

Farmer Managed Natural Regeneration(FMNR) “Experience and lessons from East Africa”



World Vision in a nutshell

World Vision Tanzania (WVT) is a Christian relief, development and advocacy Non Governmental Organization (NGO).

It started its operations in United Republic of Tanzania in 1981, assisting all people regardless of tribe, religion and ethnicity.

WVT facilitates programmes through five zones in 13 out of 30 regions in the country.

World Vision is currently implementing Secure Africa's Future Initiative(SAFe) using Tanzania Empowerment Model(TEAM).

SECURE AFRICA'S FUTURE:

WVT's National Food Security and Climate Change Initiative

Multiple Cluster-level STF Programmes
(Geographic area covering multiple ADPs)

Cluster-level Programme-Applying the STF Analysis and Planning Methodology

Farm System
Productivity &
Profitability
Intervention Menu

**Food Security
Safety – net
Intervention Menu**

Natural Resource
Mgt
Intervention Menu

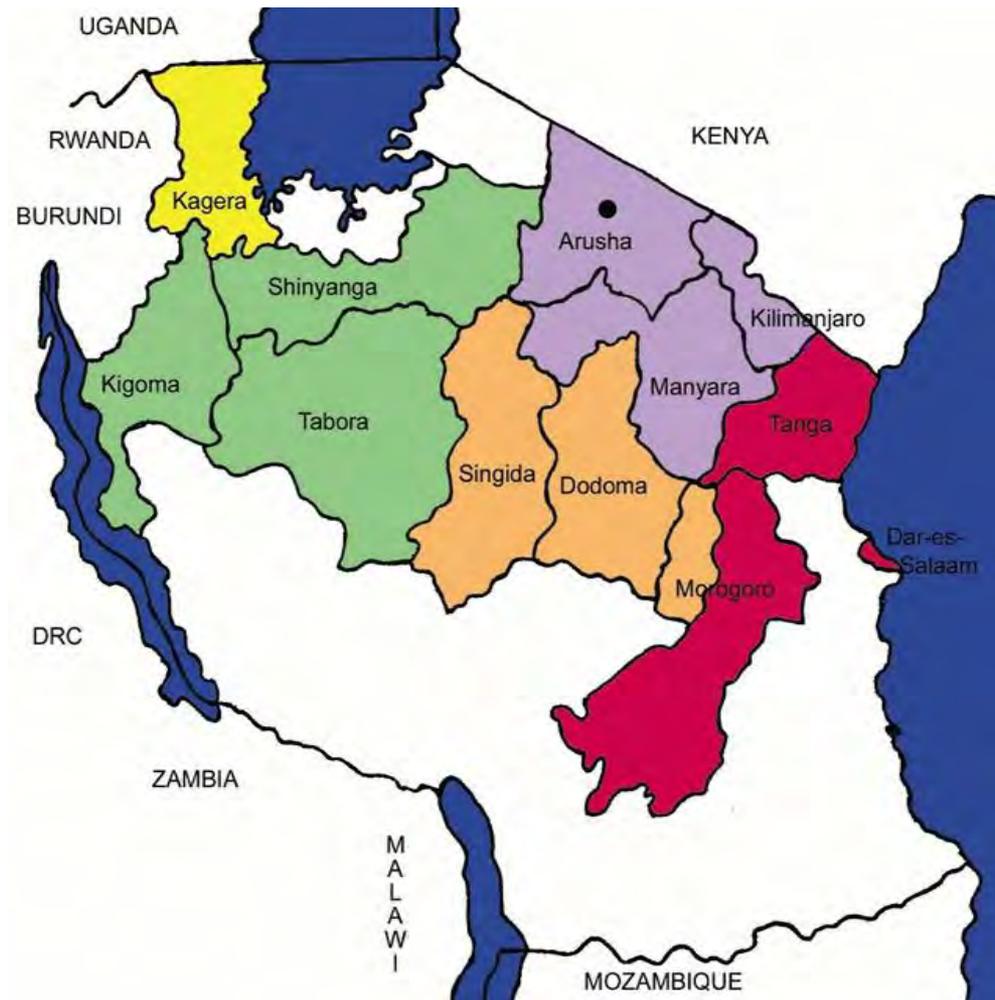
Cluster-level Long-range
Plan & Priority Project
Inventory

Project 1

Project 2

Project "n"

Each project packaged to solicit funding from multiple sources



Is deforestation a serious issue?

- Tanzania mainland occupies about 88 million hectares (ha) of land including water bodies and mountainous landscapes.
- The amount of forests and woodlands on the mainland is about 37 million ha(FAO, 2002; Hurskainen in Malimbwi *et al.*, 2003 and UNDP, 2007). This represents over 40% of the total mainland area.
- According to UNDP(2007) the average rate of deforestation in Tanzania was 412,000 hectares per annum; and that the percentage of natural forest and woodland cover changed from 46% in 2005 to 36% in 2007.
- The same trends of deforestation are occurring across other East African countries.

Reasons for deforestation

Key reasons

- Clearing for agriculture
- Production of charcoal and;
- Over-exploitation of wood resources for timber and poles.

The problem of deforestation is further compounded by

population pressure & poverty .

- Population growth: From > 10 million(1961) to more than 44 million people (2012)
- Experiences show that 99% of Tanzanians living in rural and about 90% of urban dwellers are heavily dependent on wood-energy for cooking and for house warming in colder highland areas.

Is the current situation the same as say 20 years ago?

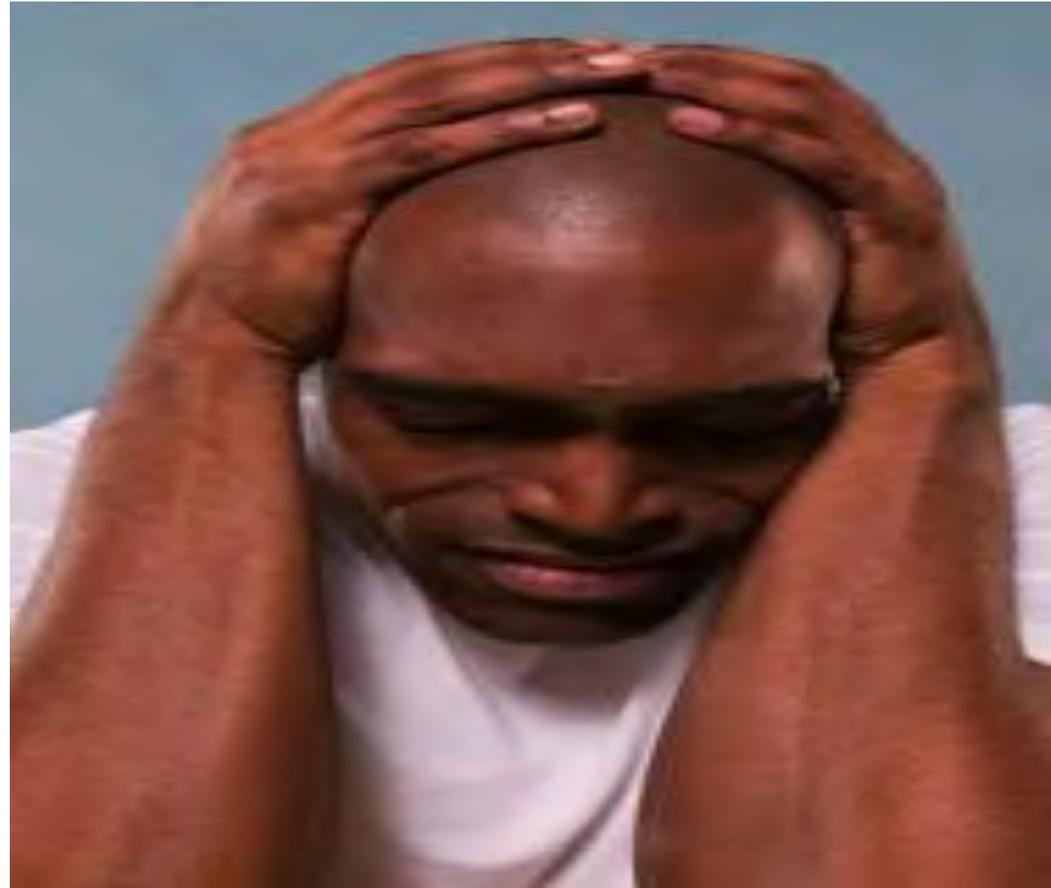
- Studies show that the situation was not like this just few decades ago.
- Deforestation caused by charcoal making, expansion of agricultural areas, fire wood/timber harvesting and bush fires is increasing at the increasing rate
- In short, in terms of tree and vegetation cover-the situation is worse than 20 years ago

Efforts to restore the degraded environment through tree planting

- Different partners, governmental and non governmental have tried to restore the destroyed environment. Restoration efforts have mainly centred on tree planting.



Despite the efforts of government and other partners, the situation has deteriorated





Reasons for mediocre reforestation through tree planting

Drought

Climatic incompatibility

Livestock disturbance

Imperfect timing

Profit making motives

Expensive seeds

Tedious and time consuming

So what?

- Conventional approaches of reforestation will continue to be important. However, FMNR should be emphasized because it provides answers to challenges that are being experienced in tree planting. In other words –the two approaches complement each other
- World Vision and ADRA decided to start implementation of FMNR as a key reforestation strategy especially in arid and semi- arid areas.

FMNR Definition:

Protection and management of shoots growing from existing living tree stumps, roots and tree seeds, especially of useful woody species.



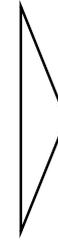
FMNR: Systematic regeneration of trees from living tree stumps, roots and seedling



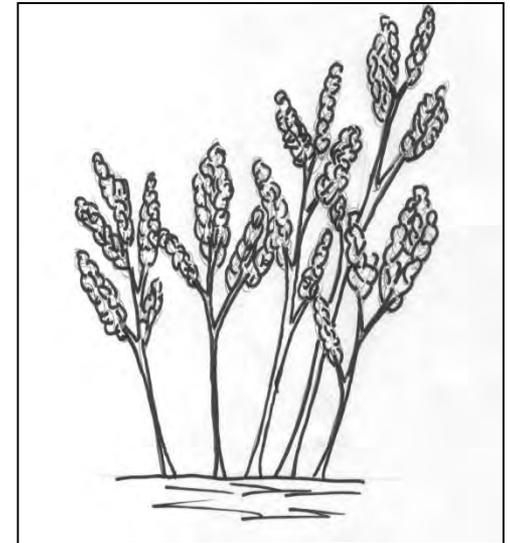
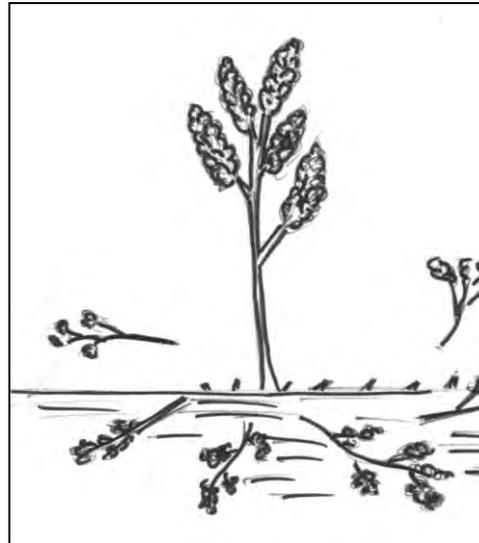
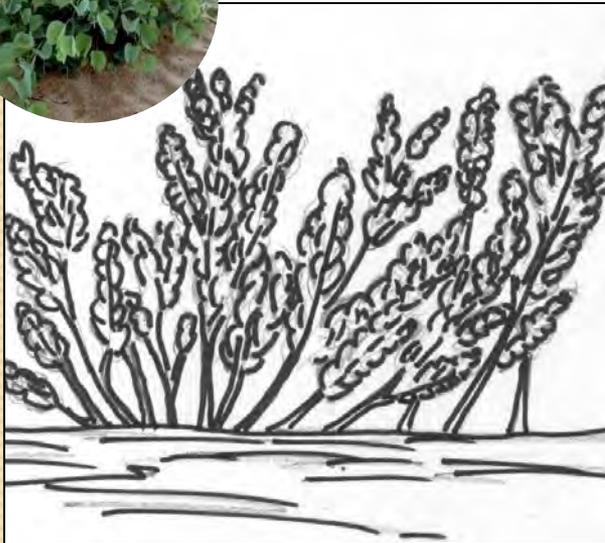
Select desired tree stumps and for each stump, choose number of (tallest and straightest stems to leave



Remove unwanted stems and side branches



Cull emerging new stems and **prune** side branches from time to time



What tools are used to prune trees?

- The best implement to use is a saw because it provides a clean cut. In fact, a wide range of commonly owned tools can be used, including axe, machete, harvesting knife and even hoe. The main requirements are that the tools be sharp and that cuts are always made in an upward motion, not in a downward motion. The objective should be to make a clean cut with minimal damage such as stem bruising or splitting, or stripping of bark. Different tree species may require different pruning techniques, something that can be determined by farmer experimentation and observation



Who can practice FMNR?

- With a little training, women and men, boys and girls, farmers and herders can practice this simple activity. It really depends on the community, the culture and who owns the trees and/or who has the right to utilize them. FMNR is normally practiced in the dry season when labour is more readily available but does not have to be restricted to a particular time



Dos and Don'ts in FMNR

- **Simple rules of pruning are:**
- **1. Always use sharp implements.**
- **2. Always cut upwards carefully to avoid bruising and stripping of bark.**



Don't cut downwards

- When cuts are made downwards, the tree can be easily damaged through splitting or the bark may be stripped from the stem (right). Excessive damage will set back the plants ability to re-grow and the wound may become an entry point of harmful insects.



Where do we practice FMNR?



FMNR in a forest/pastureland

FMNR in a farm



Key approaches that are used to promote FMNR

- Community Volunteers/ ToT
- Establishment of community learning centres
- Empowering Village Agriculture and Environmental Conservation Committees
- Facilitating farmers' exchange visits

Why FMNR?

- Drought tolerance
- Withstands livestock disturbance
- Cost effective
- Not time consuming
- Provides short term benefits as well as long term benefits

Charcoal production



FMNR SOLUTION

- The FMNR project integrates income generation for youth in rural areas to provide them with alternatives for earning their livelihoods

How is FMNR responding?

Need for fuel in rural and urban areas



FMNR solution

- Promotion of energy saving stoves

How is FMNR responding?

Invasion of communal forest reserves

- This is also addressed by integration of improved bee-keeping and other Income Generation Activities

FMNR solution



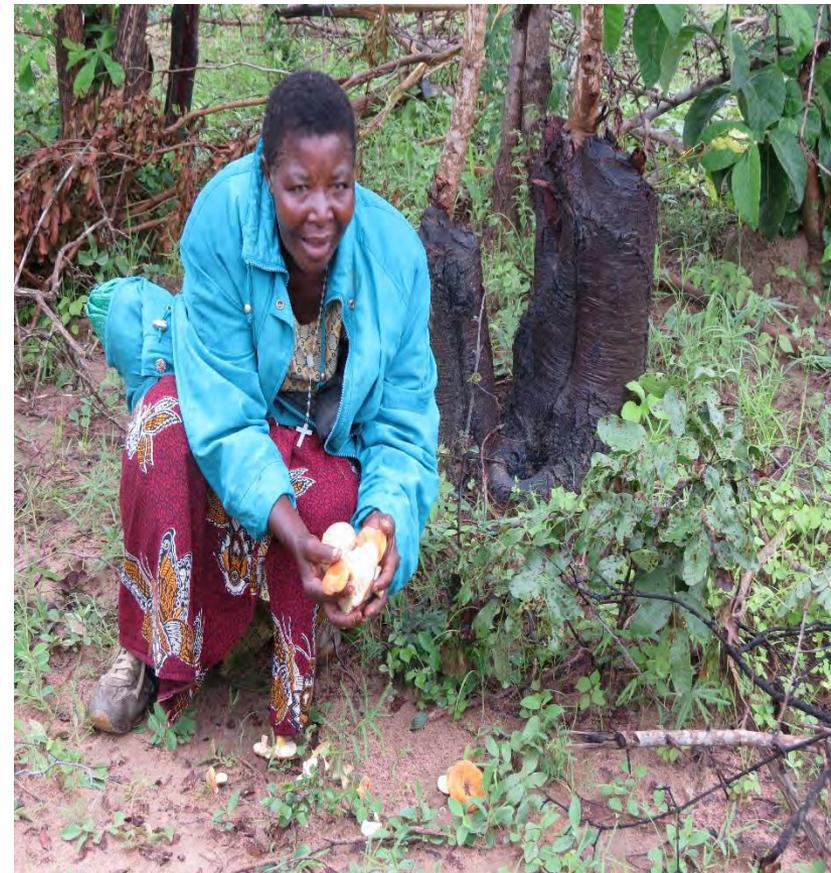
How is FMNR responding?

Benefits of Bee-keeping integration

- The practice provides protection from human invasion
- Honey and its products
- Income

Results

I. Farmers in different areas are enjoying short term benefits



Farmers are earning income through enviro-friendly activities



Regeneration of communal sites



Solidarity in environmental regeneration



Which future do you aspire?



Its all in our hands!



**This is the Future!
Asante!!**

