

2018/19

FOREVER CHOCOLATE PROGRESS

Creating impact through the power of data,
technology and scale

Sustainability is at the heart of our business. This is why in 2016 we launched Forever Chocolate, our plan to make sustainable chocolate the norm by 2025. By committing to have more than 500,000 cocoa farmers in our supply chain lifted out of poverty¹, eradicating child labor from our supply chain², becoming carbon and forest positive and by having 100% sustainable ingredients in all of our products, we will bring systemic change to the cocoa and chocolate value chain. Every year we report on the progress we are making against the Forever Chocolate targets.

Our third, most recent, progress report, covering fiscal year 2018/19 (ended August 31, 2019), shows that we are creating impact on the ground and leading change in the cocoa and chocolate value chain. We are focusing on big innovative projects which we know will create the tipping point to further a sustainable chocolate supply chain. For this we are using a combination of big data and technology as the backbone to scale our efforts. For example we are building a unique cocoa farmer database, we are providing tailor-made farm services, we are establishing traceability in our supply chain for all ingredients at risk of causing deforestation and we developed a highly innovative carbon foot print

methodology for cocoa. In combination with the insights from our pilot projects in cocoa origin countries of what constitutes a sustainable cocoa farm, we are identifying the cocoa farm of the future and are getting ready to roll these out at scale.

We are very proud that our efforts were acknowledged in July 2019, when Sustainalytics, one of the leading companies assessing companies' sustainability efforts, ranked Forever Chocolate the #1 sustainability strategy in the packaged foods industry out of 178 companies. Sustainalytics focuses on the management of environmental, social and governance risks in supply chains. Barry Callebaut is considered the leader among peers.

The power of data and technology
Through the combination of data and technology we are mapping the structural sustainability challenges in the chocolate supply chain. This then forms the basis for our solutions to make sustainable chocolate the norm.

Farm mapping, combined with farmer census inter-views, provides us with key insights into the geographical location, farm size, crops grown, as well as the household composition and income of thousands of cocoa farmers and their farms.

The data from 176,984 farms where we have conducted both

geographical mapping and census interviews describes the current situation of cocoa farmers, allowing us to offer more targeted advice on how to improve the productivity of cocoa farms via Farm Business Plans. These plans cover multiple years during which we offer advice on the best mix of planting cocoa seedlings, the use of fertilizers and diversifying income-generating activities and help farmers to access inputs and training on credit.

¹ Number of cocoa farmers lifted out of poverty measured against the World Bank's USD 1.90/day threshold for extreme poverty.

² According to the International Labour Organization, not all work done by children should be classified as child labor that is to be targeted for elimination. The term 'child labor' is often defined as work that deprives children of their childhood, their potential and their dignity, interferes with their schooling and is harmful to their physical and mental development. Activities such as carrying heavy loads or using chemicals are considered as 'unacceptable forms of child labor' because they are physically dangerous for children.

In addition, understanding where farms are geographically located allows us to assess if a farm is at risk of sourcing from a protected forest area. This is why farm mapping was an integral part of the Cocoa and Forests Initiative Frameworks for action, a multi-stakeholder platform to end deforestation caused by cocoa cultivation in Côte d'Ivoire and Ghana. As a result, we have mapped 47,182 cocoa farms in our direct supply chain within 25 kilometers of a protected forest area in Côte d'Ivoire and Ghana. This means that we have established traceability for the cocoa volumes coming from these mapped farms.

We also apply a similar data-driven approach for all other ingredients which we source besides cocoa, such as cane sugar, soy lecithin and palm oil. We are working within our own direct supply chain, as well as with suppliers and governments for our indirect supply chain, to introduce traceability as a matter of priority. Further, we have created a heat map to provide an overview of areas where the sourcing of agricultural raw materials poses a high risk of causing deforestation.

Our data insights also allow us to calculate our carbon footprint much more accurately. By combining farmer data with satellite data, we can calculate the carbon impact of land cleared for agriculture in those areas where the farms from which we are sourcing are located. This innovative methodology replaces average country data with farm-specific data.

Finally, the farmer census data also enables us to assess the risk of a farm being dependent on the use of child labor, by combining data such as the number of children in the household, access to quality education, and women's income earning potential.

Scaling the insights from our pilots

By combining our data insights and technology platforms with the outcomes of the pilot projects on sustainable cocoa farming we are imple-

menting, we can truly drive systemic change at scale. We are collaborating with Wageningen University in the Netherlands, the world's leading agricultural university, to capture and

«Our third, most recent, progress report, covering fiscal year 2018/19, shows that we are creating impact on the ground and leading change in the cocoa and chocolate value chain.»

assess the findings of these pilot projects. This will allow us to roll out the learnings at a larger scale, benefiting more cocoa farmers. Just under 50,000 cocoa farmers have access to our farm services and more than 16,000 farmers have access to a Farm Business Plan. We have distributed over 1.8 million cocoa seedlings and over 750,000 shade trees. These are substantial numbers that create tangible impact on the ground. We leverage the learnings from the pilots in Cocoa Horizons, our preferred vehicle to support the implementation of our sustainability activities because of its capability to drive impact. The premiums flowing into the Cocoa Horizons Foundation increased by +40% over the last fiscal year. This growth allows the program to reach more farmers and scale impact. At the same time, Cocoa Horizons allows our customers to offer products that support the creation of self-sustaining cocoa farming communities and thereby protect children and promote biodiversity.

Creating the movement

Forever Chocolate is a movement. We need the expertise from academia and NGOs, the resources from our customers and partners, and an enabling policy environment from governments in order to succeed in making sustainable chocolate the norm. To drive change, and to achieve systemic impact, we require all stakeholders to come on board. Our 2018/19 Forever Chocolate Progress report clearly shows what can be achieved through a data-driven approach, rolled out at scale, with the support and resources of all relevant stakeholders. Since Forever Chocolate is a movement, we welcome all feedback and offers for support.

Prospering Farmers

Lifting cocoa farmers out of poverty



Livestock diversification is one of the activities offered in our pilot projects.

Our goal

By 2025, more than 500,000 cocoa farmers in our supply chain will have been lifted out of poverty.

Our approach

In order for more than 500,000 cocoa farmers in our supply chain to have been lifted out of poverty, it is key that we have a proper understanding of the structural challenges facing cocoa farmers. Farm-specific support is more effective in lifting farmers out of poverty than a one-size-fits-all approach. That is why we kicked off the pilot projects in key cocoa-growing countries to further our understanding of country-specific sustainable cocoa farming models. Our pilot projects, which were launched in 2017/18, were developed to understand not just the effectiveness, but also the rate of adoption by farmers of fertilizers, productivity packages, farm rehabilitation programs, shade trees and crop and livestock diversification. Partnering with Wageningen University, the world's leading agricultural university, has provided us with initial insights into the effectiveness of our pilots.

We have now mapped the geographical location, as well as the size of 295,383 cocoa farms which are captured in our Katchilè database. We have conducted census interviews with 229,142 cocoa farmers (+75%), capturing socio-economic and household data. For 176,984 farms

we conducted both geographical mapping as well as census interviews. This unprecedented collection of farmer data has allowed us to individualize our Farm Business Plans. These are designed to enable farmers to develop their cocoa farms into rehabilitated, diverse and professionally run farms over a period of several years. The Plans offer specific advice on the best mix of seedlings and fertilizers and help farmers to access labor and inputs on credit. Over

«Our unprecedented collection of farmer data has allowed us to individualize our Farm Business Plans. Over 16,000 farmers have adopted Farm Business Plans.»

176,984

Farms with geographical mapping and farmer census

16,000 farmers have adopted Farm Business Plans. Furthermore in 2018/19 we distributed over 1.8 million cocoa seedlings and over 750,000 shade trees. We also distributed close to 13,500 productivity packages, which include training on tree pruning techniques and the use of fertilizer.

Finally, we leveraged the learnings from the pilots in Cocoa Horizons, our preferred vehicle to support the

implementation of our sustainability activities. Cocoa Horizons allows our customers to offer products that support the creation of self-sustaining cocoa farming communities. The premiums from the purchase of HORIZONS products generated CHF 15 million in funds (+40%). Through these premiums more than 135,000 farmers can take part in the program focusing on improving their productivity and income. These premiums also financed child labor sensitization programs, training 27,448 farmers in the Cocoa Horizons program on Child Labor.

Key Metric

184,623

Baseline measurement of the number of cocoa farmers in our supply chain out of poverty, measured against the World Bank's USD 1.90/day threshold for extreme poverty

Our measured impact

In 2018/19 49,909 (+303%) farmers in Côte d'Ivoire, Ghana, Cameroon, Brazil and Indonesia had access to farm services, including coaching as well as other inputs such as tools, seedlings and finance. A total of 420 hectares of cocoa were replanted. Progress here continues to be affected by the Ivorian government's decision in 2018 to put the distribution of cocoa seedlings, and the replacing of aging cocoa trees in that country, on hold. We did see an improvement in productivity per hectare for farmers with access to farm services, but we have not been able to demonstrate a causal link with our activities. This is foremost a methodological challenge which we hope to tackle in the coming fiscal year. Therefore we decided to refrain from reporting on this KPI for 2018/19. Measured against the World Bank's threshold of USD 1.90/day, we estimate that 184,623 cocoa farmers in our supply chain have been lifted out of poverty.

Enabling KPIs

49,909

Number of cocoa farmers who have access to coaching, inputs such as tools and seedlings, or finance

420

Number of hectares of cocoa replanted

Our commitment to the UN SDGs





ZERO CHILD
LABOR

Zero Child Labor

Eradicating child labor



Ellen Tawiah is a member of our Child Protection Committee, Gyadam District, Ghana.

Our goal

By 2025, we will eradicate child labor from our supply chain.

Our approach

Child labor continues to be present in cocoa farming, in particular in West Africa. This is the result of both poverty and a lack of access to social infrastructure. The lack of access to quality education, for example, impacts cocoa farmers' perspectives as to whether schooling will bring any benefits to their children. Lifting cocoa farmers out of poverty will be a game changer in the fight against child labor, but it will not be enough. Whilst continuing the roll-out of child labor monitoring and remediation systems, we are also increasing our efforts through community-based approaches, empowering cocoa-farming communities to take action against the worst forms of child labor and improve children's rights. Adult literacy classes, the distribution of water filters at schools, health programs and the establishment or strengthening of community institutions such as Community Action Plans, Child Protection Committees and Village Savings and Loan Associations are examples of our efforts. The latter, together with income-generating activities and agroforestry projects, are particularly relevant for the economic empowerment of female cocoa farmers.

To this effect, we include information on cocoa farmer households in the data we collect. This allows us to assess the number of children in a farmer's household and, by cross-referencing the data we have on the relevant cocoa farming community, we can assess the risk that the children on the farm will be engaged in the worst forms of child labor. The risk of a farm being dependent on the use of child labor is based on data such as the number of chil-

of farmer groups and communities covered by child labor monitoring and remediation systems. Our monitoring and remediation approach is based on the industry practice as developed by the International Cocoa Initiative (ICI). Remediation activities to sensitize farmers range from household visits to encouraging the schooling of children working on the farm. This includes the provision of school kits, birth certificates and remedial schooling, as well as influencing labor practices by providing, for example, wheelbarrows and instructions on the use of non-hazardous tools. In 2018/19 we trained 80,847 farmers on child labor awareness.

Further, in 2018/19 we initiated a pilot program to establish a child protection committee in Ghana. This is a unique partnership which brings together district and local-level government agencies, social welfare specialists and community planners. The aim of the committee is to create partnerships at district level with village representatives who will sensitize the community on child labor risks and engage in monitoring.

26%

Farmer groups we directly source from have systems in place to prevent, monitor and remediate child labor

dren in the household, access to quality education, and women's income earning potential. The census data we have collected from 229,142 farmers, allow us to target our child labor monitoring and remediation activities towards those communities at highest risk of engaging in the worst forms of child labor. This year, we significantly expanded the range

«The census data we have collected from 229,142 farmers, allow us to target our child labor monitoring and remediation activities towards those communities at highest risk.»

Our measured impact

We continue to implement our monitoring and remediation systems and now cover 42 farmer groups, including 16,710 farmers in Côte d'Ivoire and Ghana. This is a significant increase of +39% compared to the previous fiscal year. In total we established that in 2018/19, 26% of the farmer groups we directly sourced from have systems in place to prevent, monitor and remediate child labor, an increase of +116% compared to 2017/18. We found in the fiscal year under review 3,867 cases of child labor (-9%) which we are determined to remediate. Of the reported cases, 2,333 are in the process of being remediated¹.

Our zero child labor commitment extends beyond cocoa. This year 37% of the cocoa and non-cocoa volume sourced from third party suppliers from low risk segmentations is covered by equivalent child labor monitoring systems.

Our focus in the next fiscal year will be to encourage our suppliers to develop roadmaps and targets for sourcing raw materials that are covered by a risk management system that identifies and addresses child labor risks. We will focus specifically on those suppliers of raw materials who are exposed to a high child labor risk in their supply chains, such as cane sugar.

Key Metric

3,867

Number of child labor cases identified

2,333

Number of child labor cases in the process of being remediated

Enabling KPIs

26%

Farmer groups we directly source from have systems in place to prevent, monitor and remediate child labor

37%

Cocoa and non-cocoa volume sourced from third-party suppliers covered by equivalent child labor monitoring systems

Our commitment to the UN SDGs



¹https://cocoainitiative.org/wp-content/uploads/2017/05/ICI-CLMS-Effectiveness_15_May.pdf. Please refer to page 33 for an overview of remediation activities including i) individual remediation targeting the child ii) household remediation targeting the family of the identified child and iii) community level remediation.



THRIVING
NATURE

Thriving Nature

Becoming carbon and forest positive



Nurseries: we have so far distributed over 1.8 million young cocoa seedlings in Côte d'Ivoire and Ghana.

Our goal

By 2025 we will be carbon and forest positive.

Our approach

Climate change can have severe impacts on agricultural regions. Droughts mean farmers can no longer rely on crucial rainfall, while deforestation leads to soil degradation. If the chocolate industry does not commit to reducing its carbon footprint and achieve a deforestation free supply chain, the ecosystems that provide chocolate ingredients will erode.

Carbon positive

To become carbon positive by 2025, we need to understand exactly how much carbon we have to reduce or offset. This also enables us to pass on our achievements to our customers by supporting them to calculate how much carbon they can save by sourcing our cocoa and chocolate.

We are looking at the carbon footprint created by our own operations (scope 1), the carbon footprint generated by the energy we use (scope 2), as well as the carbon footprint of our entire supply chain (scope 3) which also includes the production and processing of all our sourced raw materials and related land use changes (LUC).

This is why in 2018/19 we continued the pioneering work with our partner Quantis to develop the first carbon footprint assessment for the

cocoa supply chain. It is only when we fully understand where our biggest impacts lie that we can prioritize our efforts. The big step forward in this assessment is the use of satellite data in combination with our farm data to calculate the carbon impact of land cleared for agriculture for individual cocoa farms. This innovative assessment replaces average country data with farm-specific data. This will allow us to assess the carbon footprint of cocoa in our supply chain much more

first company to develop a methodology to verify how much carbon emissions can be reduced and removed at farm level and in cocoa growing communities. We are formulating the guidelines for carbon insetting projects, such as tree planting, in scope 3 of cocoa supply chains.

An additional major contributor to our carbon footprint are our dairy ingredients. Therefore, we have been working with dairy suppliers to harmonize methodologies to measure carbon emissions on dairy farms and processing facilities. These activities allow us to better manage and account for carbon footprint reductions in the dairy supply chains.

This year also marked the launch of a pilot to test the viability of Biochar. This consists of the residue of cocoa shells which have been used to generate energy in our factories. In addition the use of Biochar supports the offsetting of our carbon footprint. We are investigating the possibility of extending the use of Biochar as a fertilizer to our Farm Services business, to improve soil quality and make cocoa production more carbon neutral. Further, Biochar can be used by dairy suppliers for cow feed production, to reduce methane production.

In 2018/19, 17 of our 62 factories are now fully powered by renewable energy. Our Kageröd factory in Sweden achieved carbon neutrality in 2019. Our efforts to reduce our

-6.7%

Reduction in
our carbon footprint

precisely and formulate effective strategies on how to reduce it. The aim is to make this assessment publicly available in early 2020 and we encourage the cocoa and chocolate industry to use this as the industry standard.

Another big step forward in becoming carbon positive is the work we are undertaking with our partner The Gold Standard Foundation. Through this collaboration we are the

carbon footprint have also been recognized by CDP, an independent organization which assesses the carbon reduction actions of industry every year. In 2018 we were awarded an A- for our activities to reduce our carbon footprint, putting us in the top 6% of the over 7,000 assessed companies.

Forest positive

In order to become deforestation free and forest positive by 2025, we are working within our own direct supply chain as well as with suppliers and governments across our indirect supply chain to introduce traceability as a matter of priority. Approximately half of our sourced ingredients by volume are cocoa products and half are non-cocoa products, such as sugar, dairy, and vegetable oils.

In order to become forest positive, we have to start by eliminating deforestation from our supply chain. In 2017 we signed the Cocoa and Forests Initiative (CFI), a multi-stakeholder initiative dedicated to ending cocoa farming induced deforestation in Ghana and Côte d'Ivoire. It includes a commitment to deliver traceability in our direct cocoa supply chains in these two countries. In line with this commitment, we have mapped 47,182 cocoa farms in our direct supply chain within 25 kilometers of a protected forest area in Côte d'Ivoire and Ghana.

We have so far distributed over 1.8 million young cocoa seedlings in Côte d'Ivoire and Ghana. Furthermore, we have distributed almost 750,000 shade trees for replanting in Côte d'Ivoire and Ghana.

Furthermore, we are not only eliminating deforestation from our supply chain, we are also committing to forest restoration. The ISLA project in Côte d'Ivoire helps to protect the forest reserve of Cavally, a forest of high biodiversity value. It aims to sensitize the local community on sustainable natural resource management. Together with the Dutch Sustainable Trade Initiative (IDH), Barry Callebaut has supported

several monitoring missions by the Wild Chimpanzee Foundation and the Ivorian national forestry agency SODEFOR in the area. These missions have helped to protect 6,280 hectares of primary forest and restore 3,800 hectares of forest by removing illegal cocoa and allowing natural forest regeneration. Furthermore, in order to prevent the infiltration of cocoa farms into Cavally, ISLA aims to make cocoa production outside of protected areas more sustainable and productive.

In the coming year, we will work with industry partners and cocoa origin governments to expand such

Value land, High Carbon Stock land (level 1 and 2), or any land identified by relevant stakeholders as important for conservation, nor from land defined as National Park, state or local reserve, or protected status, by national or sub-national governments.

Furthermore, we are also engaged in several multi-stakeholder initiatives such as the Palm Oil Innovation Group (POIG) or the Cerrado Manifesto to drive sustainable practices in areas at risk of deforestation. Through these types of initiatives we are continuously championing more ambitious industry standards for sustainable commodity sourcing.

«In 2018/19 we continued the pioneering work with our partner Quantis to develop the first carbon footprint assessment for the cocoa supply chain.»

initiatives to regenerate degraded forests, as well as explore exciting new technologies to promote reforestation.

In addition to cocoa, we source other ingredients from tropical agriculture for our chocolate, such as cane sugar, soy lecithin and palm oil. We have created a heat map to provide an overview of areas where the sourcing of agricultural raw materials can pose a high risk of causing deforestation. For those ingredients and geographies at risk of causing deforestation, we are working with our suppliers to establish traceability. For those volumes where traceability has already been established or provenance has been ensured through third parties, i.e. certification, we will not source ingredients from High Conservation

Key Metric

8.49

Million tonnes CO_{2e}

The carbon footprint of our supply chain from farm to customer and number of hectares of forest regenerated

3,800

Number of hectares of forest regenerated

Enabling KPIs

3.88

CO_{2e} intensity per tonne of product

37.6%

Sourced raw materials demonstrated not to be contributing to deforestation

Our commitment to the UN SDGs



Our measured impact

Due to our combined carbon reduction efforts, our corporate CO₂ equivalent (CO_{2e}) footprint decreased from 9.10 million tonnes to 8.49 million tonnes in fiscal year 2018/19. This represents a reduction of -6.7%, despite an increase in production. The main drivers of this achievement are the reduced CO_{2e} emissions from land use change, reduced CO_{2e} intensity in factories and the reduced CO_{2e} intensity in dairy products. The CO_{2e} intensity per tonne of product also decreased from 4.45 to 3.92, and with the additional contributions from scope 3 insetting projects, was further reduced to 3.88. This is a decrease of -12.8% compared to the previous fiscal year.

The percentage of sourced raw materials demonstrated not to be contributing to deforestation is 37.6%. Looking ahead, we will continue to utilize our heat map to identify where the sourcing of agricultural raw materials poses a high risk of causing deforestation. This valuable data will help us to work with suppliers to improve traceability and support our partnerships. Through our support of the ISLA project 3,800 hectares of forest were regenerated.



SUSTAINABLE
CHOCOLATE

Sustainable Chocolate

Sustainable Chocolate



At Barry Callebaut, we source a wide range of ingredients such as dairy, palm oil, coconut oil, cane sugar and nuts for inclusion in our chocolate products.

Our goal

By 2025, we will have 100% sustainable ingredients in all of our products.

Our approach

At Barry Callebaut we source a wide range of ingredients including dairy, palm oil, coconut oil, soy lecithin, vanilla, cane sugar, beet sugar and nuts for inclusion in our chocolate products. We recognize that each of these raw materials has its own complex supply chain that can also vary across different geographical regions. We are therefore working with our suppliers and certification and sustainability programs, to define and implement sustainability standards for each ingredient.

For the sustainable sourcing of raw materials, establishing common industry standards on sustainability is key. Barry Callebaut is at the forefront of the development of such standards for our priority ingredients. We have been a member of the Roundtable on Sustainable Palm Oil (RSPO) since 2011. We are also a member of the Palm Oil Innovation Group (POIG), in order to build upon the efforts of RSPO to further advance sustainable palm oil requirements. Working with Conservation International, we also undertook a palm oil risk assessment to identify and prioritize deforestation risks in our supply chains. As a part of our strategy to proactively promote sustainable ingredient production, we joined the Coalition for Sustainable

Livelihoods, led by Conservation International, to promote smallholders prosperity, eliminate deforestation, and promote forest restoration in Indonesia.

Our sustainable soy is sourced via ProTerra. In January 2019, we also became members of the newly formed ProTerra Stakeholder Council to drive further improvements in standards and governance. ProTerra is the industry leader in certified sustainable soy cultivation, which is mainly sourced from Brazil.

Dairy Sustainability Charter, the aim of which is to set a global benchmark for sustainable dairy production.

In 2018/19, we collected a first set of outcome measures from suppliers, and continued to expand VisionDairy by benchmarking it against some of our suppliers' sustainability programs in order to streamline data collection and reporting processes.

In 2017, we joined Bonsucro, whose mission is to ensure responsible cane sugar production that creates lasting value for the people, communities, economies and ecosystems in all cane-growing regions. In fiscal year 2018/19 we received the Bonsucro Chain of Custody certification ensuring that we are diligently applying the Bonsucro sustainability standards for the cane sugar products in our supply chain.

Barry Callebaut is a member of the crops working group at the SAI. We benchmark and monitor our beet sugar suppliers against the SAI Farm Sustainability Assessment and expect them to reach, at a minimum, silver level. For sustainable beet sugar production, pesticide and fertilizer levels are optimized, soil health is maintained, carbon sinks are protected and energy use is optimized. In fiscal year 2018/19 we worked with Russian beet sugar suppliers who have now all reached the silver level with their selected farmers and plants. Going forward, we aim to achieve this success with our suppliers in Turkey.

51%

agricultural raw materials
sustainably sourced

Dairy production is a major contributor to greenhouse gas emissions in our carbon footprint. Achieving sustainable dairy production is a big challenge, which is why we are a member of industry platforms such as the Sustainable Agriculture Initiative Platform (SAI) and part of the Dairy Working Group. In addition, in 2018, Barry Callebaut established the VisionDairy program to develop a

Key Metric

51%

Percentage of agricultural raw materials sustainably sourced

Enabling KPIs

47%

of sustainably sourced cocoa beans

54%

of sustainably sourced non-cocoa raw materials

Our commitment to the UN SDGs



«For the sustainable sourcing of raw materials, establishing common industry standards on sustainability is key.»

Our measured impact

51% of all the raw materials we source originate from sustainable sources. This is an increase of almost +16% compared to the previous fiscal year. In 2018/19 we increased our volume of sustainably sourced cocoa to 47%. In the coming fiscal year we will start to focus more efforts on further building the market pull for sustainably sourced cocoa. 54% of our non-cocoa ingredients are now coming from sustainable sources, an increase of almost +23% compared to 2017/18.