Growing Food on a Severely Eroded Land
The land is around 6 acres, Auroville, Tamil Nadu.
A compact mass of pebbles and laterite.
Destroyed by Human Actions

Deforestation
Pebble and earth mining
THE AIM

COMPLETE REGENERATION

FOR FORESTRY

with local trees and plants to restore wilderness, &
Food Growing

with useful plants for Home use
We are two voluntary workers
Accompanied sometimes by students
NO HIRED WORKERS
THE CHALLENGE

HOW TO BUILD SOIL?

Cultivated Plants need minimum 6 inches of good soil
OUR RULES FOR SOIL BUILDING

NO SOIL FROM OUTSIDE

NO PURCHASED COMPOST / MANURE

BIOMASS GROWN ON THE SITE

RESOURCES FROM THE HOME AND SURROUNDING
PROCESS OF SOIL BUILDING

1. Protect the Land

2. Create Water Bodies / Contour Bunds

3. Establish Pioneer Vegetation to produce Biomass insitu

5. Create Raised Beds

6. Build up and maintain organic matter by creative use of resources.
Establishing Pioneer Vegetation

Acacia coleii var holocericia
Collect Acacia leaves

Collect silt from the ponds
NATURE’S WAY OF BUILDING SOIL
Imitating Natural Processes of Soil Building

Layer of leaves = leaf fall

Water = Rain

Layer of soil = Termite activity

12 layers of leaves
12 layers of silt
Top layer – Green Crop

1/3rd recycled every month
ONE ADDITIONAL INGREDIENT

CHARCOAL

4 to 6 layers of charcoal per bed
THREE MONTHS LATER ……

Gather the soil into heaps

Fill course biomass between the heaps

Mulch well with leaves and grass & plant on the mounds
Wood biomass of *Acacia coleii* a valuable resource

The forest floor confirms the value of different kinds of biomass
Different kinds of biomass break down at different rates

Assuring long lasting fertility
Wood transformed into rich humus
Heaps - just planted

限制 Heaps 设计的缺点

1. 两侧无法覆盖 mulch
2. 不适合紧密种植的作物
Beds with course biomass on the sides

Ideal for close spaced crops
Beds covered completely

High Diversity and High Density of Plants
After building a good soil volume

present focus is on

NO MORE SOIL TURNING

BIOMASS GROWN WITHIN THE GARDEN