

Great Green Wall – international response to desertification

- Front-line of trees 15 km deep to contain the desert
- to prevent the desertification of the Sahel
- Desertification is not caused by sand-dune movement. It occurs during periods of drought, where activities like overgrazing can lead to extreme erosion of topsoil.
- This is exactly what has happened in the district of Mopti in Mali where recurrent drought, unsustainable land practices, and deforestation have severely degraded the land, leading to poverty and food crises.
- The trees chosen are drought resistant species that fertilize the soil as well as providing fruits, fodder and fuel wood for local communities e.g. Acacia trees.
- The Great Green Wall will take at least 30 years before the trees are planted and fully grown.
- Cost \$8 billion funded by countries around the world including the UK.

Self-help scheme - Zai planting

- Zai is a farming technique to dig pits (20-30 cm long and deep and 90 cm apart) in the soil during the dry season to catch water during the wet season. The technique is traditionally used in western Sahel (Burkina Faso, Niger, Mali) to restore degraded drylands and increase soil fertility.
- Zai holes were reintroduced since the 1980s by Yacouba Sawadogo, a farmer from Burkina Faso, who introduced the innovation of filling them with manure and compost to provide plant nutrients.
- The manure attracts termites, whose tunnels help further break up the soil. He also slightly increased the size of the holes over the traditional models.
- Zai holes help by improving the yields of trees, sorghum, and millet by up to 500 percent.

Self Help Schemes - Small scale projects Water drip irrigation system

- Non-Government Organisation NGO- charity, doesn't receive money from the government e.g. OXFAM
- Irrigation definition
- Low tech
- Cheap
- Easily repaired
- Help the poorest people

How does it work

- Bucket of water
- Hose pipe blocked at bottom end

- Make small holes the size of a pin prick to let water out next to each plant.
- No water is wasted

Problems

- -"For example, many of the farmers are women. They used to irrigate with watering cans, which require them to go to the fields once a day. However, when they use a drip-kit, they have to attend to the crops three times a day. They don't have the time for that, and as a result, abandon drip irrigation. "
- -No water available in the dry season.

Questions

1. What is the Great Green Wall?
2. The Great Green Wall is an international response to the problem of desertification. What does this mean?
3. Who is paying for the Great Green Wall?
4. How do the locals benefit from the Great Green Wall?
5. What type of tree is being planted?
6. What is Zai planting?
7. When are the planting pits dug?
8. Why is manure and compost put in the pits?
9. What attracts the termites?
10. The termites dig tunnels between pits. Why would this help the farmers?
11. What does NGO stand for
12. How does drip irrigation work?
13. What the advantages of drip irrigation?
14. What is the main problem with drip irrigation?