Ecoagriculture Snapshots • 02

The Ecoagriculture Snapshots series highlights the work of different organizations around the world to implement ecoagriculture landscape management approaches.

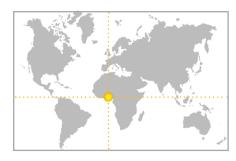
Livestock Passage Corridors to Ensure Herd Mobility in Benin

I n the Banikoara district of the west African country of Benin, cotton is king. Just as hunting is etched into the collective identity of the local Bariba people, the community has been defined by growing "white gold" in recent years. Other crops such as corn and peanuts are also grown, but cotton earns such a high market price that almost every family – farming families as well as herdsmen – plants cotton now.

Permanent cotton farming has supplanted the traditional agricultural system, which relied on longterm fallowing, which left fields to recover their soil fertility over 10- to 15-year periods. Certain tree species, such as shea and locust bean, were used by the community in a variety of activities, so farmers tended



In the Banikoara region of Benin, cotton is "white gold." Introduced during the colonial period, cotton has emerged as the dominant source of income for millions of West Africans during the last 25 years. Source: Leif Brottem





Cattle herding is essential to the livelihoods of many people in Banikoara. Pastoralists rely on cattle trading and meat and cheese sales for income. Livestock production was traditionally synergistic with agricultural production - crop fodder could be used to feed the animals, and their manure was used to fertilizer the crops – but the new reality of cotton farming means there is less land for cattle. Source: Leif Brottem

to plow around them when finally clearing the land for production. Since the logic now is the more cotton planted, the more money earned, deforestation and land degradation are increasingly serious problems. Until recently, locals were able to freely plant cotton within Regional Park "W," a UN World Heritage Site and one of the last contiguous wildlands in west Africa.

Pastoralism has also long been a complimentary production system to agriculture in the region and remains critical both for cultural and economic reasons to the community today. During the rainy season, cattle graze in pasturelands and secondary forests. During the dry season they subsist on crop residues and tree foliage, though many are forced to migrate south.

improving agriculture · conserving biodiversity · enhancing livelihoods

While cotton is the most important cash crop, cattle, milk, and cheese sales are important sources of income for traditional pastoralists such as the Fulani. Land clearing for cotton production has now extended to areas traditionally used for livestock grazing, forcing pastoralists to travel farther to find suitable grazing ground. That farmers cannot afford sufficient fertilizer for their cotton fields forces them to clear more and more land, further squeezing livestock production. Ensuring the long-term viability of both cotton farming and cattle herding is a major challenge for local people.

Towards that end, local officials have been working in recent years with international non-governmental organizations (NGOs), notably the Netherlands Development Organization, to create livestock corridors through selected agricultural fields.. Via the corridors, herdsman can continue to reach established grazing areas without trampling crops. The corridors are managed by locally elected officials and stakeholders.. Although official tenure has not been changed, corridors are effectively considered common property, with perpetrators fined or held responsible for any damage done to crops.



Here, a farm family tills a cotton plot on the border of Park 'W', a United Nations World Heritage site and one of the last contiguous wildlands in west Africa. Livestock corridors allow cattle to cross through designated portions of crop land in the park buffer zone. The aim is to ensure the continuity of this important livelihood activity. Source: Leif Brottem



The lure of cotton: the cash crop garners such a high price at market – and cropland expansion is increasingly threatening cattle herding – that the Fulani people, traditionally a pastoralist people, is increasingly turning towards agricultural production. What will the new cotton culture mean for the diverse cultures of this region? Source: Leif Brottem

Corridors increase livestock productivity by providing access to nutritious pasture and watering points, and indirectly benefit agriculture by ensuring a healthy supply of cattle for animal traction, manure, and a secondary income source for farmers. The corridors contribute to enhanced biodiversity as well, since they tend to have higher floral species richness than permanently cultivated land. Additionally, they can act as passageways and permanent habitats for species such as seed dispersers and pollinators who perform important ecosystem services. Corridors may also improve timber and non-timber forest product production and positively influence microclimatic conditions.

Though their primary function is to ensure the mobility of livestock herds between water points, camps, and pasturelands, corridors also have important positive effects on both income generation and biodiversity conservation. In this case, the establishment of the corridors was also driven by the affected communities themselves, all hallmarks of successful implementation of ecoagriculture approaches.

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