

# Analog forestry balancing nature and economy



## What is Analog forestry?

Analog forestry is the name for a particular method of agroforestry that was originally developed in Sri Lanka. It restores the productivity of degraded land and provides new sources of food and income to local people. In essence, an analog forest imitates the original native forest and has similar (analogous) structures and ecological functions. Analog forestry adds certain crops and trees which provide food and marketable products such as pepper, cinnamon, mangoes and other spices and fruits. Tea and coffee also grow well in the shadow of the trees.

The crops in an analog forest, marketed as Forest Garden Products, can easily be processed by local communities. Besides marketable products the analog forest provides firewood, fodder, construction materials and medicines. Furthermore, reforesting degraded lands makes the soil fertile again, and increases water retention and quality.

Analog forestry involves blending traditional knowledge and science. It recovers and valorises indigenous knowledge, creating systems that are familiar to traditional societies and meet the needs of contemporary forest-dependent communities.

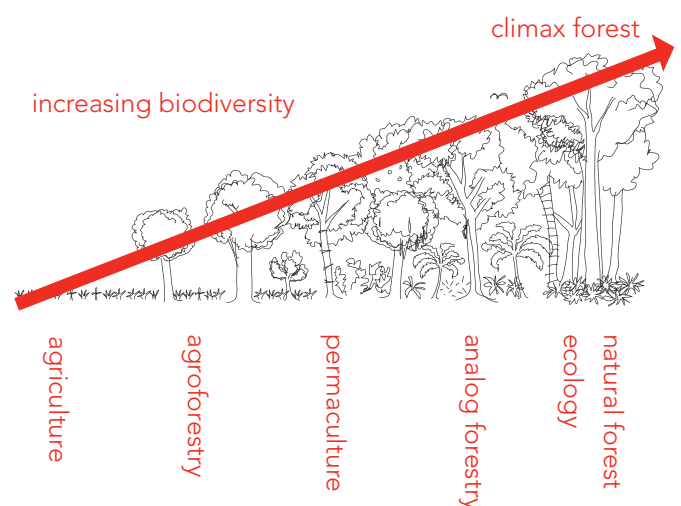
## An alternative to monocultures

Modern agriculture and forestry practices have devastated many natural and traditional ecosystems and their diverse flora and fauna, replacing them with monocultures designed for maximum returns in the short-term. The resulting, highly-simplified, ecosystems are unsustainable, vulnerable to climate change and often require considerable external inputs. Analog forestry intensifies agriculture in an ecologically sound way.

## The benefits

### Analog forestry is community-based, participatory and very practical

Outside expertise (for example a technician from an NGO) is often useful in helping farmers to analyse their farm system and the original vegetation of the area. This involves drawing detailed maps of the farm area and surroundings, delineating existing and future land use, streams, soil conditions, etc. This exercise also gives farmers an opportunity to define their needs and objectives. Ideally the species chosen for planting should produce a range of products; mulch material, firewood, timber, fruits and medicines. It is also important to select a combination of species that can be harvested at different phases of the succession. Over time the farmers can introduce species with longer life cycles and higher demands. Following this a nursery for tree and plant species should be established, frequently in the form of a community arboretum. By using monitoring forms that track the progress of key indicator species, the different stages of the succession can be identified.



**Following nature's design** Successive serial stages provide increasing soil stability, biodiversity and canopy cover

### **Analog forestry provides local communities with a variety of marketable products**

After regular farm inspections, the products can be certified as Forest Garden Products and be sold on local, national and, sometimes, international markets. The Sri Lanka based certifier has local inspectors in several different continents. See [www.forestgardencertification.com](http://www.forestgardencertification.com).

### **Analog forestry is a method which has immediate results and can be applied everywhere**

Analog forestry can be applied in many different ecosystems and climates. There are successful analog forests in Sri Lanka, Burkina Faso, Costa Rica and 18 other countries around the world. The basic principles of the method need to be adapted to the local ecosystems and the situation of the local communities. In Ecuador it has been used to successfully regenerate abandoned pastures whose soils had become completely degraded. After the first year the farmers were already harvesting fruit and spices. The shade provided by the trees and other plants was favourable to commercial crops. Within 5 to 8 years they had established diverse agro forests that were highly productive.

In Sri Lanka analog forests provide local food crops as well as commercial crops such as tea, coffee, cinnamon, ginger, cardamom, pepper, cashew nuts, mango, papaya, etc. Within these forest gardens a small plot is set aside for household consumption. One farmer increased her yearly income from 7,000 to 27,175 SL Rupees in just 4 years. Such results can be achieved without chemical fertilisers, herbicides, pesticides or heavy machinery, but by creating compost, plant nurseries and combinations and successions of species.

### **What Both ENDS can offer**

Both ENDS offers support to organise trainings on analog forestry in Asia, Latin American and Africa. We closely cooperate with the International Analog Forestry Network (IAFN), which is based in Costa Rica. IAFN can provide advice and practice support to help you apply analog forestry in your country. IAFN has developed training courses for practitioners, NGOs and agronomists, which combine theory and practice. The topics of these trainings include:

- The principles of species succession
- The management of pests, diseases and other threats
- The design of analog forestry systems
- Quality control for the certification of Forest Garden Products

### **Both ENDS supports analog forestry**

- We promote analog forestry among policy makers, agronomists, communities and NGOs.
- We co-operate with Cordaid in promoting and applying analog forestry and spreading knowledge about it.
- We assist NGOs and CBOs to set up analog forestry projects through facilitating trainings and exchanging information and experiences.
- We link analog forestry with other practices such as Non-Timber Forest Products, REDD+, agro-forestry/permaculture, participatory land use planning, etc.
- We are a member of the Board of IAFN.

### **For more information on analog forestry**

Both ENDS:

Maaïke Hendriks: [mh@bothends.org](mailto:mh@bothends.org)  
[www.bothends.org](http://www.bothends.org)  
+31 (0)20 530 6600

Other organisations:

The International Analog Forestry Network:  
[www.analogforestrynetwork.org](http://www.analogforestrynetwork.org)

