



Cargill: Promoting cocoa agroforestry in Côte d'Ivoire and Ghana

Cargill and PUR

In 2019, Cargill launched a smallholder cocoa agroforestry programme together with PUR, an organization that promotes agroforestry and regenerative agriculture. The Cargill-PUR programme in Côte d'Ivoire and Ghana aims to develop and test an agroforestry strategy that can be implemented effectively in Cargill's cocoa supply chain. This work forms part of a wider network of 30 sites where Cargill is promoting agroforestry (Figure 1). Cargill also works on agroforestry in three other countries that it sources cocoa from: Brazil, Cameroon and Indonesia.

From 2019 to 2022, the Cargill-PUR programme involved more than 7,000 farmers and distributed 856,000 trees across 15 cooperatives in Côte d'Ivoire and 16 communities Ghana.

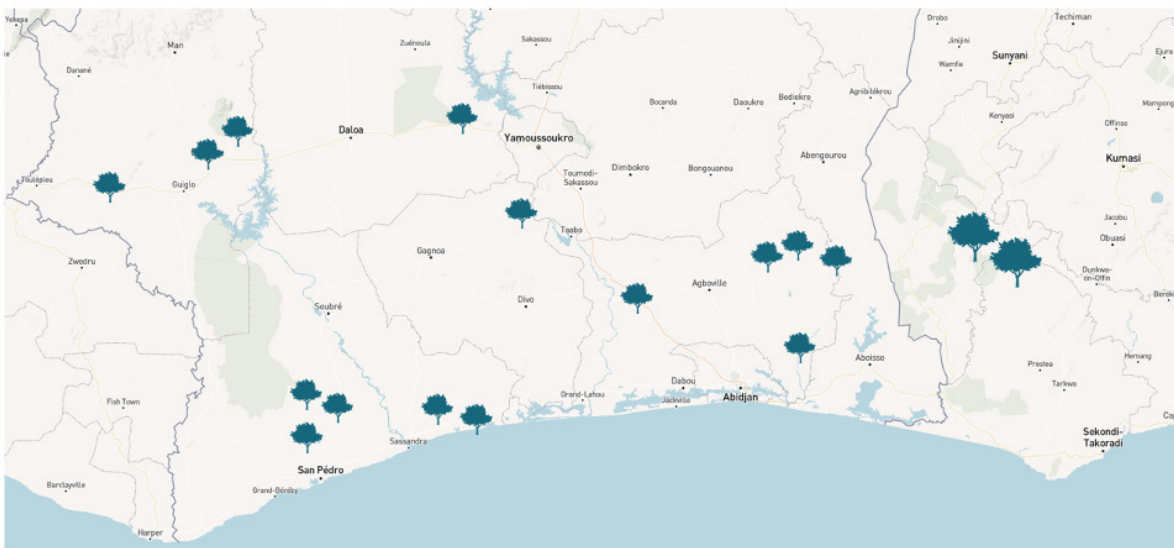


Figure 1. Cargill cocoa agroforestry sites

This company case report is an annex to the report “Promoting cocoa agroforestry in West Africa: Experiences from the private sector and opportunities for collaborative action” by Tropenbos International, Tropenbos Ghana and Nitidae.

The opinions and views expressed in this publication are based on the company's input and do not necessarily reflect the views of Tropenbos International, Tropenbos Ghana or Nitidae.





Why is agroforestry important?

Agroforestry is part of Cargill’s Cocoa Promise programme, and its Protecting Our Planet action plan. Cargill considers agroforestry an effective approach to restoring ecosystems, enhancing carbon sequestration, protecting soils, restoring local biodiversity, and increasing the resilience of cocoa plantations and producers through diversification and increasing farm incomes. Agroforestry is being adopted at the farm level, and it is increasingly acknowledged that additional effects can be achieved throughout the broader landscape through awareness raising and by spreading improved farming practices through farmer-to-farmer learning.

Cargill’s strategy for promoting agroforestry

A stepwise approach to implementation

PUR carries out feasibility assessments and field visits to proposed sites. Once the programme decides to work at a specific site, PUR works with cooperatives to build awareness and technical capacity. With funding from the programme, the cooperatives employ local technicians to provide ongoing technical assistance to farmers over the duration of the project (minimum 3 years).

Next, farms are registered, and together with farmers the project team determines planting models and species selection. Establishing nurseries is the next priority; the programme supports nurseries that are managed by women’s groups or cooperatives, and in some cases, private nurseries provide seedlings to cooperatives. At the same time, farmers are trained on how to plant seedlings and how to tend and prune trees.

The programme proposes 3 different planting models to farmers (Figure 2): (i) boundary planting of 100 fast-growing timber or legume trees per hectare; (ii) intercropping with 100 trees per hectare (including some boundary trees); and (iii) full reforestation of small blocks of land. So far, most farmers have opted for intercropping (model ii), although some choose not to integrate timber and fruit trees within their cocoa plantations, but rather, to plant them in small plots on their farm.

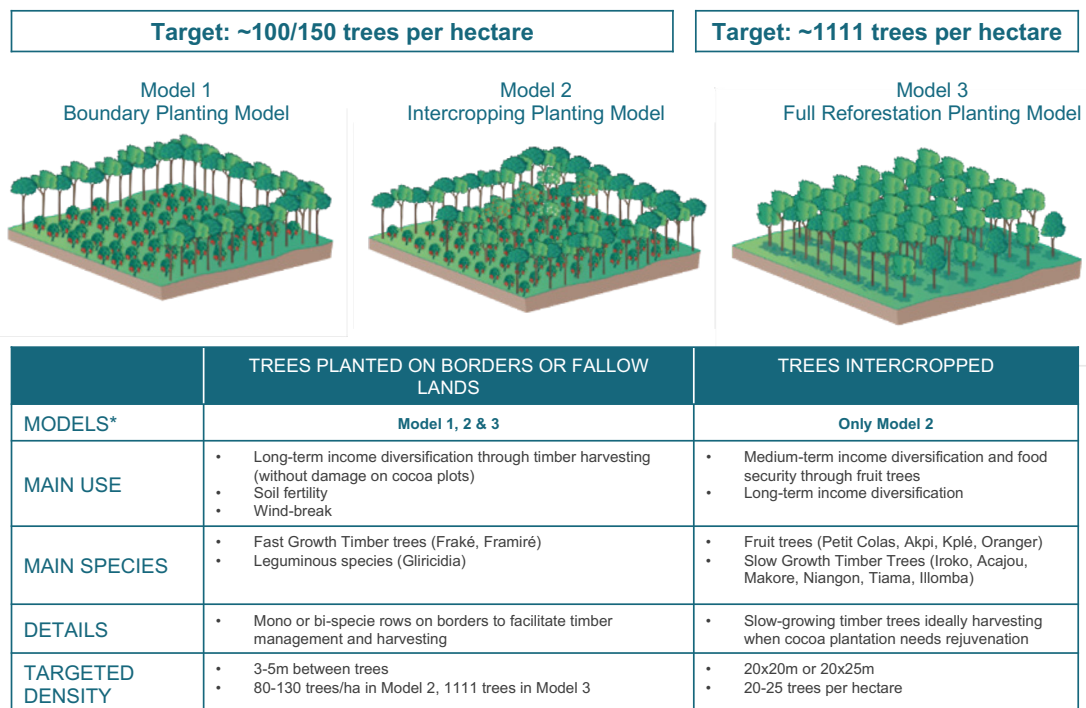


Figure 2. Planting models promoted by Cargill



The species most commonly planted by farmers are two native fast-growing timber trees, framiré/emire (*Terminalia ivorensis*) and fraké/ofram (*Terminalia superba*); and a nitrogen-fixing tree (*Gliricidia sepium*). Farmers also plant fruit trees and slow-growing timber trees, but to a lesser extent. In some cases, farmers dig up seedlings (known as “wildings”) from natural regeneration in other areas, and transplant them to their own plot, to make up for the lack of seedlings of species they want.

After tree planting, the project team maps the agroforestry perimeters with GPS to facilitate monitoring. The first monitoring visit takes place after 3 to 6 months, and the second after 12 to 18 months. Over the years and across sites, the survival rate ranges from 59-85% after the first six months. Farmers receive a financial incentive for each tree alive at monitoring, this partly compensates for the cost of the additional labour needed to plant and manage the tree.

Enabling investments

In addition to this stepwise approach to agroforestry, Cargill and PUR work on improving the conditions that promote the adoption of agroforestry as part of building more resilient farmer livelihoods. Since women and men producers have different opportunities and challenges in accessing services and information to support their decisions, Cargill includes gender considerations in training curriculum and farmer engagement strategies. For example, the company works with women’s groups to strengthen entrepreneurial skills in cocoa-growing communities.

Cargill and PUR also work to facilitate farmer access to land-tenure documentation. Based on earlier work by the European Forestry Institute, a recent study by Cargill, PUR and EFI¹ highlights that investing in land-tenure certificates (USD 27–36/ha) can be cost-effective in leveraging investments in agroforestry. In practice, however, working on land tenure is challenging, given the complexity of the issue, the limited role of the private and civil sector, and the dependence on existing public structures for land-tenure documentation.


Another enabling condition is a link to potential markets for agroforestry products. Cargill is exploring strategies to develop markets by collaborating with timber companies in agroforestry development, but these are still at a very early stage. Moreover, the agroforestry programme has revealed the mistrust between cocoa producers and timber companies, based on past and current experience. Recently, Cargill and PUR have started developing additional income-generating, and livelihood activities, such as beekeeping in Côte d’Ivoire and improved cookstoves construction and distribution in Côte d’Ivoire and Ghana, but it is too early to draw any conclusions about them. In 2022, an awareness raising program through community theatre and radio broadcast has been launched to improve environmental sensitization, understand the benefits of agroforestry, and inform farmers about the new forestry code.

Key lessons and challenges

Agroforestry is about more than planting trees: Incentives for smallholder cocoa farmers to engage in agroforestry involve farm economics, regulations, land-use planning, land tenure and tree ownership, planters’ beliefs and attitudes, commodity prices, and value chains for agroforestry products. The programme developed by Cargill and PUR addresses many of these important factors as possible, while acknowledging that its influence over some of these key factors is limited.

Local presence is crucial for establishing trust and achieving impact: The programme focuses on establishing a local presence through technicians employed by cooperatives and funded by the programme for at least three years. The technicians work directly with farmers. Supporting communities to establish their own tree nurseries has increased farmers’ motivation to plant trees. It is important to note that ensuring a local presence is resource intensive, which makes scaling difficult.

¹ Cargill, PUR and EFI - EU REDD Facility, UNEP and 1 for 20 Partnership. 2020. Making agroforestry work at scale: Economic modelling of cocoa-agroforestry solutions in Côte d’Ivoire. <https://www.purprojet.com/wp-content/uploads/2020/11/Making-agroforestry-work-at-scale-final.pdf>.



Communities need support to establish and manage their own nurseries: At the start of the programme, Cargill and PUR worked with private and public nurseries, but this proved to be inefficient. They then provided support to associations and groups who took responsibility for and ownership of these new nurseries. The nurseries were businesses that benefitted members and their families economically. In many cases the nurseries are run by women's groups. An unexpected outcome was that in one case, a women's cooperative divided the revenue into three parts: to reinvest in future operations to support future income; to split one part equally among members; and to invest one part into community projects.

Understanding the business case for agroforestry is key: In 2020, Cargill, PUR, the European Forestry Institute (EFI) and the 1 for 20 Partnership published an analysis of the impacts of agroforestry on farm economics (see Note 1). It showed that agroforestry has the potential to significantly increase farmer incomes, but that income from agroforestry products is not enough on its own to lift most cocoa-producing smallholders out of poverty. In addition, farmers do not see any actual economic benefit from agroforestry in the first few years. This understanding encouraged Cargill to continue its focus on complementary activities to tree planting, especially those related to market access and land tenure. PUR is working with three cooperatives on income diversification strategies for agroforestry systems, develop market studies, and assess the potential for market linkages and for beekeeping activities.

When gender is explicitly included, women's empowerment follows: Cargill and PUR support women's groups to establish tree nurseries alongside the cooperatives. The revenue is shared among members, and the cooperatives reinvest it to strengthen their nursery businesses. Since 2020, Cargill has also partnered with Empow'Her to complement the agroforestry approach with the development of micro-enterprises, led by women, carrying out agroforestry-related activities.

Incentives for tree planting and growing are vital to success: Even if the amount is very small, financial incentives help to build trust with farmers and their communities. In the future, Cargill would like to explore the possibility of using carbon financing to support cocoa farmers who plant and nurture trees in their landscape.

Lack of tree ownership rights is still a major constraint: This lack of tenure security limits farmers' desire to invest time and money in tree planting, as they are uncertain of whether they actually own the trees, and thus, if they will be able to benefit economically from them in the long term. Cargill and PUR have been liaising about this with cooperatives and national bodies in Côte d'Ivoire, but only to a limited extent. Support for obtaining tenure documentation has not been included in PUR's mandate to date. An upcoming study with Meridia will help to strategize the best way to address this component.

Cooperatives need strengthened capacity to sustain activities beyond the project cycle: To ensure the continuity of the agroforestry strategy, cooperatives need to continue to employ the technicians after the three-year project, which funds them, has ended. It is not certain that they will be able to do this. Another factor that influences the sustainability of agroforestry models is whether farmers have access to markets for agroforestry products to generate income, which will encourage them to continue to plant and maintain trees. Many farmers have had negative experiences in dealing with timber companies, and the timber companies have limited interest in engaging with farmers who are planting tree seedlings, unless they also have mature trees ready for harvesting. This situation needs to be addressed, since timber can be one of the main sources of additional income for cocoa farmers who engage in agroforestry.

Reaching scale remains a challenge: Currently, the agroforestry strategy described here is implemented by a very small proportion of the farmers in Cargill's supply chain. This means that only a relatively small area of the cocoa landscapes is being improved by these agroforestry practices. How to scale these up to a landscape level has yet to be addressed.



Next steps

Scaling up: Cargill, together with clients and other partners, wants to increase the reach of its agroforestry initiatives by scaling up successful approaches. In order to scale up agroforestry, it's important to strengthen enabling factors, such as secure land and tree tenure, access to markets, carbon administration, awareness raising and knowledge transfer. This should also provide more opportunities for income diversification to improve livelihoods. Also, Cargill and PUR are aware of the need to involve timber industries and government entities as key partners in order to overcome the challenges faced by smallholder farmers and to develop an enabling environment. In addition, Cargill is working to translate agroforestry investments into potential carbon benefits.

Integrating agroforestry in the landscape: Agroforestry investments and approaches need to be more fully integrated into existing and emerging landscape-level initiatives. In making agroforestry part of these initiatives, it's important to understand how best to integrate and strengthen the conservation of the remaining forests. In addition, there is currently a strong focus on promoting agroforestry, but Cargill also wishes to develop ways to further incentivize the long-term management of established agroforestry systems. This requires ensuring the continuity of the project at scale, even after the interventions have ended.

More learning and sharing: Agroforestry adoption and its related indicators, including livelihood outcomes, should be reflected within monitoring and evaluation frameworks, and the results should be shared publicly. More exchange of information within the cocoa industry on what helps agroforestry succeed would further support cross-sector learning and increase impacts at scale.