

Restoration Cases Flagship Collection

Case #4: The hidden forest: farmers tend regenerating trees in African Drylands



Farmer managed natural regeneration in Nigerian drylands.

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In brief

Overview

Vast areas of the Maradi and Zinder regions of Niger were transformed from severely degraded farmland to agroforests through farmer-managed natural regeneration (FMNR). In the 1970s and 1980s, Maradi and Zinder faced an ecological crisis. Multiple droughts, rapid soil degradation, and famine left fuelwood, building materials, and fodder scarce, and agriculture nearly untenable. Because FMNR improved agricultural yields and was relatively easy to implement, it spread through external interventions and farmer-to-farmer exchange. More than 90% of Maradi's population now encourages selective trees to grow on farms. FMNR transformed 5 million ha from wasteland to agroforest as individual farmers invested in trees.

Exemplary practices

In the mid 1980s, FMNR was introduced in Maradi via a “Food for Work” program—farmers agreed to encourage natural regenerating trees on their land in exchange for food aid. FMNR also arose organically when migrant farmers returned home from work elsewhere too late to clear their fields from emerging woody species and found that crop yields were higher in treed fields than fields cleared of trees. A weakening national forest service department increased the control that farmers had over trees on their land, which was later formalized through policy reforms. Peer-to-peer learning was critical—many farmers switched from burning and clearing to protecting on-farm trees once they saw the agricultural benefits, which included increased agricultural yields, tree-based foods (especially important in times of famine), and fuelwood (which dramatically reduced the burden on women). The case showed that restoration does not always require large investments or financial support from governments or NGOs. FMNR was successful in large part because it met the needs of farmers and improved agricultural production with minimal investment. Listening to the farmers and understanding local needs was crucial. Now FMNR is practiced in many other countries, in Africa and beyond.

Key lessons learned

- ◇ *Flexibility and adaptability are key: had practitioners dictated to farmers exactly how to do FMNR, it is unlikely to have developed such widespread appeal.*
- ◇ *Desperate times can lead to restoration: In the face of a lack of viable alternatives, farmers were willing to change their practices and incorporate on-farm trees.*
- ◇ *Seeing is believing: Having a farmer see firsthand and exchange experiences directly with fellow farmers living and working under similar conditions is the easiest way forward and helps explain how FMNR spread so widely and quickly.*
- ◇ *Restoration based on FMNR takes the support of a village. In places where social cohesion was lower, FMNR was not adopted as widely.*
- ◇ *Engaging farmers is critical for widespread restoration using FMNR.*