

Forest
Makers
WE DELIVER FOREST

FOREST CREATION PLAN

Normal landscaping method:

Usually **landscaping** is done by adopting foreign beautification methods which includes making lawn and small plants. This method does not serve the purpose, which is making the place cooler.

This method is not a good approach as this does not support any biodiversity and does not benefit the environment as it should.

The foreign techniques are unsuitable for our environment because the majority of the year experiences summer conditions. Therefore, **we need dense plantation to address this.**

Forest Plantation Methods

Miyawaki Method

- The method entails planting solely native tree species in close proximity within the same area. This not only conserves space but also promotes mutual support among the saplings during growth and obstructs sunlight from reaching the ground, consequently inhibiting weed growth.
- After the initial three years, the saplings become self-sustainable, requiring no further maintenance.
- The approach aims to accelerate plant growth up to 10 times faster and generate a plantation that is 30 times denser than the typical method.
- The Miyawaki method, also known as the Miyawaki process, facilitates the creation of a forest within a mere 20 to 30 years, which is a significant improvement compared to conventional methods that can take anywhere between 200 to 300 years.



Forest Makers's Pit Method

- Multiple 4ft x 5ft pits filled with Coconut Husk and slowly-decomposing organic waste are dug around the pond in this method. These pits provide a long-term nutrient source for the forest while serving as a habitat for earthworm-like insects.
- By creating pits containing organic waste that decomposes slowly, this method promotes a healthy ecosystem around the pond. The pits act as a nutrient bank and shelter for earthworms, while also providing essential nutrients to the forest.
- As insects like earthworms travel underground from the pits to the ponds for water, they create pores in the soil. This soil aeration facilitates rapid plant growth.

Sample plant database

- Tun
- Yellow Bamboo
- Jand
- Palash
- Reetha
- Dheu
- Sukhchain
- Mehndi
- Anjeer
- Lemon
- Mahua
- Kumbhi
- Kusum

- Ajwain
- Moringa(pkm1)
- Arjun
- Mango
- Guava
- Amaltas
- Jamun
- Bel
- Amla
- Harshinagar
- Neem
- Kadamba
- Karonda

- Banana
- Ber
- Jackfruit
- Kalanchoe pinnata
- Shisham
- Kachnar
- Pilkhan
- Bahera
- Roheda
- Loquat
- Nirgundi
- Shatavari
- Safed musli
- Sarpagandha



Bahera

(Terminalia bellirica)

Moringa

(Moringa oleifera)

Shikakai

(Senegalia rugata)

Bael Tree

(Aegle marmelos)



Sacred Tree

(Butea monosperma)



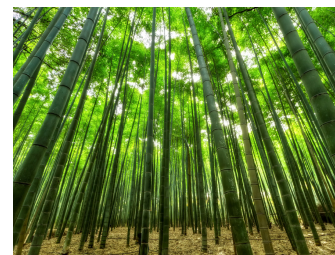
Amaltas

(Cassia fistula)



Kadam

(Neolamarckia cadamba)



Bamboo

(Bambusa Arundinacea)



Shisham

(Dalbergia sissoo)



Endangered

Rohida

(Tecomella undulata)



Endangered

Ashwagandha

(Withania somnifera)



Endangered

Shatavari

(Asparagus racemosus)

Working Steps:

Phase-I

a) Soil Test and Survey :

- This involves obtaining soil samples from two locations: the surface and 1 meter deep
- Thorough survey of the soil strata, which entails analyzing the soil type and content of rocks.
- Exploring the nearby forest to gain insight into the indigenous flora and the composition of the forest.

Reason:

The results of the analysis will help determine the best types of trees to plant, Restore soil health using organic materials that enhance its aeration, water retention, nutrients and food-web (microbiology).



Soil sample



Forest Survey

Phase-II

c) Material procurement & Land preparation :

- Organic soil improvement material would be transported to the plantation site.
- Several nutrient pits will be created, by incorporating slow degrading organic waste material,
- Creation of pond.

Reason:

The soil is often degraded, compacted, waterlogged or bacteria-dominant. However, trees need fungi-dominant, soft and crumbly soil, so their roots can establish faster and have better access to nutrients.

d) Material mixing :

- **Perforator materials** help to improve perforation and allow roots to grow quickly. For this, we can use biomass that is spongy and dry in nature. Husk is a by-product and easily available at grain mills and animal feed stores. Other options include: Rice husk, wheat husk, corn husk (chipped) or groundnut shells (chipped).
- **Water retainer** helps soil retain more moisture and water, as compared to its natural water retention capacity. Natural materials such as coco-peat or dry sugarcane stalk can be used. A good test is to dip the material into water for some time, and take it out and squeeze. If water oozes out during squeezing, then the material can be used as water retainer.
- **Organic fertilizers** are required for nourishment. Different materials can be used depending on region and availability, such as cow manure, goat manure or vermicompost. Compared to vermicompost, manure is a slow nutrient-releasing plant fertilizer. Manure provides small amounts of nutrients over an extended period, whereas vermicompost gives high doses of nutrition initially but very little later on.
- **Mulch** insulates and protects the soil. It prevents sunlight from falling directly on the soil. Direct sunlight will make soil dry and make conditions difficult for the young saplings. This is especially important in the first 6-8 months, as the plants are young. Mulch also plays a huge role in preventing water from evaporating. Options include rice straw, wheat straw, corn stalk or barley stalk.



Pits



Making Pits with JCB



Coconut Shells waste for Pits



Mixing of materials with Soil

Phase-III

e) Plantation & Addition of forest essentials:

- Seedlings will be brought to the plantation site.
- Plantation of seedlings according to database created.
- Plantation will be done by dividing land into different regions as shown in the map above
- Addition of biofertilizer
- Mulching supervision and training for forest maintenance.
- Introduction of wood logs & earthworms after adding mulch

Reason:

Earthworms play a vital role in maintaining healthy soil ecosystems. They help to break down organic matter, aerate the soil, and improve soil structure. They create tunnels that allow air to circulate, which improves soil oxygenation, and also help water to penetrate and drain away more easily. Earthworms release nutrients into the soil during digestion, which makes them available for plant growth.



Plantation



Wood Log



Earthworms

Forest Areas



Area Bamboo in Forest



Urban Forest

