Nestlé Cocoa Plan

Tackling Deforestation

Progress Report 2020

Cocoa & Forests Initiative

Contents

Photography captured on location by Darrell High,
Head of the Nestlé Cocoa Plan.
Cover photo: a prominent Kplé tree shading
a Nestlé Cocoa Plan field near Duékoué, Côte d'Ivoire.

Foreword

Identify the challenges, engage with others and measure progress. Those are the words we began our 2019 Tackling Child Labor report with and are as relevant for our work on addressing deforestation and forest degradation in cocoa.

Cocoa grown illegally in protected areas has no place in our supply chains. We are continuing our efforts to stop deforestation and the destruction of other natural habitats within our agricultural commodity supply chains, including those where cocoa is grown and harvested.

Addressing deforestation in cocoa supply chains is complex and requires a concerted approach. That's why we joined the Cocoa & Forests Initiative (CFI) when it launched in 2017. CFI brings together all the relevant stakeholders – cocoa and chocolate industry, governments of producing countries, cooperatives, farmers and rural communities – who need to come together to solve this multifaceted issue.

Cocoa is mainly a smallholder crop in West Africa. Consequently, any solution to tackle deforestation needs to take into account farmers' livelihoods – effectively providing farmers with viable alternatives to grow the same amount of, or even more, cocoa on less land. As we forge ahead with our efforts to embed sustainability in the cocoa sector, we are aware that we need to balance out the need to protect the environment with the need to provide cocoa farming communities with opportunities for social and economic development.

Since publishing our Action Plan in March 2019, we have recorded good progress across all the main objectives we had set out to achieve. We have made good headway in mapping all the farms that we source from, a critical step in ensuring the cocoa we buy doesn't originate from protected areas. We have scaled up the distribution of shade trees for planting on cocoa farms: this helps protect cocoa plants to cope with drier, hotter conditions, making cocoa farms more climate-resilient. We are also continuing our efforts to improve livelihoods in cocoa farming communities, through trainings on Good Agricultural Practices, income diversification activities and the creation of Village Savings and Loans Associations to improve financial inclusion of rural communities. Finally, we are engaging with communities on the topic of forest protection through awareness-raising activities, and through the financing and distribution of more efficient, less polluting cookstoves.

Addressing deforestation and forest degradation is not our only focus. We are also working on transforming our supply chains – making them more climate-friendly and resilient – to help us achieve our 2050 net-zero pledge. As part of this work, we are deploying nature-based solutions, like reforestation, to absorb more carbon, improve soil health and enhance biodiversity. We will continue to work with the governments of Côte d'Ivoire and Ghana, our partners and other stakeholders to help protect and restore protected forests and promote sustainable cocoa and thriving communities.

ALEXANDER VON MAILLOT

SVP, GLOBAL HEAD
CONFECTIONERY & ICE CREAM
STRATEGIC BUSINESS UNIT,
NESTLÉ SA

Key facts & figures

Forest protection and restoration

Sustainable production and farmers' livelihoods

Social inclusion and community engagement

Côte d'Ivoire

		Ambition by 2022	2018-2019	Status
1.1	**Mapping farmers**			
	% mapped farmers	100%	75%	75%
	Total number of farmers	Approx. 100 000	96 548	
	Mapped farmers*	Equal to above	72 784	
9.1	**Forest tree distribution**	2 600 000	392 018	15%
11.3	**Training farmers**	80 000	68 965	86%
15.1	**Community consultations**	400	294	74%
16.1	**Communities with forest restoration and protection program**	10	0	0%

Ghana

		Ambition by 2022	2018-2019	Status
1.1	**Mapping farmers**			
	% mapped farmers	100%	80%	80%
	Total number of farmers	Approx. 25 000	23 037	
	Mapped farmers*	Equal to above	18 430	
10.1	**Forest tree distribution**	260 000	169 508	65%
11.1	**Cocoa tree distribution**	2 600 000	1 613 715	62%
16.1	**Community consultations**	100	0	0%
18.1	**Communities with forest restoration and protection program, agriculture intensification, gender focus**	9	0	0%

n. KPI reference - see pg. 16-17 for full list of KPI details In progress Delayed

* Our objective was to complete this by end of 2019. This will now be completed by October 2020.

What is the Cocoa & Forests Initiative?

The Governments of Côte d'Ivoire and Ghana and the world's leading cocoa and chocolate companies signed landmark agreements in November 2017 to end deforestation and promote forest restoration and protection in the cocoa supply chain.

This public-private partnership – called the Cocoa & Forests Initiative (CFI) – has been organized by the World Cocoa Foundation (WCF), IDH - the Sustainable Trade Initiative, and The Prince of Wales' International Sustainability Unit (ISU), in partnership with the Governments of Côte d'Ivoire and Ghana. The Prince of Wales launched CFI in March 2017 and reviewed implementation progress in November 2018.

The Frameworks for Action for Côte d'Ivoire and Ghana define core commitments, verifiable actions, and timebound targets required for a deforestation-free and forest-positive supply chain.

The Governments of Côte d'Ivoire and Ghana establish national strategies, policy environments, and governance structures for CFI implementation. They ensure that CFI is linked to similar initiatives with other commodities, and fully aligned with the national Reducing Emissions from Deforestation and Forest Degradation (REDD+) strategies and other relevant national strategies and plans. They provide key operational guidance, and baseline economic, environmental, and social data, to help companies identify and plan the most effective and efficient private investment activities for CFI.

The Governments have prepared comprehensive National Implementation Plans (Côte d'Ivoire, Ghana) that outline public sector priorities, actions and timelines. Since 2017, both governments have fulfilled commitments on the key building blocks for successful CFI implementation, including important revisions to the legal framework for sustainable forest management, adoption of World Bank environmental and social safeguard standards, and preparation and sharing of up-to-date boundary maps of protected areas.

In March 2019, CFI companies released initial action plans for 2018-2022. These initial plans detail how the private sector will deliver the commitments spelled out in the Frameworks for Action. Each company explained how they will support the Framework objectives, based on their role in the supply chain, their strategic priorities, and their cocoa sustainability goals. WCF published a summary of the initial action plans for the cocoa and chocolate industry (Côte d'Ivoire, Ghana).

On the heels of the 2020 International Day of Forests, CFI companies and the governments of Côte d'Ivoire and Ghana reported on the first two years of implementation. Companies are publishing individual reports on progress and outcomes related to the implementation of their specific actions. The following is the aggregate report of company actions.

CFI has been supported by several global development partners, including the Dutch Ministry of Foreign Affairs, the German Federal Ministry of Economic Cooperation and Development, the Global Environment Facility, the Green Commodities Program of the United Nations Development Program, the International Finance Corporation, the United Kingdom's Department for International Development, the United States Agency for International Development, and the World Bank.

CFI is coordinated closely with a wide range of global and local environmental organizations and partnerships, including the Amsterdam Declaration Partnership, Climate Focus, the German Initiative on Sustainable Cocoa, Partnerships for Forests, Proforest, Rainforest Alliance, Tropical Forest Alliance, World Resources Institute, World Agroforestry (ICRAF), and the World Wildlife Fund. The industry is committed to ending deforestation and forest degradation throughout the global supply chain. In 2018, we have expanded CFI from West Africa to Latin America, with the Cocoa, Forests & Peace Initiative in Colombia.

This text has been provided by the World Cocoa Foundation.
World Cocoa Foundation

What are the key commitments in the Cocoa & Forests Initiative?

Cocoa & Forests Initiative activities proceed from three priorities: *(1)* forest protection and restoration, *(2)* sustainable production and farmers' livelihoods, and *(3)* community engagement and social inclusion.

The first priority is the protection and restoration of forests that have been degraded. To this end, the governments and companies have pledged no further conversion of forest land for cocoa production and have committed to the phased elimination of illegal cocoa production and sourcing in protected areas.

Both countries are introducing a differentiated approach for improved management of forest reserves, based on the level of degradation of forests. In 2019, the government of Côte d'Ivoire adopted and published a new forest code which, among other things, put forth policies for the promotion of cocoa agroforestry to restore degraded land, improve forest cover, and promote sustainable livelihoods and agriculture in the classified forests and rural zones. The Ivorian government is currently finalizing the operational decrees that provide further guidance on the new forest policies. Both governments have shared maps on forest cover and land-use, and are currently updating the maps, including socio-economic data on cocoa farmers, which will further inform private sector investments.

To ensure effective implementation and monitoring of these commitments, companies have pledged to develop verifiable monitoring systems for traceability from farm to the first purchase point for their own purchases of cocoa, and to work with governments to ensure an effective national framework for traceability encompassing all traders in the supply chain. The companies will similarly share information with the national satellite monitoring platforms (in development) to effectively monitor progress on CFI, as well as proactively address threats of new deforestation.

The next critical priority is sustainable agricultural production and increased farmer incomes. These are essential pre-requisites for reducing pressure for agricultural encroachment into forests and strengthening the resilience of cocoa farmers to climate change.

The governments and companies are accelerating investment in long-term productivity of cocoa in order to grow "more cocoa on less land." Key actions include provision of improved planting materials, training in Good Agricultural Practices, soil fertility, land tenure reform, and capacity building of farmers' organizations. Sustainable livelihoods and income diversification for cocoa farmers are being accelerated through food crop diversification, agricultural inter-cropping, and development of mixed agroforestry systems and shade-grown cocoa.

The final area of focus is strong community engagement and social inclusion, with a particular focus on women and youth. The governments and companies have committed to full and effective consultation and participation of cocoa farmers in the design and implementation of key actions, and promotion of community-based management models for forest protection and restoration. The governments have adopted social and environmental safeguards are assessing and mitigating the social impacts and risks of any proposed land-use changes on affected communities.

The set of public-private actions represent unprecedented commitments on forest protection and restoration, and sustainable cocoa production and farmers' livelihoods. These combined actions, which are aligned with the Paris Climate Agreement, will play a crucial role in sequestering carbon stocks and thereby addressing global and local climate change.

This text has been provided by the World Cocoa Foundation.
World Cocoa Foundation

Forest protection and restoration

Farmer Kouakou Yao François

In March 2019, we published our Cocoa & Forests Initiative Action Plan that laid out the key activities we will undertake to fulfill our commitment to end deforestation and forest degradation in the cocoa sector. All activities will be implemented in both Côte d'Ivoire and Ghana by 2022.

Since then we have started implementing the Plan and can now report on progress for the first time. Some of our actions are implemented by Nestlé directly while others are implemented by our direct suppliers or by our partner NGOs such as PUR Projet and the International Cocoa Initiative (ICI). In order to drive actions on the ground in Côte d'Ivoire and oversee the relationship with our partners, we recruited a Forests and Environment Manager in the country in September 2019.

All figures here represent cocoa sourced through the Nestlé Cocoa Plan (NCP), our 'direct supply chain' in CFI terminology. The NCP represents 44% of our global cocoa supply, and about 78% of our supply from Côte d'Ivoire and 75% of the cocoa we source from Ghana. We have made a public commitment to source 100% of cocoa for our confectionery products from the NCP by 2025.

Forest Restoration and Preservation
This section describes:

1. The actions we have undertaken to ensure that there is no further conversion of forest land for cocoa production, and
2. How we are eliminating any illegal cocoa production and sourcing in protected areas (i.e. national parks and protected forests).

This includes actions such as mapping farms in our NCP supply chain, assessing risks of deforestation, distribution of multi-purpose trees and agroforestry projects.

Deforestation has continued to impact this forest in Côte d'Ivoire since 2002.

Côte d'Ivoire

Farm mapping

The land of 72 784 farmers, representing 75% of the farmers in the Nestlé Cocoa Plan in Côte d'Ivoire, has been mapped by walking field boundaries with global positioning system (GPS) trackers. This has required people to walk a total of 90 000 km, often through difficult terrain. While we did not reach our target to map 100% of the farms by end of 2019, our suppliers are committed to completing this task by October 2020 and will keep their databases up to date as farmers enter or leave coops.

The % mapped for each supplier is shown in the table.

The reasons for not achieving the target include:

- Poor digital data quality due to users' lack of familiarity with the technology, requiring a second mapping
- Farmers not being available during mapping (travels, sickness, etc.)
- Farmer rotation within cooperatives (lost effort in mapping farmers who have left and catching up with those who join)

Risk assessment

Our suppliers have compared mapped farms to maps of national parks and the lower-graded 'forêts classées' (classified forests). While we have found no farms in national parks, cooperatives supplying us have found some farms in classified forests. While CFI does not oblige us to remove farms in classified forests from our supply chain, it is a requirement under certification standards. So far, we believe about 3 700 farmers have lost their certification as a result. In the future, and depending on government decrees, they will be part of 'agroforêt' (agroforestry) opportunities. We believe this would be an important step in ensuring the right balance between farmers' livelihoods and forest protection. As required by CFI, our suppliers have implemented simple systems for farmer exclusion: farms are mapped and are excluded from the supply chain if they are in national parks or forest reserves.

Traceability

All NCP cocoa sourced from Côte d'Ivoire is certified by UTZ or Fairtrade and is traceable. The coop maintains records of all purchases from each farmer, and our supplier maintains traceability up to their warehouse, from which point a mass balance* system may be used. All of this data is recorded in the UTZ or Fairtrade systems. Cargill is implementing a more advanced system using a barcode on each bag.

Multi-purpose tree distribution

We distributed 182 683 forest and fruit trees from six Nestlé-run nurseries and 177 335 forest and fruit trees from supplier-run nurseries. This is a substantial scale up from the 32 000 trees distributed in 2018. Various challenges have been encountered: these include quality and availability of seeds, germination methods, time to grow in nursery until ready for planting, transportation of plants, as well as persuading farmers to nurture them once in the fields. On the positive side, after awareness-raising sessions we are seeing much more interest in planting these trees.

The species we are distributing include: Fraké, Framire, Cedrella, Tiama, Akpi, Foue, Bété, Assamela and 'Petit Cola' (Garcinia Kola). These are a mix of native forest trees and local fruit trees, and all have a value as wood for cooking or building, or fruit for eating or cooking in local cuisine.

Sensitization about importance of protecting forests

This is happening at several levels, including farmer field schools and individual farmer coaching, as well as within our agroforestry projects.

Agroforestry

We have kicked off two agroforestry projects with NGO Pur Projet, one with coop CAYAT and our supplier Cargill, the other with SOCOOFEM and our supplier Sucden. Communities have been selected and community awareness-raising about the importance of multi-purpose trees such as native forest and fruit trees has begun. The sessions are participatory, where farmers explore the advantages of trees and then sign up voluntarily to the program. Nurseries have been set up and tree distribution programmed for June-July 2020. The typical format that farmers are choosing is to plant timber trees on the border of the field spaced at 3-5 meters and fruit trees spaced within the field, aiming for about 100 forest and fruit trees per hectare. We are aiming for 200 farmers to adopt the program in the communities we are working in, with each converting one hectare.

Ghana

Farm mapping

This has progressed well in Ghana, reaching 18 430 farmers or 80% of all NCP farmers, with the remainder to be completed in the coming months.

Challenges found in Ghana with mapping included:

- Issues with IT equipment
- Overlaps between mapped fields, which need to be resolved and re-mapped

Risk assessment

668 farmers with 912 fields have been found in protected areas (national parks and forest reserve) in Ghana. These have been taken out of NCP farmer lists. Some of these farms have been established for over 20 years but fall within what is officially designated as 'forest'. Local farmers may contest the classification as forest.

Multi-purpose trees

We've already distributed over 169 000 fruit and forest trees so far so should comfortably exceed our original 2022 target for Ghana.

Filling pots in Nestlé nursery, Duékoué, Côte d'Ivoire

Percentage of mapped farmers in Côte d'Ivoire

Supplier	Total number NCP farmers	NCP farmers mapped until end 2019	%
Barry Callebaut	9 097	6 511	72%
Cargill	20 702	18 921	91%
Cocoanect/ETG	8 721	8 334	96%
Ecom	7 080	6 244	88%
Farmstrong	3 719	3 719	100%
Olam	34 093	18 764	55%
Sucden	6 238	3 780	60%
Touton	6 898	6 511	94%
Total	**96 548**	**72 784**	**75%**

*This means that the certified cocoa was produced by an UTZ-certified farmer, but was not kept physically separated from non-UTZ cocoa throughout the whole supply chain.

REFORESTING THE COCOA FIELDS

At the Nestlé demo plot in Côte d'Ivoire, local cocoa farmers come to learn best practices and see real-world impact on productivity. In the middle of the cocoa field, there is a tree with a trunk at least ten times as thick as the others around it. It disappears up through the cocoa trees' low canopy, its higher reaches invisible from the ground.

These taller trees not only provide shade for the cocoa field below, but also boost biodiversity which benefits the entire ecosystem, including soil health. As they are often fruit trees, they can provide cocoa farmers with opportunity for additional sources of income and nutrition.

Abdoulaye Sankara is a 58-year old cocoa farmer from the SOCOOPAM cooperative. A father of nine children, he has a successful four-hectare cocoa farm. Even before the agroforestry program began, he had started intercropping his cocoa field with fruit and forest trees. Now, as well as tending his own crop, he helps other cocoa farmers to understand the longer-term value of sacrificing precious space that could otherwise be planted with more cocoa trees.

He explains, "I could see that my cocoa trees were thirsty. If there are no tall trees, there is no rainfall, and the sun shines too harshly on the cocoa. So, on my parcel of four hectares I planted 70 trees – forest trees, fruit trees, all kinds of things. I think it has really helped the development of my fields." Walking through his farm, he gesticulates toward a healthy young tree. "Over there, that's a three-year-old iroko tree and already it's taller than a full-grown cocoa tree. The cocoa trees underneath can live a peaceful life.

Now, other farmers come to see me and find out what I'm doing. They have seen that my farm is doing well, and how important trees are."

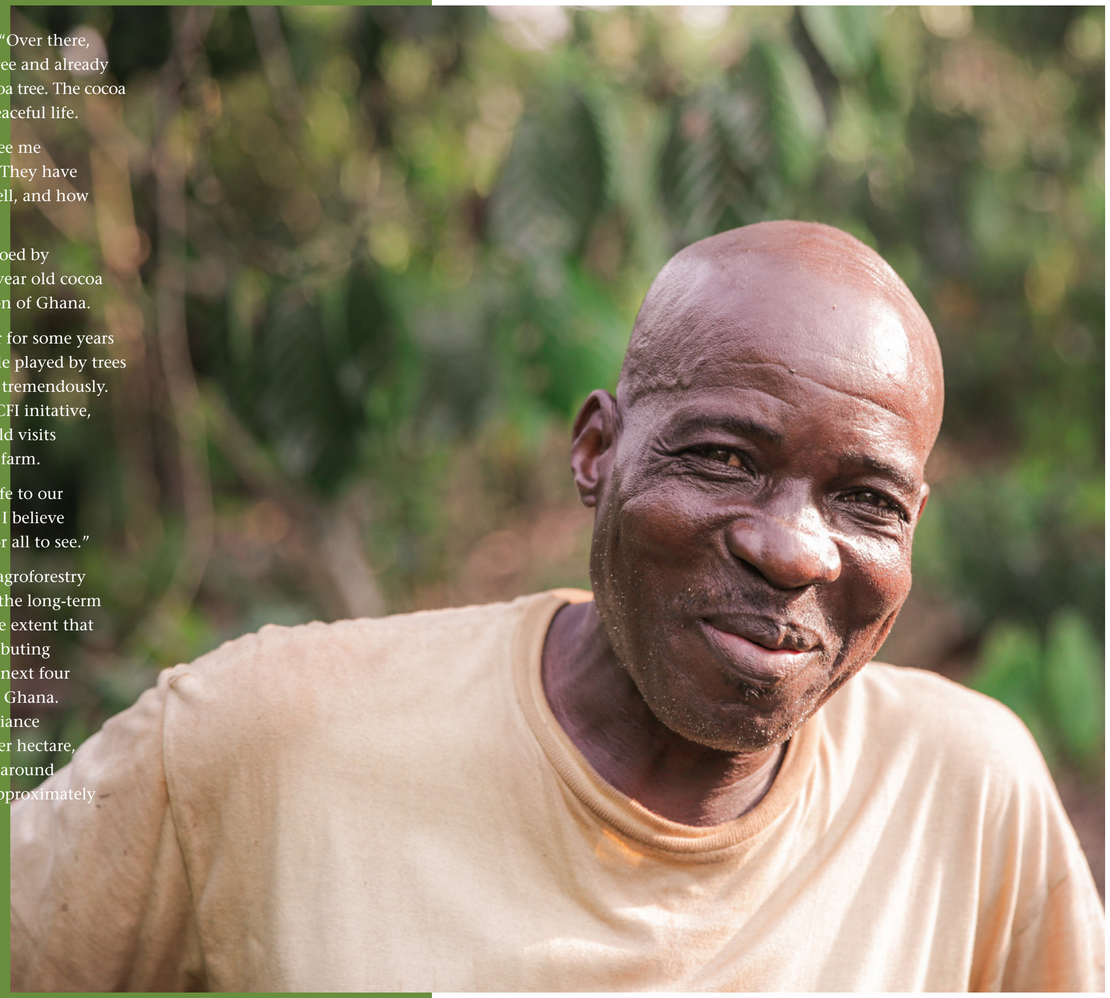
Abdoulaye's experience is echoed by that of Dominic Odura, a 47-year old cocoa farmer from the Ashanti region of Ghana.

"Though I have been a farmer for some years now, my knowledge of the role played by trees in a cocoa farm has increased tremendously. I received 42 trees under the CFI initative, and I also got training and field visits to help plant the trees on my farm.

We were told that trees give life to our cocoa trees, just like humans. I believe it now. The results are clear for all to see."

Though not yet widely used, agroforestry is perceived as being vital for the long-term sustainability of cocoa – to the extent that the Nestlé Cocoa Plan is distributing 2.8 million plantlets over the next four years across Côte d'Ivoire and Ghana. Together, at the Rainforest Alliance standard density of 18 trees per hectare, the trees would cover an area around the size of Greater London (approximately 156 000 hectares).

Bété tree seedlings in nursery



Farmer Sankara Abdoulaye

Sustainable production and farmers' livelihoods

This section describes our actions aimed at ensuring the long-term productivity of cocoa in order to grow "more cocoa on less land" and expanding income generating opportunities for farmers.

These are essential pre-requisites for reducing pressure for agricultural encroachment into forests and strengthening the resilience of cocoa farmers to climate change. These activities are part of the Nestlé Cocoa Plan and include farmer training, income diversification and improving financial inclusion.

Côte d'Ivoire

Farmer training
We have trained over 68 000 farmers, and 87 coops in the Nestlé Cocoa Plan are certified by UTZ or Fairtrade. Training and certification are not enough by themselves and we focus on encouraging the adoption of Good Agricultural Practices. In this, we are following the tough standards established by CocoaAction. Last year, we found 28% of farmers in our supply chain were following the CocoaAction adoption standard of four out of five Good Agricultural Practices, one of which must be pruning. This is an improvement from 21% the year before.

In order to encourage adoption, we have tried to innovate. Pruning is critical and we have helped some farmers convert their fields to demo plots to show the impact of true and thorough pruning. The demo plots are showing a productivity improvement from around 0.5 tonnes a hectare to 1-1.5 tonnes a hectare. Having convinced farmers of the merits of this method, we have been encouraging and training groups of farmers to set up pruning groups to prune each others' farms. These groups have so far pruned 729 farms. We are now adding forest and fruit trees to the demo plots where needed.

To supplement training, we have developed videos to be shown in villages in the evening, using low cost portable battery-powered projectors. Subjects covered include pruning, weeding, crop protection application, improved cookstoves, water treatment, bush fire prevention, and carrying heavy loads. We will add agroforestry and the new forest code this year.

Income diversification
Diversifying farmer income revenues is essential if we are to realize the ambition of growing 'more cocoa from less land'. We have introduced various initiatives in recent years, from manioc shoot gardens and plantain suckers, to vegetable plots, and rearing animals such as chicken and cattle. For instance, within the Cocoa Livelihoods Partnership we provided improved manioc shoots to 1 875 women across 45 coops. The average farmer is already diversified without needing any prompting from the company buying their cocoa. It is difficult to gather actual data on 'diversification' which relates to our activities over the past 8-10 years. As a proxy, we have reported the latest figures from our suppliers.

Promoting financial inclusion
Modernization is critical in improving farmer livelihoods and we have been encouraging the adoption of mobile money technology, with some suppliers paying the premium this way. It is encouraging to see an uptake of 22 769 farmers with a savings account.

Village Savings and Loans Associations are formed to help women (farmers or spouses of farmers) help create a culture of saving. They form a club and all the participants contribute on a weekly basis. They can take loans when needed, such as to finance small business opportunities, and funds are returned at the end of the year. They also have a solidarity fund to help participants in need. So far, VSLAs have been rolled out to 8 132 people in farming households.

Ghana

Distributing of improved cocoa planting material
We have distributed 1.6m cocoa trees so far, and therefore have increased our 2022 target from 1.5m to 2.6m.

Diversification
The Nestlé Cocoa Plan has been encouraging the take up of other income-generating opportunities such as plantain sucker production and beekeeping.

Promoting the financial inclusion of farmers
We are encouraged by the take up of mobile money technology for certification premium payments (770 farmers), and the enthusiasm for Village Savings and Loans Associations (VSLAs) which have 1 425 farmers in them so far.

CREATING A **BUZZ** AROUND ALTERNATIVE INCOMES

Too much reliance on any one crop leaves farmers exposed to price changes, so it makes sense to diversify sources of income. Diversifying also spreads income out from the main cocoa harvests. Beekeeping is a good alternative for farmers as it doesn't require extra land and produces honey which they can use or sell.

In Ghana, 13 farmers have been provided with hives, bees and protective equipment. We have also given them training in making and marketing their honey. Although the pilot program is still ongoing, the initial results appear positive.

In Côte d'Ivoire we have begun training 257 women to keepbees. The women are formed into groups of 12 or so with a lead beekeeper. We provide 35 hives of bees to each group and hope to harvest 1 500 litres of honey this year.

Kwame Abdue, Cocoa Farmer and master trainer in Beekeeping in the Nestlé Cocoa Plan in Ghana is pleased with the outcome of the program so far, telling us "I recommend beekeeping to all of the farmers in the cooperative as a relatively easy way of getting additional income."

Farmers' bees in Ghana

CREATING **ENVIRONMENTAL** AND **FINANCIAL STABILITY**

In the cocoa-growing communities of Côte d'Ivoire and Ghana, managing the money you earn can be difficult. Many villages are entirely cut off from access to basic financial services like banks or building societies. This means that families are unable to easily manage their finances.

The Nestlé Cocoa Plan supports Village Savings and Loans (VSLA) schemes that enable farmers and their wider communities to invest even small amounts and to earn interest on their incomes. It also offers a loan fund from which members can borrow to fund small business opportunities.

Currently, 8 000 farmers within the Nestlé Cocoa Plan are participating in the schemes. The VSLAs are divided into small groups of 15-25 people in the local community who save together. All transactions are carried out in front of all the other members of the Association to ensure transparency and accountability.

Along with 40 other women from the Lokosso village, Lydia Siaka joined her local VSLA when it was set up five months ago. They meet every Monday morning at 8 a.m. and she says there is a great sense of solidarity and teamwork in the meetings. The VSLA has helped local women in their hour of need, she explains. "If there is a death in the family, or a birth or a big event like a baptism, then we visit the family with a cash donation. That brings the family happiness and peace of mind."

We have committed to setting up a further 100 VSLA groups, which are expected to benefit at least 2 000 women.

Local AVEC (VSLA) group in Lokosso, Côte d'Ivoire

Farmer pruning a cocoa tree

LESS IS **SOMETIMES MORE**

To reduce the incentive to expand cocoa production into forest areas we need to produce more cocoa from existing land.

One of the most effective ways to increase yield from existing cocoa trees is correct pruning techniques. We have found farmers are reluctant to prune trees, as they fear a reduced production from a smaller tree. However, if they are not pruned then trees put energy into branches and leaves, while a pruned tree puts it into producing cocoa fruits. Well-pruned trees also have less dense canopies, allowing more air to circulate. This reduces the number of diseased pods.

Trying to convince farmers of this is far from straightforward though. Farmers are understandably concerned about cutting away a branch if it is still producing a couple of cocoa pods a year. Nestlé is helping farmers overcome these fears, by creating demonstration plots on farmers' fields to show the yield potential, setting up groups of farmers to prune each other's fields and introducing video training.

Speaking to us in front of his plot, Ivorian cocoa farmer Kouakou Yao François told us about his experience with pruning training and its impact on his crop:

"During the training, we were shown how and why to prune our cocoa trees, and when is the right time to do it. At the beginning, I was really doubtful and thought my trees might die, that it might damage them down to the roots. But actually, pruning has made them much stronger and I have a better yield.

Thanks to the training, I can say I've become a real cocoa producer. I've really noticed that my field has changed."

Community engagement and social inclusion

Cecile Goho Bonahin with improved cookstove

This section describes our activities aimed at consulting and having cocoa farmers participate in the design and implementation of key actions, as well as promote community-based management models for forest protection and restoration.

Community awareness-raising on agroforestry

Côte d'Ivoire

Cookstoves
836 improved cookstoves have been distributed. This was after an intense pilot phase of testing 20 different versions of the stoves with people in villages – with two versions finally selected. We now subsidize 50% and our supplier 20% of the cost of the stoves, bringing the cost to the farmer down from about 10 000 CFA (EUR 15) to 3 000 CFA (EUR 4.50). Improved cookstoves have three-fold benefits:

- Reduced wood use reduces pressure on forests
- Less smoke reduces pollution, which in turn reduces women's lung disease
- Less need for wood means less carrying of wood, which is typically done by women and children.

We estimate that each stove will reduce wood consumption by 1.8 tonnes per year, saving families approximately EUR 64 per year. Challenges include persuading families to buy the new stoves when they cost more than the traditional alternative. We tried both stainless steel models and cheaper galvanized steel ones. Unfortunately, the cheaper galvanised ones have not lasted well, so we have offered repairs for those and will only subsidize stainless steel models from now on.

Community awareness-raising
Raising awareness among farmers and communities on the importance of forest conservation is being done in a variety of ways. The topic has been included in most farmer field schools so the majority of NCP farmers are exposed to the subject. However, we know from experience that real behavior change will require more effort, and we are exploring different models. One of our suppliers is linking VSLAs with community awareness-raising and we await to see impact of this innovation. Some of our suppliers have claimed that up to 200 communities fall under their community-based forest protection and restoration plans. However, we are unconvinced that they reach the expected CFI standards so have not included them in our figures. Community-based action plans for forest preservation and restoration should be gender and youth inclusive. Full community involvement will be resource intensive and will take time to develop. We are committed to this and will keep reporting on progress made.

Community forest preservation and restoration
We are investigating how to best work with communities to preserve and restore local forests. Often villages have a patch of untouched forest called 'sacred forest' but need help protecting this in the face of demographic pressure. Sometimes they have some degraded forest which is not classified, which they need help restoring. We are looking at ways to help in coordination with local units of the Ministry of Water and Forests (MINEF). This will start with one community as a learning exercise for ourselves and our suppliers in 2020.

Ghana

In Ghana, we will aim to start these activities in 2020.

Improved cookstove

Walking around a village in a cocoa-growing region, you can invariably smell the smoke coming from traditional cookstoves. Placed in the open air near houses, the stoves are fuelled by wood chopped from nearby fields and forests.

The stoves are used every day to prepare almost all the meals the family will eat. Large pots of stew seem to be constantly on the boil. A central part of village life, the traditional cookstoves consume a lot of firewood. Even before dawn, you can see women carrying loads of firewood back to the village.

Working with Cocoanect, the Nestlé Cocoa Plan has helped to distribute 836 new cookstoves, benefiting over 4 000 people. Nathan Bello, Nestlé Cocoa Plan Manager Côte d'Ivoire, explains "The improved cookstoves heat up better and maintain the heat for longer. They also produce less smoke and use less wood for fuel. And of course, by using less wood, we reduce the pressure on the forest and the environment."

The cookstoves are introduced to the villagers in group demonstrations. Among the people who decided to invest in a new cookstove were Cecile Goho Bonahin and her daughter, who told us about the workload involved in using traditional cookstoves to prepare meals for their family of eight. "It's always women and girls who do the cooking and it's us who fetch the wood. Before, we could find wood easily nearby. But now, we can't find any, we have to walk really far to find wood. So we have to buy firewood to make our family's food in time."

Stirring her pot of stew, she tells us "I like this new stove, it doesn't smoke too much. And it costs us less to run as we don't need to buy as much wood. With much less wood you can cook more food."

Tackling deforestation is complex and needs to be considered from all angles. However, any initiative will be more successful when communities benefit along with the forests.

Looking forward to 2020 and beyond

Since announcing our action plan last year, we have been working hard to fulfill our commitments to end deforestation and restore degraded forests in the cocoa sector in Côte d'Ivoire and Ghana. We believe we have made good progress. However we will continue to ramp up our activities in both countries.

Resilient farming communities for a thriving Cocoa and Forest Landscape
Beyond the activities we are carrying out within our cocoa supply chain, we are also looking at having a bigger impact on the ground. This is why we are creating partnerships with the objective of developing resilient farming communities for a thriving cocoa and forest landscape.

Such partnerships will look at ending deforestation in and restoring protected forests, promoting regenerative agriculture practices around these and strengthening the resiliency of cocoa farming communities living at their periphery.

Sacred forest in Toa Zeo village, Côte d'Ivoire

Farmer Kouakou Yao François

Côte d'Ivoire

Farm mapping
We will complete mapping by October 2020.

Nurseries
We have consolidated the Nestlé supervised nurseries to three, based in priority regions: Duékoue, Adzopé and San Pedro. They have a larger capacity of up to 120 000 plants. With this larger scale we can take better care of the needs of each species and will have strong plants at the right time for planting. We have changed some procedures based on our learnings in 2019, such as sowing seeds later in the season, and trying new germination techniques for specific species.

Our suppliers will continue to run further nurseries.

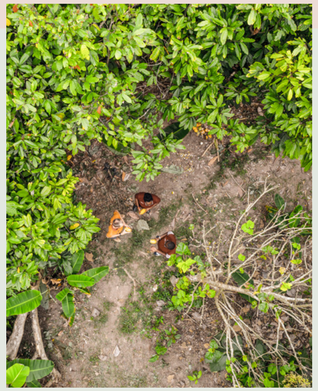
Sustainable livelihoods
We've started working with the Royal Tropical Institute (KIT), a research institute from the Netherlands, to understand the levers to earning a living income so that we can help an increasing proportion of Nestlé Cocoa Plan farmers to achieve it. KIT will assess the impact of Nestlé's interventions on the most successful farmers who manage to make a good living from cocoa with a view to defining the pathways to scale this to more farmers. KIT will be in the field during two periods this year and will report back during the year to help us expand and increase effectiveness of our interventions.

We will start community forest preservation and restoration with one community as a learning pilot.

Ghana

Farm mapping will be complete by mid-year and will be kept up to date. We will continue the distribution of cocoa and forest trees, and the promotion of mobile money, savings accounts and VSLAs.

A priority will be to work with our partners to develop our plans for the community engagement and social inclusion pillar.



Top view of forest mapping in action

Annex - Côte d'Ivoire

Forest Protection and Restoration

Commitment	Actions	Indicator	2022 Target	# through direct investment in 2018	# through direct investment in 2019
1. No further conversion of any forest land (as defined under national regulations, and using HCS and HCV methodologies) for cocoa production	1.1 Conduct farm mapping within direct supply chain to identify and collect cocoa farm boundaries to ensure cocoa is not being sourced from forest lands, National Parks and Reserves, and Classified Forests	• # farms mapped	**100 000**		**72 784**
	1.2 Conduct deforestation risk assessments in all direct sourcing areas	• # ha included in deforestation risk assessment			**236 858**
2. Elimination of cocoa production and sourcing in National Parks and Reserves in line with promulgation and enforcement of national forest policy and development of alternative livelihoods for affected farmers	2.1 Adopt and publish a system for excluding farmers in the direct supply chain with cocoa production in protected areas	• Yes/No			**Yes**
	2.2 All farms found in National Parks and Reserves reported to government	• % farms in Natl Parks & Reserves reported to government			**100%**
	2.3 Support cocoa farmers' transition to alternative livelihoods	• # of total farmers in protected areas receiving assistance for alternative livelihoods			**0**
3. No sourcing of cocoa from National Parks and Reserves through companies' traceable direct sourcing programs	3.1 Implement traceability tools/technology to ensure no cocoa purchases originate from National Parks or Reserves (all forest areas)	• % of direct sourced cocoa is traceable to farm-level			**100%**
4. A differentiated approach based on the level of degradation of forests for Classified Forests will be developed and translated into a national forest restoration strategy	4.1 Support the restoration of Classified Forests by working with cocoa farmers, the government and the forestry industry to implement contracts for mixed agroforestry as a restoration and livelihoods intervention	• # farmer 'agroforestry restoration' contracts signed			**0**
		• # hectares restored in Classified Forests			**0**
5. Legal protection and management status for the remaining forests of Côte d'Ivoire in the Rural Domain	5.1 Cooperate with the government on enforcement to prevent deforestation in the legally protected forest estate (rural domain)	• # hectares of forest in rural domain protected			**0**
6. Up-to-date maps on forest cover and land-use for the different forests, and socio-economic data on cocoa farmers developed and publicly disclosed, and detailed operational guidelines prepared	6.1 Support the government's forthcoming adaptive management plans for different forest areas to benefit the livelihoods of forest-dependent cocoa communities	• Yes/No			**Yes**
	6.2 Participate in the development and operation of land-use and land-use planning at national and regional levels by sharing existing land use maps with government	• Yes/No			**Yes**
7. Public enforcement of the new Forest Code and its subsequent guidelines, and public sector governance will be strengthened	7.1 Promote and participate in awareness-raising campaigns to educate farmers on the new Forest Code	• # farmers reached at awareness events	**100 000**		**29 330**
	7.2 Update farmer engagement materials and training with the revised Forest Code	• Yes/No			**Yes**
8. Public-private collaboration to mobilize resources for forest protection and restoration	8.1 Mobilize finance for forest protection and restoration	• $ mobilized towards forest protection and restoration			**0**
		• # hectares with forest protection and restoration financing			**0**
		• # farmers participating in PES contracts			**0**
9. Public-private collaboration to identify good practices, technical guidance and incentive mechanisms for forest restoration and agroforestry	9.1 Support distribution and planting of multi-purpose trees for on-farm restoration via agroforestry	• # multi-purpose trees distributed for on-farm planting	**2 600 000**	**32 000**	**360 018**
		• # hectares cocoa agroforestry developed			**0**
	9.2 Support distribution and planting of native trees for off-farm restoration (reforestation)	• # native trees planted off-farm	**20 000**		**12 553**
		• # ha of forest area restored	**10**		**2**
10. Government creation, in collaboration with all stakeholders, of a public-private fund to support financing of protection and restoration of HCV forest areas	10.1 Support the creation of the public-private forest conservation and rehabilitation fund	• $ contributed to fund			**0**

Sustainable Production and Farmers' Livelihoods

Commitment	Actions	Indicator	2022 Target	# through direct investment in 2018	# through direct investment in 2019
11. Promote investment in long-term productivity of high quality cocoa in environmentally sustainable manner and grow "more cocoa on less land"	11.1 Distribute improved cocoa planting material	• # improved seedlings distributed to farmers			**N/A**
	11.2 Establish and/or provide cocoa nurseries with improved cocoa planting material	• # of nurseries with improved cocoa seedlings			**N/A**
	11.3 Train farmers in Good Agricultural Practices (GAPs)	• # of farmers trained in GAPs	**80 000**		**68 965**
	11.4 Support cocoa farm rehabiliation	• # of hectares of cocoa rehabilitated			**N/A**
12. Promote sustainable livelihoods and income diversification for cocoa farmers	12.1 Promote farm-level crop diversification	• # farmers applying crop diversification			**29 338**
	12.2 Support distribution and planting of multi-purpose trees for on-farm restoration via agroforestry	• # multi-purpose trees distributed for on-farm planting			**Already reported 9.1**
13. Promote financial inclusion and innovation to deepen farmers' access to working capital and investment funds for production and farm renovation	13.1 Promote farmer savings	• # farmers in supply chain with a savings account	**30 000**		**22 769**
		• # farmers participating in VSLA groups	**10 000**		**8 132**
	13.2 Offer financial products to farmers	• # farmers offered a financial product	**30 000**		**25 859**
14. Improve supply chain mapping, with the goal of 100% of cocoa sourcing traceable from farm to first purchase point. An action plan will be developed for traceability, which will be implemented step-by-step to achieve full traceability and verification, applicable to all by end-2019.	14.1 Conduct farm mapping within direct supply chain to identify and collect cocoa farm boundaries to ensure cocoa is not being sourced from forest lands, National Parks and Reserves, and Classified Forests	• # farms mapped within direct supply chain			**Already reported 1.1**
	14.2 Implement traceability system to farm level in direct supply chain	• % of direct sourced cocoa traceable from individual farms to first purchase point			**Already reported 3.1**

Social Inclusion and Community Engagement

Commitment	Actions	Indicator	2022 Target	# through direct investment in: 2018	# through direct investment in: 2019
15. Full and effective information sharing, consultation, and informed participation of cocoa farmers and their communities who are affected by proposed land-use changes	15.1 Organize cocoa community consultations on the implementation of the Frameworks for Action	• # communities with consultation sessions	**400**		**294**
16. Promote community-based management models for forest protection and restoration	16.1 Establish and/or support community-based natural resource management programs for forest restoration/protection	• # of cocoa communities with active forest restoration and protection program			**0**
		• # hectares under CBNRM			**0**
17. Development of action plans for forest protection and restoration, and sustainable agricultural intensification that are gender and youth sensitive	17.1 Develop forest protection & restoration and agriculture intensification action plans that are gender and youth sensitive	• # cocoa communities with gender-focused programs			**0**
		• # cocoa communities with youth-focused programs			**0**

Annex - Ghana

Forest Protection and Restoration

Commitment	Actions	Indicator	2022 Target	# through direct investment in 2018	# through direct investment in 2019
1. No further conversion of any forest land (as defined under national regulations, and using HCS and HCV methodologies for cocoa production	1.1 Conduct farm mapping within supply chain to ensure cocoa is not being sourced from forest land	• # farms mapped	**100%**	**17 000**	**80.3% of 18 430**
	1.2 Conduct deforestation risk assessments in all sourcing areas	• # hectares included in risk assessment		**0**	**10 725**
2. No production and sourcing of cocoa from National Parks, Wildlife Sanctuaries, and Wildlife Resource Reserves, except from farms with existing legal status	2.1 All farms found in protected areas will be reported to the Government	• Yes/No	**Yes**	**TBD by technical working group**	**TBD by technical working group**
	2.2 Adopt and publish a system for excluding farmers in the supply chain with cocoa production in protected areas	• Yes/No	**Yes**	**Yes**	**Yes**
3. A differentiated approach for Forest Reserves will be adopted, based on level of degradation; with elimination of sourcing of cocoa in less degraded reserves (Cat.1) as of 31 December 2019; and production and sourcing for a period up to 25 years through MTS in more degraded reserves (Cat. 2)	3.1 End sourcing from all farms identified within Category 1 Forest Reserve areas by 31 December 2019	• Yes/No	**Yes**	**No**	**Yes**
	3.2 Support farmers in Category 2 Forest Reserve areas in their restoration and reforestation programs	• # hectares of Category 2 Forest Reserve areas restored		**0**	**0**
4. In highly degraded off-reserve forest lands, cocoa production and sourcing will continue, supported by climate smart cocoa and MTS	4.1 Train farmers in off-reserve forest lands in CSC production including cocoa agroforestry systems	• # farmers trained in CSC best practices	**13 000**	**0**	**0**
	4.2 Train farmers in Modified Taungya System (MTS)	• # farmers trained in MTS		**0**	**0**
5. In all areas, a multi-stakeholder landscape approach will be followed, with an initial focus on the six Climate-Smart Cocoa Hotspot Intervention Areas as defined under GCFRP	5.1 Join one/several HIA(s) in the cocoa-sourcing area	• # HIA(s) joined in cocoa sourcing areas		**0**	**0**
	5.2 Implement GCFRP CSC Good-Practice Guidelines with farmers within the HIAs	• # farmers within HIAs have adopted CSC best practices		**0**	**0**
6. Up-to-date maps on forest cover and land-use, socio-economic data on cocoa farmers, and detailed operational guidelines covering Category 1 and 2 reserves, will all be developed and publicly disclosed	6.1 Share maps and data with appropriate government bodies	• Yes/No	**Yes**	**No**	**No**
	6.2 Participate in the development of operational guidelines for Category 1 and 2 Forest Reserves	• Yes/No	**Yes**	**No**	**No**
7. Land and tree tenure reforms, and benefit sharing arrangement to incentivize land owners and users to retain naturally regenerated trees will be accelerated, including approval of CREMA mechanism	7.1 Support farmers with tree registration	• # trees registered	**200 farmers in pilot**	**0**	**0**
	7.2 Support cocoa farmers to acquire land (tenure) documentation	• # farmers with secure land titles		**0**	**0**
8. Public sector forest law enforcement and governance will be strengthened	8.1 Promote awareness-raising campaigns to educate farmers on forest law enforcement and tree tenure provisions	• # farmers reached at awareness events	**13 000**	**0**	**0**
9. Public-private collaboration to mobilize new sources of funding for forest protection and restoration, and to incentivize farmers adoption of environmentally sustainable cocoa production will be developed	9.1 Mobilize finance for forest protection and restoration	• Amount of $ mobilized towards forest protection and restoration		**0**	**0**
		• # hectares with forest protection & restoration financing		**0**	**0**
		• # farmers participating in PES contracts		**0**	**0**
10. Public-private collaboration will be enhanced to identify good practices and technical guidance for forest conservation and restoration, shade grown cocoa, and MTS in Forest Reserves	10.1 Support distribution and planting of multi-purpose trees for on-farm restoration via agroforestry	• # multipurpose trees distributed for on-farm planting	**260 000**	**108 472**	**61 036**
		• # hectares of cocoa agroforestry		**0**	**0**
	10.2 Support distribution and planting of native trees for off-farm restoration (reforestation)	• # native trees planted off-farm	**10ha community forest**	**0**	**0**
		• # hectares of forest area restored		**0**	**0**
	10.3 Train farmers in Modified Taungya System (MTS)	• # farmers trained in MTS		**0**	**0**

Sustainable Production and Farmers' Livelihoods

Commitment	Actions	Indicator	2022 Target	# through direct investment in: 2018	# through direct investment in: 2019
11. Promote investment in long-term productivity of high quality cocoa in environmentally sustainable manner and grow "more cocoa on less land"	11.1 Distribute improved cocoa planting material	• # million improved seedlings distributed to farmers	**2 600 000**	**762 799**	**850 916**
	11.2 Establish and/or provide cocoa nurseries with improved cocoa planting material	• # nurseries with improved cocoa seedlings		**55**	**66**
	11.3 Train farmers and producer organizations in the latest Good Agricultural Practices (GAPs)	• # farmers trained in GAPs	**26 000**	**25 558**	**17 641**
	11.4 Support cocoa farm rehabiliation	• # of hectares of cocoa rehabilitated	**1 300**	**129**	**220**
12. Develop implementation plans, including mapping of exact areas to intensify establishment of shaded cocoa landscapes in line with GCFRP, with the promotion of Climate Smart Cocoa and the national Climate Smart Cocoa Standard	12.1 Promote the Climate Smart Cocoa Standard	• # of farmers adopting CSC		**0**	**0**
13. Promote sustainable livelihoods and income diversification for cocoa farmers	13.1 Support distribution and planting of multi-purpose trees for on-farm restoration via agroforestry	• # multi-purpose trees distributed for on-farm planting			**Already reported 10.1**
		• # hectares of cocoa agroforestry			**Already reported 10.1**
	13.2 Promote farm-level crop diversification	• # farmers applying crop diversification		**50**	**To follow**
14. Promote financial inclusion and innovation to deepen farmers' access to working capital and investment funds required for production and cocoa farm rehabilitation and renovation	14.1 Promote expansion of farmer savings	• # farmers in supply chain with a savings account	**1 800**	**0**	**770 farmers received their premium on their mobile money account**
		• # farmers participating in VSLA groups	**1 500**	**345**	**1 080**
	14.2 Offer financial products to farmers	• # farmers offered a financial product	**14 500**	**0**	**0**
15. Improve supply chain mapping, with 100% of cocoa sourcing traceable from farm to first purchase point. An action plan will be developed that maps out key principles, steps, and milestones to achieve this step, encompassing all national and international traders.	15.1 Conduct mapping to identify and collect cocoa farm boundaries polygon data	• # farms mapped within direct supply chain			**Already reported 1.1**
	15.2 Implement traceability system to farm level in 100% of supply chain by end-2019	• % cocoa supply traceable from individual farms to first purchase point	**100%**	**100%**	**100%**

Social Inclusion and Community Engagement

Commitment	Actions	Indicator	2022 Target	# through direct investment in: 2018	# through direct investment in: 2019
16. Full and effective information sharing, consultation, and informed participation of cocoa farmers and their communities who are affected by proposed land-use changes	16.1 Organize cocoa community consultations on the implementation of the Frameworks for Action	• # communities with consultation sessions	**min 100 communities**	**0**	**0**
17. Promote community-based management models for forest protection and restoration	17.1 Establish and/or support community-based natural resource management (CBNRM) programs for forest restoration/protection	• # cocoa communities with active forest restoration and protection program		**0**	**0**
		• # hectares under CBNRM		**0**	**0**
18. Development of action plans for forest protection and restoration, and sustainable agricultural intensification that are gender and youth sensitive	18.1 Develop forest protection & restoration and agriculture intensification action plans that are youth and gender sensitive	• # cocoa communities with gender-focused programs	**9 districts**		
		• # cocoa communities with youth-focused programs	**2 surveying groups in 4 communities as pilot**	**0**	**Agriprenuership at selection stage**

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