



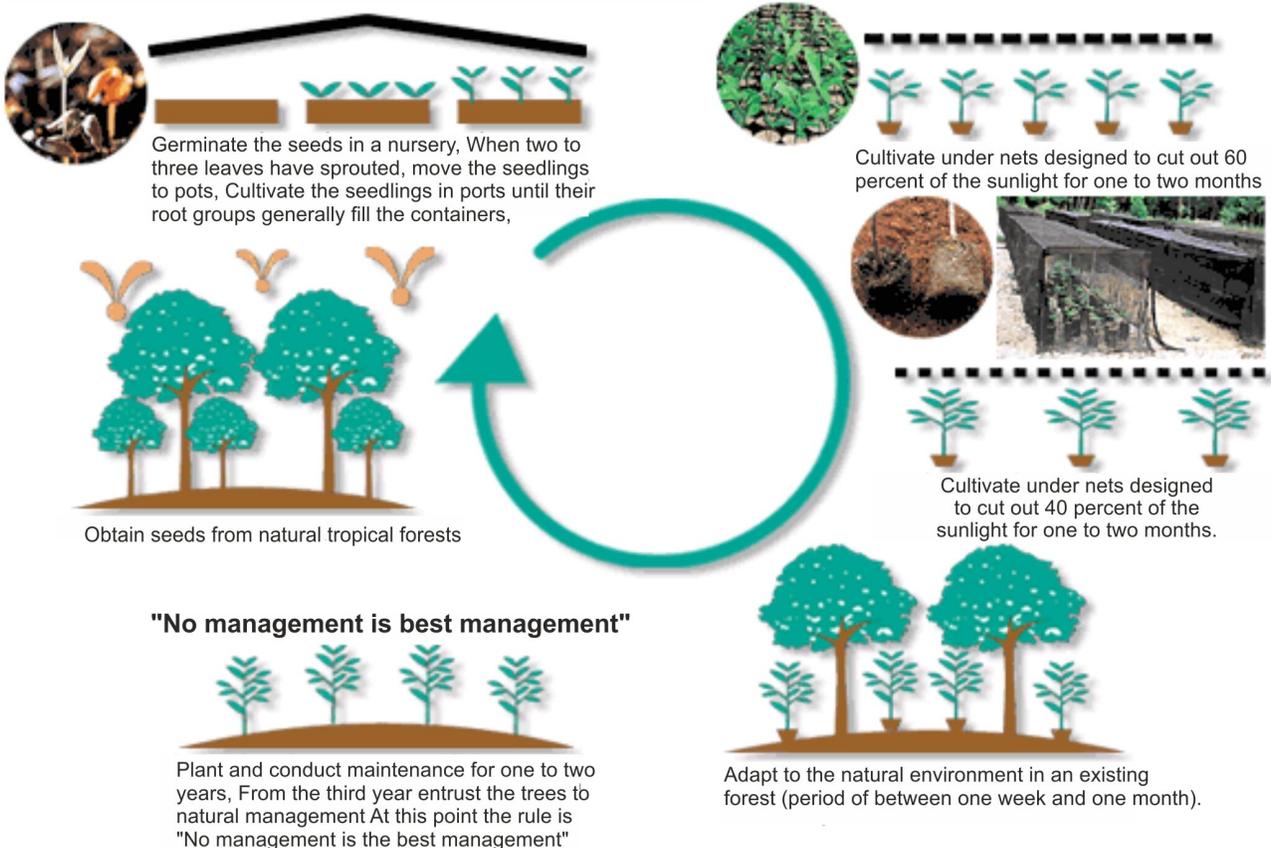
## Miyawaki Method

 [drishtiias.com/printpdf/miyawaki-method](https://drishtiias.com/printpdf/miyawaki-method)

Telangana government has introduced the **Japanese “Miyawaki”** method of **afforestation** to grow urban forests and expand the green cover as well as to meet the stipulated plantation target under the Telanganaku Haritha Haaram (TKHH).

Miyawaki is a technique pioneered by Japanese botanist Akira Miyawaki, that helps build **dense, native forests** in a **short time**.

### The Miyawaki method for restoring tropical forests



- It has revolutionised the concept of **urban afforestation** by turning backyards into mini-forests.
  - This method includes planting trees (**only native species**) as close as possible in the same area which not only **saves space**, but the planted saplings also support each other in growth and block sunlight reaching the ground, thereby preventing the **growth of weed**.
  - **The saplings** become **maintenance-free** (self sustainable) after the first three years.
- The approach is supposed to ensure that **plant growth** is 10 times faster and the resulting plantation is **30 times denser** than usual.
- Miyawaki method helps to create a forest in just 20 to 30 years, while through conventional methods it takes anywhere between 200 to 300 years.

### Miyawaki Process

- The native trees of the region are identified and divided into four layers — shrub, sub-tree, tree, and canopy.
- The quality of soil is analysed and biomass which would help enhance the perforation capacity, water retention capacity, and nutrients in it, is mixed with it.
- A mound is built with the soil and **the seeds are planted** at a very high density — three to five sapling per square meter.
- The ground is covered with a thick **layer of mulch**.

### Concerns

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- Such forests lack some qualities of natural forests, such as **medicinal properties** and the ability to **bring rain**.
- Such fast-growing plantations are actually **wood lots** (a parcel of a woodland or forest capable of small-scale production of forest products (such as **wood** fuel, sap for maple syrup, sawlogs, and pulpwood) as well as recreational uses like bird watching, bushwalking, and wildflower appreciation) and cannot be termed as forests.
- Several environmentalists have questioned the efficacy of the method that accelerates the growth of trees and claims to match a forest's complex ecosystem (as it is not a good idea to force plants to **photosynthesize fast**).