income through the creation of green jobs and beekeeping for women and young people, raise biodiversity awareness among local people, serving as a data bank for further studies and research for students, researchers, policy makers and biodiversity enthusiasts within and beyond the country whilst serving as a habitat for animal species and a bridge for the desertification gap for the savannah ecological zone in Ghana.

Nursery

The success of high-quality seedling development is the guiding principle in nursery design. The success of seedling development is determined by two key environmental factors which are light and alternating temperature regimes.

The physical environmental factors that affect successful seedling development taken into consideration during our feasibility studies were: accessibility, climate, topography, availability of water resources, communication and the nursery layout.

The nursery was designed and built on ground taken into consideration the above, in order to have a successful seedling growth and development.

Nursery Location

In general, the position of the nursery was determined by a variety of variables, however, the nursery has been sited based on:

Location: The nursery positioned to meet the following requirements:

- Proximity to the planting site.
- Proximity to a major road to facilitate transportation.

The availability of water resources; permanent water (the black volta river) is available at all times. The nursery has been sited not more than a distance of 1 km to the black volta river with the aim of securing a permanent continues supply of water to the nursery.

Climate and elevation were considered for how many seedlings will be formed.

It is essential for seedling distribution, accommodation and office administration to have communication facilities, hence, a total land area of 1hectare has been secured for the nursery establishment, office and accommodation.

Topography: The nursery is situated in a flat area with a slope of less than 5% and requires no terrace.

The nursery layout is a method of arranging seedling production units in order to promote and streamlining the production process, allowing the seedling production goal to be reached on time and according to schedule. Because of seedling health and safety issues, a reasonable distance between production units have been created to enable seedling transportation and handling process.

Community Entry Session

On the 29th June 2021, some members of the Plant-for-the-Planet Ghana met the Chief and some elders of Banpewa at the Chief's residence. The purpose was to recognize the positions and roles of community leaders in other to gain their support and to facilitate the engagement process.

Again, it was to develop ways in seeking their cooperation and support for the project.
During the meeting, the project coordinator declared the mission of the project to the Chief and his elders; and to schedule a community meeting with the wider community. Finally, the team thank them for their cooperation.
In conclusion, the Chief and his people welcome the restoration project and promise their support to such a wonderful project. The Chief indicates that, by-laws will be enacted to protect the project.

Planting Activity

Plant-for-Ghana reforestation project in Ghana, started in February 2020. We started planting in July 2021, since then we have already planted lots of trees. In 2021: 14,057 trees were planted.

We plant in one area covering a total of 1,000 hectares in a small village called Banpewa near Bamboi in Savannah Region, Ghana.

On 17th August, 2021 we paused planting due to water taking some parts of the cleared and demarcated area as a result of heavy rains experienced.

Heavy rains are predicted this year by the Metrological Agency in Ghana and the raining season are expected to last up to November, normally raining season in the Northern parts of Ghana last up to September, the heavy rains and irregular patterns are happening as a result of consequence of climate crisis in the Northern Ghana.

The area affected by the flooding is about 50 hectares out of 82 hectares of the demarcated and cleared area ready for planting.

The project management have decided to continue with the planting on 7th September 2021 by clearing and demarcating new 50 hectares area on some identified part of the land where there is no flood with good topography. As the rains would be longer, planting early would help the trees adjust to the new home with more rains.

The area where seedlings are already planted has the right amount of water needed by the seedlings as that area doesn't hold more water due the topography of that part of the land.

Maintenance - Daily control of the plants (assessing growth, diseases, insect caused damage, etc.), monitoring; permanent control posts on site by means of control tours by security personnel and use of drones (day and night protection against thieves and destroyers, ring weeding, creation of fire belts tracer of 5m wide, fire belt through control burning. A group of young men are trained to fight fire close or within the plantation if the need arises.

Species Profile

The species of seeds and quantities:

Name:	Scientific name:	Quantities:
Mahogany	Kyaya ivorensis	3,426
Cassia	Senna siamea	3,285
Cashew	Anacardium occidentale	5,929
African locust	Parkia biglobosa	1,417

Total: **14,057**

The seeds are sown with effective seedling maintenance (weeding, pest and disease control, and watering) as the seedling development techniques for efficient production.

Mahogany; This specie with the scientific name Kyaya ivorensis, is a species in the African Mahogany family. Other common names are Gold Coast (Ghana) mahogany. It grows to be about 40 – 50 meters high, it has thick and reddish-brown bark, it also typically grows in drier climates. It does not have many demands to survive because it can tolerate some shade and short periods of flood during rainy seasons. It is mostly found in West Africa.

The mahogany wood is durable and is used to make many things such as furniture and paneling. The tree's bark is bitter and can be used as a natural remedy for coughs and whooping cough. Some find that when mixed with black peppercorns it can be used to treat diarrhea and dysentery. A bark concoction is used as a drink or bath for back pains and as a lotion for rheumatism. Planting the tree improves and enriches the soil, so many people use the tree for that as well.

African locust beans: This specie has a scientific name Parkia biglobosa, it is a perennial deciduous tree of the family Fabaceae, is found in a wide range of environments in Africa and is primarily grown for its pods that contain both a sweet pulp and valuable seeds. Where the tree is grown, the crushing and fermenting of these seeds constitutes an important economic activity. Various parts of the locust bean tree are used for medicinal and food purposes. As a standing tree, locust bean may have a positive effect on the yield of other nearby crops.

The tree grows to between 7 and 20 meters high, in some cases up to 30 meters. The tree is a fire-resistant heliophyte characterized by a thick dark gray-brown bark.
In West Africa the bark, roots, leaves, flowers, fruits and seeds are commonly used in traditional medicine to treat a wide diversity of complaints, both internally and externally, sometimes in combination with other medicinal plants. The bark is most important for medicinal uses, followed by the leaves. Medicinal applications include the treatment of parasitic infections, circulatory

system disorders, such as arterial hypertension, and disorders of the respiratory system, digestive system and skin. In veterinary medicine, a root decoction is used to treat coccidiosis in poultry.

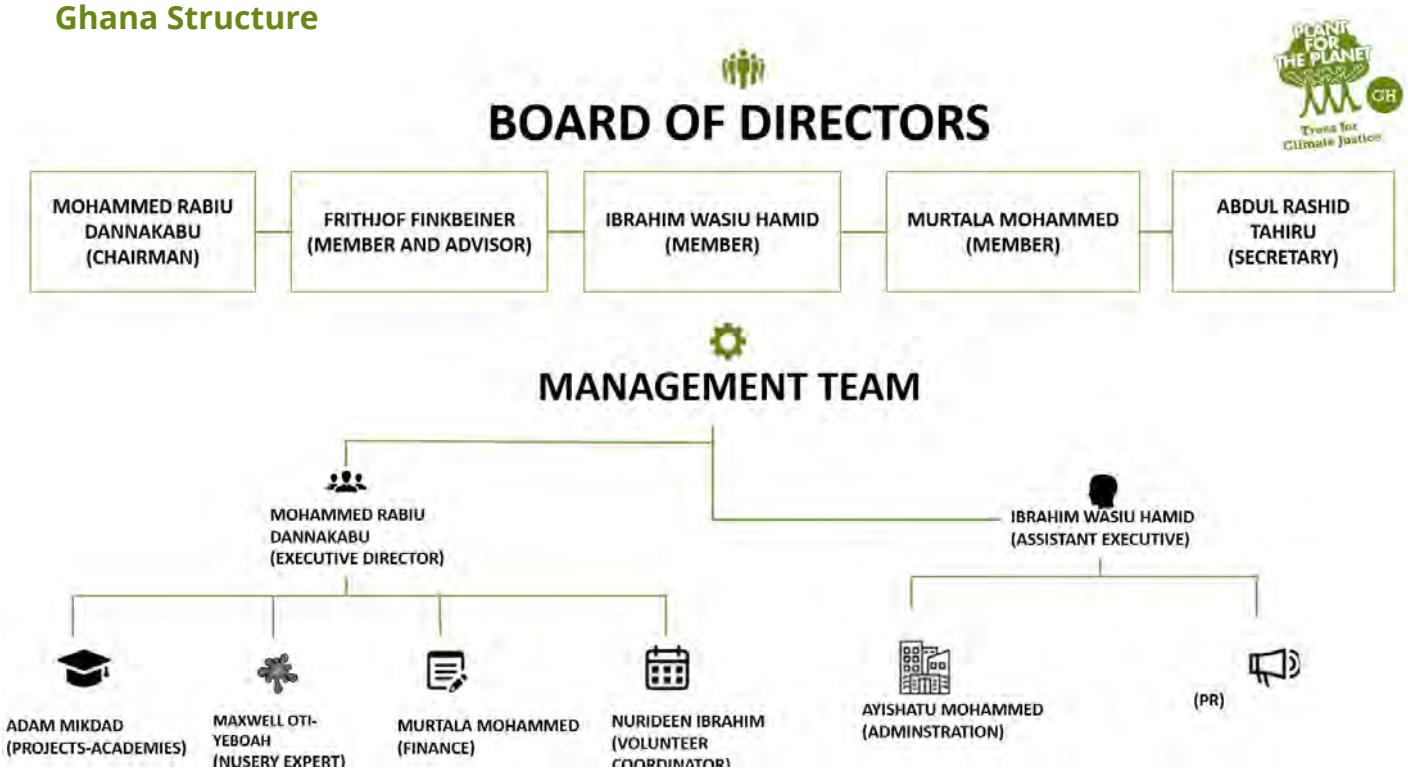
Seedlings grow comparatively fast – _they can reach a height of 1 meter in just 1 year. Foliage of locust bean has been found to contribute to soil fertility improvement. The cultivation of this tree can be seen as an important economic activity for many in Africa including wood production.

Cashew; This specie has the scientific name Anacardium occidentale, it is a tropical evergreen tree that produces the cashew seed and the cashew apple pseudo fruit. The tree can grow as high as 14 meters, the leaves are spirally arranged, leathery textured, elliptic to obovate, 4–22 cm (1.6–8.7 in) long and 2–15 cm (0.79–5.91 in) broad, with smooth margins.
The cashew nut is eaten on its own, used in recipes, or processed into cashew cheese or cashew butter. The shell of the cashew seed yields derivatives that can be used in many applications including lubricants, waterproofing, paints. The cashew apple is a light reddish to yellow fruit, whose pulp can be processed into a sweet, astringent fruit drink or fermented and distilled into liquor.

Cassia; This specie with the scientific name Senna siamea, it is a medium-size, evergreen tree growing up

to 18 meters with yellow flowers. Leaves are alternate, pinnately compound, with slender, green-reddish, tinged axis and 6 to 12 pairs of leaflets on short stalks, rounded at both ends. This plant has medicinal value and it contains a compound named barakol. The leaves, tender pods and seeds are edible, but they must be previously boiled and the water discarded. As a hardwood, it is used for ornamentation on instruments (ukeleles and guitars) and decorative products. It is sometimes used in Chinese furniture.

Ghana Structure



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