



Briefing paper

Upscaling cocoa agroforestry in the Juabeso-Bia and Sefwi-Wiawso Landscapes, Ghana

Lessons from the Working Landscapes programme

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Takeaways

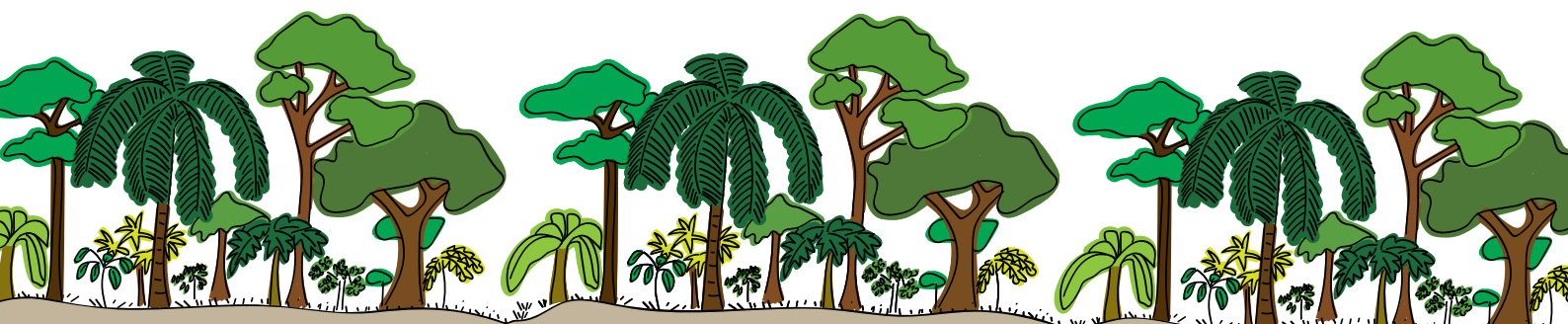
- > In Ghana, cocoa is traditionally grown in agroforestry systems, but over time farmers increasingly switched to monocultures, with negative effects on long-term production levels and farmers' resilience. Tropenbos Ghana supports cocoa farmers to bring back trees into their farms.
- > They have been sharing best practices for cocoa agroforestry with government agencies and companies, inspiring a major cocoa company to support agroforestry through their extension services, and the government to supply tree seedlings to cocoa farmers.
- > They have been facilitating village-level savings groups, which enable cocoa farmers, especially women, to invest in the management of their cocoa agroforests and diversify their livelihood sources.
- > They have been raising the government's attention to current tree tenure policies that serve as disincentives for farmers to grow and maintain trees on their farms. They also helped district governments with integrating agroforestry objectives in medium-term development plans.
- > Tropenbos Ghana learned that supporting a particular model of agroforestry requires simultaneous collaboration with farmers (so the model fits the local context and needs), trading companies (so it meets market requirements) and government agencies (to align with regulations).
- > To upscale sustainable cocoa agroforestry, it is necessary to further engage with government extension agencies, to fundamentally change their approach towards cocoa farming and embrace diversity and multifunctionality.

Introduction

In Ghana, the Working Landscapes programme (Box 1) focusses on the Juabeso-Bia and Sefwi-Wiawso (JBSW) landscapes in the Western North Region. Together, the two landscapes are home to approximately 470,000 people and stretch over 481,000 hectares, with a forest cover of close to 60%. The majority of smallholders in the area cultivate cocoa. This used to be done in mixed agroforestry systems, but over the years, non-shaded monoculture plantations have become dominant. The production cycle of the traditional mixed system was about 40

years, while it is only about 20 years for non-shaded cocoa. After that, the soils are exhausted, and farmers move on to look for new lands. Expansion of cocoa farms is contributing to the loss of forest cover, both within and outside of forest reserves. Moreover, non-shaded cocoa is vulnerable to changes in the climate. Under the current system, decreased rainfall is expected to reduce cocoa yields by 28% in 2050.¹ As farmers depend almost entirely on cocoa for their livelihoods, such a decrease in yields would have enormous impacts.

¹ Asante, F.A. and Amuakwa-Mensah, F. 2015. Climate Change and Variability in Ghana: Stocktaking. *Climate* 2015 3(1): 78-99. <https://doi.org/10.3390/cli3010078>



Box 1. The Working Landscapes programme

The Working Landscapes programme (2019 – 2023) is financed by the Ministry of Foreign Affairs of the Netherlands and implemented by the Tropenbos International (TBI) network — a network of autonomous organizations in Colombia, DR Congo, Ghana, Indonesia, Suriname, Viet Nam and the Netherlands, with partners in Bolivia, Ethiopia, the Philippines and Uganda. TBI members and partners offer practical, locally owned and evidence-based solutions to achieve climate-smart landscapes, where local people manage forests and trees sustainably, contributing to climate change mitigation, adaptation, improved livelihoods and biodiversity conservation. The programme is built around three strategic priorities, i.e., sustainable land-use, inclusive landscape governance, and responsible business and finance. These are considered the pillars of climate-smart landscapes. As part of the programme, several TBI members have been supporting agroforestry as a sustainable and more resilient alternative to conventional modes of agrocommodity production.

According to Tropenbos Ghana, the widespread adoption of agroforestry practices, mixing shade-tolerant cocoa varieties with fruit and timber trees, will simultaneously decrease the system's vulnerability to changing weather conditions and increase carbon sequestration. It will also have positive effects on biodiversity, as diverse agroforestry systems function as extensions of the natural habitat of forest species, and because agroforestry practices prolong the lifespan of cocoa trees and maintain soil fertility, helping to decrease the rate of forest encroachment. As part of the Working Landscapes programme, Tropenbos Ghana has therefore been supporting the diversification of cocoa production systems in the JBSW landscapes, focussing on some of the key conditions for agroforestry uptake.

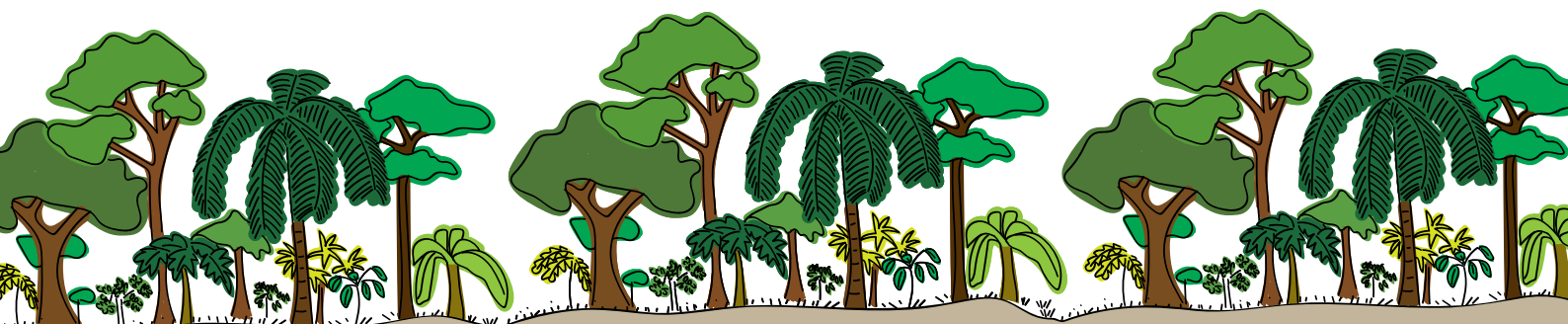
Knowledge of sustainable land-use practices

At the start of the Working Landscapes programme, Tropenbos Ghana conducted a baseline study in the landscapes and found that most cocoa farming systems had minimal tree cover — typically not more than 10%. This is partly explained by the fact that, in the past, extension officers had advised farmers to reduce the number of trees in their cocoa farms, due to the incidence of the black pod disease. Ever since, efforts to re-establish trees in these farms have been largely unsuccessful. Tropenbos Ghana also found that local agricultural extension officers — both those of the government and those associated with cocoa buying companies — had a limited understanding of the benefits of cultivating shaded cocoa in mixed systems. For

as far as extension officers would pay attention to the integration of trees in cocoa farms, their focus would be on a small number of timber tree species, and their formal recommendation was to plant not more than eight trees per acre. According to Tropenbos Ghana, this was one of the main barriers to upscaling diverse and resilient agroforestry practices in the landscape.

To fully understand the possibilities and needs in the communities, Tropenbos Ghana organized discussions with farmers to talk about the potential benefits of bringing diversity back into their land-use systems. Rather than presenting a predefined agroforestry model, Tropenbos Ghana started with listening to the farmers' own ideas about the benefits of integrating different kinds of trees and plants, including timber and fruit trees, as well as medicinal plants that can be grown in between the cocoa.

Tropenbos Ghana then organized learning workshops, where they presented their findings from the field, and invited relevant government agencies and cocoa companies to share their experiences. After these workshops, a major international cocoa sourcing company (Olam Food Ingredients) decided to send its extension officers to attend field level trainings conducted by Tropenbos Ghana, and the company has now adopted Tropenbos Ghana's cocoa agroforestry approach in its own extension services. Moreover, the Cocoa Health and Extension Division (CHED) of the Ghana Cocoa Board (a governmental organization that supports the production, processing and marketing of cocoa) started supporting the supply of tree seedlings to farmers. Between 2020 and 2022 it is estimated that smallholders in the JBSW landscapes



increased tree cover by at least 25% on about 2,000 hectares of farmlands, due to tree planting in cocoa fields as well as farmer managed natural regeneration.

Tree tenure and planning

In Ghana, tree tenure policies act as a barrier to upscaling agroforestry practices. This is because all naturally occurring timber trees are considered ownership of the state, regardless of where they grow. When a farmer is unable to prove that a tree was planted, the state is legally entitled to issue timber utilization contracts (TUCs) to licensed logging companies, which can then harvest the tree. Although the TUC holder must seek the farmer's consent before logging, this is often flouted. A farmer who grows a timber tree is thus never sure if he or she can harvest it.²

In recent years, Tropenbos Ghana has been working closely with other civic organizations to persuade the Ghanaian government to make changes to its policies related to tree tenure and timber harvesting. Together they made concrete suggestions to the Ministry of Lands and Natural Resources and the Parliament of Ghana for an amendment of the Concession Act of 1962, which vests timber resources and naturally occurring timber trees in the President of the Republic of Ghana. Although the proposed amendment was not adopted, it has put the issue high on the government's agenda. The Ministry is now aware that a policy change is needed to promote tree planting on farms, not only to maintain long-term cocoa production, but also to contribute to climate mitigation and adaptation objectives, as set out in Ghana's climate plans and its Nationally Determined Contribution (NDC).

In addition to the national regulations on tree tenure, Tropenbos Ghana identified the lack of integrated landscape planning as a barrier to upscaling agroforestry. They therefore started working with local government planners to improve the process towards medium-term development plans, with more attention to agroforestry. In this, Tropenbos Ghana ensured the active participation of traditional authorities, as they have direct control over land-use decisions at

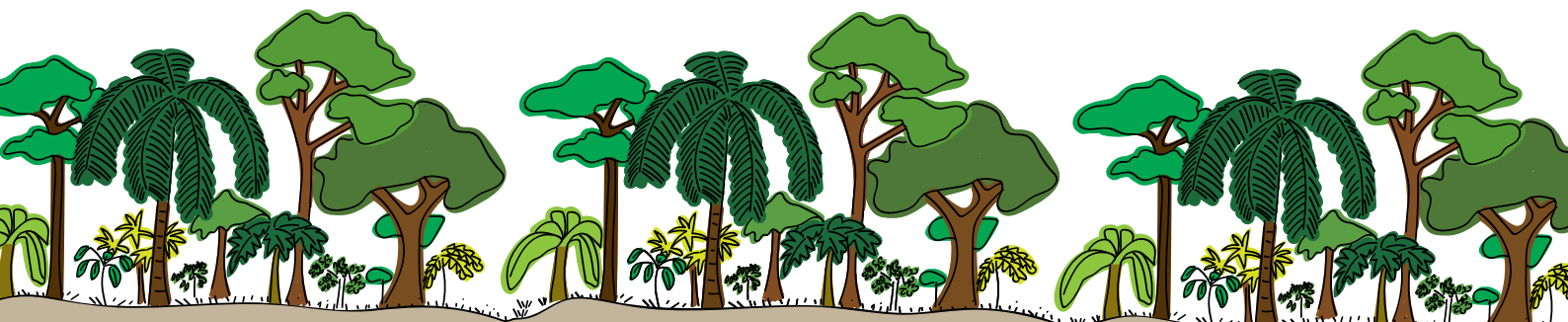
the local level. Three districts (Bia West, Juaboso and Sefwi-Wiawso) have now included agroforestry in their medium-term development plans, and local government agencies and assembly members actively promote tree planting in cocoa fields.

Economic feasibility

The economic benefits of cultivating cocoa in diverse agroforests include the maintenance of long-term productivity, reduced costs for chemical fertilizers and pesticides, and diversified risks. Moreover, standing trees can provide recurring economic returns, for example through the sale of fruits and essential oils, which have markets with growth potential, especially in nearby cities. However, as some components of the agroforest may take many years to mature, farmers need to be able to adopt a long-term perspective. They also need to make initial investments, e.g., to purchase tree seedlings and other planting materials. Such investments may require more cash than they have on hand. In the view of Tropenbos Ghana it was therefore important to improve smallholders' access to credit to make upfront investments, and to bridge investment periods.

To improve access to credit, Tropenbos Ghana started working with local communities to establish Village Savings and Loan Associations (VSLAs). A VSLA usually consists of between 15 and 25 people who agree to save together. They jointly decide on periodic cash contributions that everyone will make, and on loan conditions and interest rates. When a VSLA is up and running, group members can take out loans with low interest rates. It is an easy and safe way for farmers to have access to cash to make small investments. As part of the Working Landscapes programme, Tropenbos Ghana helped establish 12 VSLAs in 10 communities. Some farmers used VSLA funds to hire labourers to help prune and clear weeds in their cocoa farms, and to buy seeds and seedlings. Hearing of these successes, many other communities wanted to follow suit and Tropenbos Ghana therefore started training community agents to help set up VSLAs throughout the landscape in the coming years.

² In some districts it is possible to register trees that are planted in a farmer's field, but this is a tedious process, and the procedures are not standardized. Currently, the Forestry Commission is building the capacity of the Forest Service Division (FSD) staff related to a simplified process for registering trees on farms.



So far, most VSLA members have been women. Women in the area are traditionally in charge of the cultivation of food crops in home gardens, and the harvesting, processing and trade of Non-Timber Forest Products (NTFPs), such as fruits, spices and nuts. In line with these roles, women have typically been using the VSLA loans to diversify cocoa plantations with vegetables for subsistence purposes and a wide range of NTFPs for trade.

Future priorities for scaling

- While some private sector extension services have started supporting cocoa agroforestry, local-level government extension agencies are still mostly focusing on unshaded or low shaded cocoa. There is a need to work with these agencies, to help them change their dominant approach and start paying attention to the benefits of trees in cocoa farms.
- There is a need to monitor developments in the landscape to analyse the conditions for, and impacts of, the adoption of cocoa agroforestry. Organizations operating on the interface of research, policy and practice, must use this

information to inform the decisions of relevant actors, such as the Forestry Commission, traditional councils, Metropolitan, Municipal and District Assemblies, the Ghana Cocoa Forest REDD+ Programme, and cocoa companies.

- Recently, two planning agencies (the Town and Country Planning Department and the Physical Planning Department) have merged into one Land Use and Spatial Planning Authority (LUSPA), under the Ministry of Environment, Science, Technology and Innovation (MESTI). This has created an opportunity for better and more integrated planning at the landscape level. However, the new agency will need support in the development of participatory planning processes with due attention to the role of agroforestry in agricultural landscapes, as contained in Ghana's latest NDC.
- Civic and research organizations must continue the dialogue with the Ministry of Lands and Natural Resources and the Parliament of Ghana, to ensure that policy changes will effectively remove disincentives for tree planting and farmer managed natural regeneration of trees within farmer's fields.

Published by: Tropenbos Ghana, Kumasi, Ghana & Tropenbos International, Ede, the Netherlands, 2023. The text may be reproduced for non-commercial purposes, citing the source.

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Suggested citation: Tropenbos Ghana. 2023. Upscaling cocoa agroforestry in the Juabeso-Bia and Sefwi-Wiawso Landscapes, Ghana - Lessons from the Working Landscapes programme. Briefing paper. Ede, the Netherlands: Tropenbos International. Kumasi, Ghana: Tropenbos Ghana.

Issue date: March 2023

Cover photo:

Illustration: Generic representation of a multistory agroforest, it does not represent the system described in this brief - Juanita Franco

This briefing paper has been produced within the framework of the Working Landscape programme funded by the Ministry of Foreign Affairs of the Netherlands.

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