

AFR100 PULSE

HARNESSING AFRICA'S FLR SPIRIT

FOREST LANDSCAPE RESTORATION AND COCOA AGROFORESTRY SYSTEMS IN AFRICA

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We support the



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1. INTRODUCTION

The African Forest Landscape Restoration Initiative (AFR100) was established in December 2015 at COP21 in Paris to address the environmental, economic and social challenges that affect the management of natural resources in Africa. Its main objective is to restore more than 100 million hectares of deforested and degraded landscapes by 2030. It is implemented at the national level. Currently 32 African governments have committed to restore 128 million hectares of degraded forests and lands by 2030.

Forest Landscape restoration (FLR) is not limited to planting trees alone, it is about restoring the whole landscape (IUCN, 2018) and it includes several sectors such as agriculture, livestock, forests and the environment, town planning and housing, water and sanitation, energy, tourism, and land use planning. Various restoration techniques exist but a very popular one, widely used in Africa is agroforestry (Quail and Diakhité, 2021).

Agroforestry has been an important technique of restoration practiced in Africa for many years. The cocoa agroforestry systems that exist in Africa, Asia and Latin America have been used since the 1880s. The objective of this information note is to discuss the new cocoa agroforestry systems as a deforestation free and sustainable land use system that contribute to the restoration of deforested and degraded forests and lands while improving the well-being of smallholder farmers.





2. HISTORY OF COCOA ESTABLISHMENT IN CENTRAL AND WEST AFRICA

Cocoa production was introduced in Africa by the Portuguese. They planted cocoa in Sao Tome and Principe and in Gabon in 1822 (<https://www.google.com/search?q=history+of+cocoa+production+in+Africa>). In Cameroon, cocoa production was introduced in 1886 by the German colonial administration (Laird et al., 2007 cited by Amanda Jane Klarer, 2014). After the German colonization, workers from the plantations, especially the migrants, settled in the different producing regions and set up their own cocoa plantations capitalizing on their own knowledge of the cocoa production process (Ruth, 1999 cited by Amanda Jane Klarer, 2014). The former cocoa plantations established by Germans are now owned by the Cameroon Development Corporation (CDC) which is a parastatal organization with the government having a share in the capital.

Traditionally, smallholder cocoa plantations were created by removing the forest under-story and thinning the forest canopy to enable cocoa seedlings grow into productive trees (Duguma et al., 2001). This has made the smallholder cocoa plantations to be good examples of multi-strata agroforestry systems (Oke and Odebiyi, 2007). Plantain and other food crops were intercropped for home consumption and sales while allowing the cocoa plants to get matured. As stated by Michon and Deforesta (1995), agroforestry is viewed as a land use management system that offers solutions to land and forest degradation and the loss of biodiversity. This implies that the traditional smallholder cocoa plantation has always been considered as a way to contribute to biodiversity conservation within the agricultural landscape. Sonwa et al., 2007 define the traditional smallholder cocoa plantation as a system in which few large forest trees in secondary or primary forests are cleared and part of the under-story thinned in order to introduce young cocoa plants. This corroborates the fact that the traditional smallholder cocoa plantations were not established in completely deforested area because of the need of the shade that other trees will provide to the young cocoa plants.

3. THE COCOA CRISIS OF MID-1980s AND SMALLHOLDER COCOA FARMERS' BEHAVIORAL CHANGE

In 1986 the economic crisis that hit the World also impacted badly cocoa producing countries with low producer prices due to the collapse of the international cocoa market. As a result, this has encouraged smallholder cocoa farmers from West and Central Africa to diversify their income sources within the cocoa plantations by introducing timber species, medicinal products, fruit trees and non-timber forest products (Sonwa et al., 2007). In fact, the cocoa crisis has taught smallholder farmers to minimize risk associated with agriculture which made them adopt the diversification approach. This enabled them to depend on other income sources besides cocoa production. Furthermore, the strategy allowed them to get revenues throughout the year.

4. THE NEW COCOA SYSTEM POST CRISIS AND ITS CONTRIBUTION TO FORESTS AND LANDSCAPE RESTORATION

During the post cocoa crisis (after 1986), smallholder farmers adopted a strategy of enriching the old cocoa plantations by eliminating and replacing the old cocoa trees with high yielding varieties of cocoa. As mentioned above, smallholder farmers also introduced timber species, non-timber forest products, medicinal and fruit trees. This diversified strategy enabled smallholder farmers to meet their basic needs of food security and nutrition, health, energy, housing, employment and income. From the environmental side, the new cocoa agroforests contributed to biodiversity conservation, and they become progressively multi-strata agroforestry systems which are close to secondary forests capable of storing carbon and improving soil fertility because of the existing diversity of tree species. In addition, this new cocoa system post crisis provided employment to several youth and women entrepreneurs most of whom returning from migration to the cities due to the difficulty to get minimum wage because of the crisis.

In West and Central Africa, since the implementation of the AFR100 initiative, new cocoa plantations have been established in deforested and degraded forests and lands using high yielding cocoa varieties and fast growing timber, medicinal, fruit trees and non-timber forest product species. The tree domestication program of the World Agroforestry Centre (ICRAF) contributed tremendously to this effort. Côte d'Ivoire is the world leader of cocoa production. In 2019, the country supplied 30 percent of the cocoa beans for the world chocolate market. As part of the forest landscape restoration effort, smallholder farmers in Côte d'Ivoire have engaged in restoration activities by establishing new cocoa plantations in deforested and degraded forests and lands and by enriching old cocoa plantations with high yielding varieties of cacao intercropped with timber species, non-timber forest products, plantain and maize. This new cocoa system therefore provides environmental, social, economic and livelihood values.





5. CONCLUSIONS

Africa is the World lead producer of cocoa accounting for 70 percent of total production. In particular, Côte d'Ivoire is the world lead producer of cocoa, followed respectively by Ghana, Indonesia, Nigeria and Cameroon (<https://worldpopulationreview.com/country-rankings/cocoa-producing-countries>). Côte d'Ivoire, Ghana, Nigeria and Cameroon are members of the AFR100 initiative. Other countries members of the AFR100 initiative in the top 20 world cocoa producers are Uganda (12th world producer of cocoa); Togo (15th world producer of cocoa); Sierra Leone (17th world producer of cocoa) and Madagascar (20th world producer of cocoa).

Cocoa plantations using a sustainable agroforestry system that produces environmental, social and economic and livelihood benefits simultaneously contribute to biodiversity conservation, carbon sequestration to combat climate change, improve soil fertility and ecosystems and ecological functions due to their role as multi-strata agroforestry systems. For these reasons, the new cocoa plantations being established both in old cocoa stands and in already deforested and degraded forests and lands play an important role in the AFR100 initiative.

6. REFERENCE

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