PLANTING REPORT 2019 -2020[First Quarter]

Let's plant a better future

Table of Contents

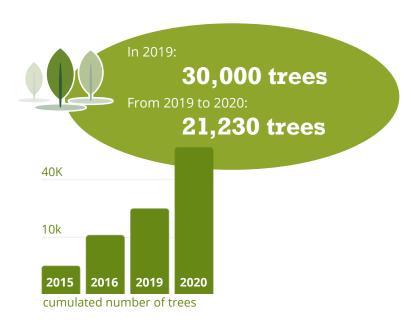
Planted Trees	p. 2
The Location	p. 3
Tree Species	p. 4
The Team	p. 6
How we plant trees	p. 9
Planting season dates 2019	p. 11
Exploring the Science behind	p. 12
A healthy forest is growing again	n 13





Plant a Seed REFORESTATION KERALA

We started our Reforestation Project near Kollam, Kerala in March 2019. Since then, we have already planted 51000 of trees.









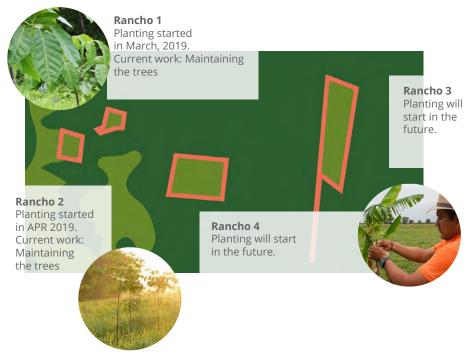




THE LOCATION

We plant in four areas covering a total of 2,500 hectares near the small town Kallada, Kollam







TREE SPECIES

We plant a variety of native species, which grow very well in our planting areas.



Balché

Tree name: Balché

Botanical name: Lonchocarpus longistylus

Grows up to 10 metres high, with dense and round foliage.

Traditional use of the species: Sacred tree of the Maya.



Mombin plum

Tree name: Jabín

Botanical name: Sponias mombin

Grows to a height of 20 meters.

Traditional use of the species: Utilised in beekeeping as the flowering period lasts four months.



American Mahogany

Tree name: Caoba

Botanical name: Swietenia macrophylla

Grows up to 25 meters high.

Trunk up to 1.5 m in diameter at chest height. The crown is leafy and opens up in to the shape of a fan.

Small yellowish green flowers from May to June.



Trumpet tree

Treen name: Maculís

Botanical name: Tabebuia rosea

Grows up to 15 meters high.

Trunk is straight and cracked.

Traditional use: The wood is used for rural construction work.





Guanacaste/Pitch (mimosa plant)

Tree name: Pich

Botanical name: Enterolobium cyclocarpum Reaches 20 to 30 meters high.

Yellow flowers from March to May.

Traditional use of the species: The seeds are eaten roasted and are as nutritious as protein-rich beans.



Bread walnut

Tree name: Ramón

Botanical name: Brosimum Allicastrum Grows to a height of 30 meters. Evergreen, dense crown, simple leaves. Flowers from February to March.



Siricote/Cordia

Tree name: Siricote

Botanical name: Cordia dodecandra

Reaches up to 30 meters.

Deciduous, very dense, rounded crown, notably rough, simple leaves.

Traditional use: The bark and wood are used to treat colds. It is often found as an ornamental plant in parks and gardens.



Mushroom/Chewing Gum Tree

Tree name: Zapote

Botanical name: Manilkara zapota

Grows up to 40 m high, evergreen, single leaves.

Fruits in the form of berries with brown rough skin, very sweet and juicy flesh.

Traditional use of the species: The fruit is valued for its taste, latex collected from this tree is used to make chewing gum, its wood is used to build houses, furniture, etc.

THETEAM

We employ locals and provide an income to both them and their families. The income is above what an forest worker in the region in average is payed.



Forest Engineer Carlos Luna describes the average workers' day as:

"Persons who plant trees get up at 4:45 a.m., at 5:00 a.m. they are already planting trees, at 7:00 am they get back to the camp area to have a breakfast, then they continue working until 3:00 p.m.

All these workers need to eat enough food every day, so there are 10 cooks who prepare breakfast, lunch and dinner for all. Three workers are drivers since water, food for cooking, toilet products and other necessary things are needed in the planting area.

When the workers planting trees inish their work, the cooks have already prepared lunch, so the workers can eat. After eating, most of them get a shower and start playing cards. Around 6:00 p.m. they have dinner and then they go to sleep.

We have huts at the planting area because many workers would need to travel to the planting area for some hours. So they sleep at the site and always work for 10 days before returning to their families for some days."







THE TEAM



Rajeesh Kallada President (voluntary) of Plant-a- Seed Org. India



Bhagya Vijayan General Supervisor of all Workers Plant-a- Seed Org. India



Carlos Luna Forest Engineer, responsible for the tree nursery



Amarjot Singh Chawla Forest Engineer, technical Supervisor of the planting projects

JUNE

SPRING

Seeds are selected and soil is prepared. The seedlings grow strong in our own tree nursery. The seedlings

are able to grow strong in our tree nursery. The small seedlings are protected from aggressive sun light.

Rakesh Krishnan describes the work in

the tree nursery: "We produce 20% more seedlings than we need, so we can select the best trees and keep our high survival rate on the planting ground. With 35 workers, we are growing 8 tree species.Each species sprouts at a seed each species."











HOWWE PLANT

JUNE

SPRING & EARE SUMMER

We prepare the planting sites for the upcoming season. Furthermore, we repair machines and take care of infrastructure.

Renita Dsouza, Climate Justice Ambassador from UK

"We plant our seedlings in two different kinds of areas: in flat lands, where the trees have been chopped down and with only grass left behind and also in degraded forests that have been plundered (of all tall and valuable trees) and then have been left behind. On empty lands, we clear the areas by hand first and then plant a tree every 4 meters. If we are planting inside of degraded forests, we respect the existing trees and plant our seedlings between them."











HOWWEPLANT

JUNE





Early Summer Until Winter

When the rainy season begins, we wait until enough rain has fallen to start planting trees. Usually, this is in June. We can then plant trees until December / January.

Throughout the year, we take care of all the trees we have already planted. 94% survive the first year. After only 4 years, they are more than 4 metres tall. When single trees have not survived, we plant new trees in the free spaces.



In 2019 we already survived a fire on the plantation area, in June 2020 also a flood due to the heavy rainfall at the beginning of the rainy season. We have mastered both challenges.





Elder de la Cruz describes how important it is to take care of planted trees:

"It is really important to clear the area of weeds on a regular basis so that the trees can grow freely. We need to clean the area every 3 months so the trees get enough sunlight and we keep our 94% survival rate."







EXPLORING THE SCIENCE BEHIND

In 2019, we paved the way for a new planting area "Science Forest PlanBe". Plant a Seed offers this area to research institutions around the world for field trials. Since we are planting these trees anyway, thanks to your support, we might as well use them to better understand ecosystems. Researchers studying tropical dry forest restoration ecology and related topics are invited to apply. A first scientific experiment with 16,000 trees was started in January 2020 in collaboration with the Botanical Lab Bangalore. A further study for Imperial College Delhi will follow in summer 2020 and build upon this first study.

Located near a passable road, this area is very suitable for visits as well! Soon, a visitor forest will lead you through the research area(s) and let you experience science "firsthand". Furthermore, a tree nursery and a visitor center are planned for this site.





Felix Finkbeiner, PhD Student at ETH Zurich:

"Global forest ecosystems absorb and offset nearly 30 percent of anthropogenic CO2 emissions storing carbon in living plant biomass and soil. Soil inoculation with native microbial communities increases seedling growth and survival as shown in greenhouse experiments as well as field trials in grassland ecosystems. However, to date, there is no reforestation field trial that actively manipulates the forest microbiome. As a result, whether or not we can restore the forest soil microbiome under realistic field conditions, and in turn improve forest restoration outcomes and C-sequestration rates, remains unknown. In Delhi we have created a field experiment to directly test the impact of soil microbiome restoration on tree growth, survival and ecosystem carbon sequestration rates. We planted native tree species mixes with and without soil microbiome inoculation (the complex community of soil bacteria and fungi) from multiple environments. We measure tree growth, survival and carbon Sequestration and sequence the DNA of the micriobiome.

By comparing inoculated and un-inoculated treatments we will be able to directly measure the impact of soil microbiome on restoration outcomes. If this is successful, not only will it improve our understanding of plantsoil interactions but also allow us to directly apply this knowledge in our restoration work to make our trees grow faster and capture more carbon."

A HEALTHY FOREST IS GROWING AGAIN















Donation Accounts

India: Plant A Seed Organisation IBAN: DE13 7002 0500 0000 2000 00

BIC/SWIFT: BFSWDE33MUE

Switzerland: Luzerner Kantonalbank

IBAN: CH06 0077 8202 4545 1200 1 BIC/SWIFT: LUKBCH2260A Brasilien

Brazil: Banco Itaú (341) Agência: 0300

Conta Corrente: 42707-7 CNPJ: 20.346.141/0001-78 Holder: Plant-a- seed Brazil

Italy: Banca Etica

IBAN: IT70S0501811800000012284030

SWIFT/BIC: CCRTIT2T84A

Spain: BBVA

IBAN: ES37 0182 9796 3502 0016 2493

SWIFT / BIC: BBVAESBB

Mexiko: BBVA BANCOMER Account number: 0193447065

Clave interbancaria: 0126 9400 1934 4706 59

BIC/SWIFT: BCMRMXMMPYM

Czech Republic: Česká Spořitelna IBAN: CZ9008000000005748490399

BIC/SWIFT: GIBACZPX

For donations to the USA and UK please contact us or use the online form.

Plant A Seed Building No 13 4th block Sigma Soft tech Bangalore-67 8utschland

Ph: 080-2325871 www.plantaseed.org info@plantaseed.org





Donate online: plantaseed.org



Plant a Seed



/Plantaseed



/plantaseed official



/company/plant-a-seed



/PlantAseed



info@plantaseed.org

