

# What is FMNR and how does it work?

**Farmer Managed Natural Regeneration** (FMNR) is a low-cost, transformational and sustainable land restoration technique used to combat poverty and hunger, and increase the quality of life for farmers in developing countries. FMNR is currently practiced across more than 25 countries, ranging from Senegal to Timor-Leste.

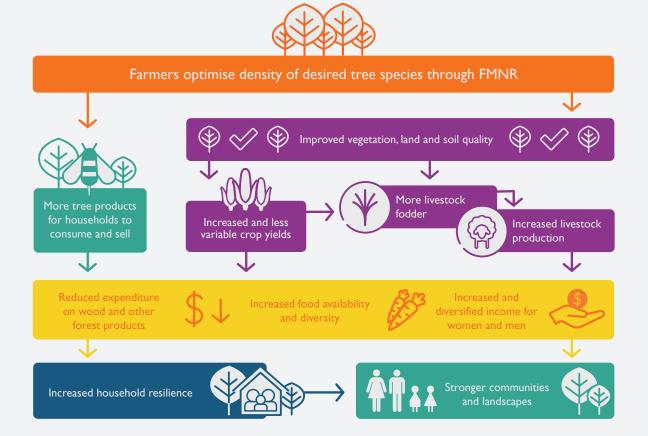
Throughout the developing world, huge tracts of farmland, grazing lands and forests have become degraded to the point they are barely productive. When trees and land are overused, soil loses its fertility and ability to sustain life, leading to erosion, destructive winds, droughts, flooding and a loss of biodiversity and consequently, suffering for the world's poorest people.

The FMNR approach involves systematic regeneration, management and regrowth of trees and shrubs from felled tree stumps, roots and seedlings. Communities discover how the simple act of pruning can release the untapped energy of deep, underground root systems, rapidly turning shrubs and stumps into mature trees and forests in a matter of years, completely transforming the world around them.

FMNR costs are significantly cheaper than treeplanting schemes and have a 100 percent survival rate compared to variable rates for planted trees, making the technique a valuable investment. Farmers can use implements already in their possession, such as harvesting knives and machetes. The method is a catalyst for sustainable development, impacting the next generations to come.

The tangible outcomes benefit not just the environment, but the communities who rely on it for survival. Farmers can increase their food and timber production and resilience to climate extremes, put more food on the table, earn and save more income, build better homes and focus on providing a brighter future for their children – helping to break the cycle of poverty.

## When the environment thrives, the community can thrive



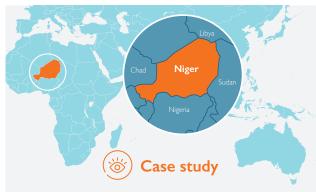
# 5 million hectares

reforested in a 20-year period in Niger alone 25 countries

practicing FMNR from Rwanda to Indonesia

up to 2x

in farmers' crop yields



In the 1980s, Niger was devastated by drought. The almost total destruction of trees and shrubs intensified the impact of strong winds, drought, high temperatures and infertile soils, contributing to chronic hunger and periodic, acute famine. The country was in a state of severe environmental degradation. Women had to walk for miles to collect small branches and even cattle and goat manure was used for fuel.

Without protection from trees, crops were hit by 60-70km/hour winds and windstorms damaged crops. Farmers often had to replant crops up to eight times in a single season. When FMNR was adopted, for the first time, whole communities were growing trees on their farms.

FMNR became a standard practice and over a 20-year period, the approach spread from farmer to farmer until five million hectares of farmland was regenerated due to the hard work of communities, giving hope that environmental restoration could provide farmers with a brighter future.

#### **US\$900** million

per year estimated gross income from FMNR technology in Niger alone



Yaouza Harouna showing his millet stock at his house in the village of Tambara-Sofoua Yahaya.

### Yaouza's story

After implementing FMNR on his five hectare land, Yaouza Harouna, father of six, can now fully provide for his family, has increased the productive capacity of his land and has become a sustainable farmer. He has regrown 310 new trees, including 60 Sahel apple trees, 450 kilograms of peanuts, 250 kilograms of cowpeas, 375 kilograms of sorghum, 2,000 watermelons and 833 kilograms of Sahel apples from his new trees.

With his increased income, Yaouza has provided his household with sustainable food and firewood, put his children in private school, supported relatives, employed staff and branched out into more incomegenerating activities.

"I have no shortage of fuel wood, my annual crop yield has increased ... even in drought years, trees tend to keep producing when annual crops fail. Since adopting FMNR ... I have peace of mind. I have no appropriate words that can express my recognition and thankfulness to World Vision. May God bless World Vision."

"This is probably one of the largest positive environmental transformations in the Sahel and perhaps in all of Africa"

Chris Reii World Resources Institute

