1. Management Statement

Making sustainable chocolate the norm by 2025, can only be achieved by embedding sustainability into the heart of our business strategy. In fiscal year 2018/19, Barry Callebaut has made great progress towards the targets set in 2016. Their quantified, time-bound objectives enable them to engrain their sustainability agenda across all our business functions. The progress data show how, through their sourcing, processing and sales, Barry Callebaut is driving change, supporting cocoa farming communities, reducing resource consumption in their factories and driving the uptake of sustainably sourced chocolate.

Barry Callebaut is confidently progressing towards systemic change in the chocolate value chain. There remains a lot to be done, but through assessing, learning and investing, the Company is confidently increasing the adoption of innovative approaches to drive impact, and make sustainable chocolate the norm by 2025.

This report presents a summary of the Forever Chocolate and GRI relevant activities and key performance indicators (KPIs) implemented during the year 2018/19 (based on Barry Callebaut's materiality assessment). It is based on the work performed by Barry Callebaut and its subsidiaries as well as partners Barry Callebaut collaborates with on implementing its activities. The reported KPIs are reviewed by PricewaterhouseCoopers LLP (PwC) at Barry Callebaut's offices, cocoa communities in the countries where Forever Chocolate activities are implemented as well as in Barry Callebaut sites.

This report, covering the financial year ended 31 August 2019, presents the results of a limited assurance level verification following the ISAE 3000 assurance standard, providing Barry Callebaut's stakeholders with an enhanced level of confidence in relation to progress towards the Forever Chocolate targets. The exact scope, nature and conclusion of assurance are highlighted in the Independent Assurance Report of PricewaterhouseCoopers LLP on pages 2 – 3.

Barry Callebaut selected and applied appropriate policies and processes in preparing the data in this report. The Company believes that the KPIs presented are complete and accurate. At the same time the Company believes that the assessment criteria is suitable for the purpose of measuring and evaluating the KPIs presented in the report.

The Management of Barry Callebaut is confident and shall be responsible for the information presented in this document being complete and accurate, and prepared in accordance with the Reporting Criteria in Appendix A to this document.

_____ Date_____4 November 2019

Antoine de Saint-Affrique
CEO, Barry Callebaut

_____ Date_____4 · Nov · 2019

Pablo Perversi
Chief Innovation, Sustainability & Quality Officer, Barry Callebaut

Independent Limited Assurance Report to the Directors of Barry Callebaut AG

The Board of Directors of Barry Callebaut AG engaged us to provide limited assurance on the information described below and set out in Barry Callebaut AG's Forever Chocolate Progress Report for the year ended 31 August 2019.

Our conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information for the year ended 31 August 2019 has not been prepared, in all material respects, in accordance with the Reporting Criteria.

This conclusion is to be read in the context of what we say in the remainder of our report.

Selected Information

The scope of our work was limited to assurance over the KPIs (the "Selected Information") presented alongside the Reporting Criteria in Appendix A.

Our assurance does not extend to information in respect of earlier periods or to any other information included in the Forever Chocolate Progress Report for the year ended 31 August 2019.

Professional standards applied and level of assurance

We performed a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' and, in respect of the greenhouse gas emissions, in accordance with International Standard on Assurance Engagements 3410 'Assurance engagements on greenhouse gas statements', issued by the International Auditing and Assurance Standards Board. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks.

Our Independence and Quality Control

We applied the Institute of Chartered Accountants in England and Wales (ICAEW) Code of Ethics, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We apply International Standard on Quality Control (UK) 1 and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our work was carried out by an independent team with experience in sustainability reporting and assurance.

Understanding reporting and measurement methodologies

The Selected Information needs to be read and understood together with the Reporting Criteria, which Barry Callebaut AG is solely responsible for selecting and applying. The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time. The Reporting Criteria used for the reporting of the Selected Information are as at 31 August 2019.

Work done

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information. In doing so, we:

- made enquires of Barry Callebaut AG's management in their offices in Switzerland, Côte d'Ivoire, Ghana, Cameroon and Brazil, and remotely for their offices in Indonesia;
- made enquiries of operational staff, Farmer Group management teams and cocoa farmers aligned with Barry Callebaut's sustainability program, including the Corporate Responsibility (CR) team and those with responsibility for CR management and group CR reporting;
- evaluated the design of the key structures, systems, processes and controls for managing, recording and reporting the Selected Information. This included analysing and visiting a number of Farmer Groups and Cocoa Farms in Côte d'Ivoire, Ghana, Cameroon and Brazil selected on the basis of their inherent risk and materiality to the group, to understand the key processes and controls for reporting site performance data to the local and group reporting teams;
- performed limited substantive testing on a selective basis of the Selected Information at the following locations to check that data had been appropriately measured, recorded, collated and reported:
    - Barry Callebaut AG head office in Zurich;
    - SACO head office in Côte d'Ivoire;
    - Nyonkopa head office in Ghana;
    - SIC head office in Cameroon;
    - Barry Callebaut head office in Brazil;
    - Farmer Groups in Côte d'Ivoire, Ghana, Cameroon and Brazil;
    - Cocoa Farms in Côte d'Ivoire, Ghana, Cameroon and Brazil; and
- considered the disclosure and presentation of the Selected Information.

Our testing procedures included but were not limited to:

- re-performing calculations performed by management based on central records;
- inspecting meeting minutes to support assertions made and actions performed by management;
- reconciling locally-maintained paper documents to central records;
- interviewing Farmer Group management and cocoa farmers;
- inspecting contractual documents and delivery documentation to support delivery of cocoa from farmers to Farmer Groups and to SACO, Nyonkopa, SIC and Barry Callebaut Brazil;
- inspecting training attendance records for farmers participating in training sessions;
- inspecting records of farmers participating in the Farm Business Plan, Productivity Package and Income Diversification Package;
- inspecting records held at the local farmer groups of farmers having received cocoa and shade trees seedlings;
- performing physical inspection of areas of farmland replanted and prepared for replantation;
- inspecting interview records and results with farmers regarding instances of child labour;
- inspecting records of identified child labour cases;
- inspecting interview records and results with farmers having received child labour remediation activities;
- inspecting evidence of farmers/children receiving child labour remediation activities;
- re-performing Child Labour Monitoring & Remediation System (CLMRS) and Census surveys on the Katchilé application alongside Barry Callebaut's enumerators;

[1] The maintenance and integrity of Barry Callebaut AG's website is the responsibility of the Directors; the work carried out by us does not involve consideration of these matters and, accordingly, we accept no responsibility for any changes that may have occurred to the reported Selected Information or Reporting Criteria when presented on Barry Callebaut AG's website.

- inspecting census survey results for Côte d'Ivoire, Ghana and Cameroon to support farmer income, farm size and cocoa yield declaration;
- re-performing the poverty KPI calculation and performing a reasonableness test on the assumptions used by management to ensure that these are appropriate;
- performing inquiry with third party, Denkstatt, to understand Barry Callebaut AG's carbon footprint model and inspecting source data to agree to a sample of key inputs;
- considering the reasonableness of assumptions used by management for the carbon footprint model;
- performing a walkthrough of the GPS mapping exercise in Côte d'Ivoire, Ghana and Cameroon;
- inspecting source data to agree to a sample of farms mapped and calculated distance from protected areas; and
- re-performing the calculation for the KPI addressing deforestation and performing a reasonableness test on areas mapped as 'protected' and cross referencing to third party evidence; and
- inspecting invoices and contracts to support the reported level of sustainable cocoa and non-cocoa ingredients.

Barry Callebaut AG's responsibilities

As explained in the Management Statement, as found in Section 1 of the Forever Chocolate Progress Report, the Directors of Barry Callebaut AG are responsible for:

- designing, implementing and maintaining internal controls over information relevant to the preparation of the Selected Information that is free from material misstatement, whether due to fraud or error;
- establishing objective Reporting Criteria for preparing the Selected Information;
- measuring and reporting the Selected Information based on the Reporting Criteria; and
- the content of the Forever Chocolate Progress Report.

Our responsibilities

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the Selected Information is free from material misstatement, whether due to fraud or error;
- forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- reporting our conclusion to the Directors of Barry Callebaut AG.

This report, including our conclusions, has been prepared solely for the Board of Directors of Barry Callebaut AG in accordance with the agreement between us, to assist the Directors in reporting Barry Callebaut AG's Selected Information. We permit this report to be published on Barry Callebaut AG's website, subject to an access controlled click through disclaimer, in relation to the Forever Chocolate Progress Report for the year ended 31 August 2019, to assist the Directors in responding to their governance responsibilities by obtaining an independent assurance report in connection with the Selected Information. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Board of Directors and Barry Callebaut AG for our work or this report except where terms are expressly agreed between us in writing.

PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
Chartered Accountants
Leeds
4th November 2019

Appendix A – Forever Chocolate Reporting Criteria

This section summarises the basis of preparation for the performance indicators within this report, presenting clarification and definition of the terminology used within the reported performance indicators.

A set of general definitions is first presented, as well as specific guidance in relation to each of the reported performance indicators, by section of the report.

General definitions

A **Farmer Group** is defined as an organised group of farmers such as a cooperative or similar. See definitions for each specific country:

- **Côte d'Ivoire**: These are partnered agricultural cooperatives and Barry Callebaut owned direct sourcing company, SACO
- **Cameroon**: These are partnered agricultural cooperatives and Barry Callebaut owned direct sourcing company, SIC CACAO
- **Ghana**: These are districts/branches that form part of Barry Callebaut's direct sourcing licensed buying company in Ghana, Nyonkopa Ltd
- **Indonesia**: These are Barry Callebaut's suppliers in Indonesia
- **Brazil**: There are no Farmer Groups in Brazil. Farmers work individually and sell their cocoa to Buying Stations, which might be independent or part of Barry Callebaut.

FC #	KPI	Assessment Criteria
FC 1.1	3,867 child labor cases identified in our supply chain	This indicator relates to the number of instances of child labor identified as part of the Child Labor Monitoring Remediation System ("CLMRS") interviews in the year ended 31 August 2019. In alignment with the International Labour Organization (ILO), child labor is defined as work that deprives children of their childhood, their potential and their dignity, interferes with their schooling and is harmful to physical and mental development. The CLMRS is a system consisting of a database supported by data collection and survey applications for use on tablets and mobile phones. This indicator explores the use of the data collection and survey functionality of the CLMRS with members of Farmer Groups in the year ended 31 August 2019. In using this functionality, farmers and members of their households were surveyed regarding the number of children aged between 5 and 17 residing in the household. Where such children were identified, they were individually surveyed regarding their role on the farm, and observation visits were subsequently performed at related farms. As part of these interviews with children and observations regarding their role on the farm, a number of children were identified as performing tasks considered to be dangerous. Such instances have been recorded within the "child labor cases identified". In Ghana, the definitions of "child labor cases identified" in this indicator have been taken from the ILO. The different categories of child labor as described by ILO can be inferred below: ● 'Heavy child labor': These are tasks considered to be dangerous, such as the handling of heavy equipment or use of farming chemicals. These are classed as a "child labor case identified" for children of all ages. ●'Light child labor': These are tasks which are less dangerous but can still be hazardous, such as weeding with a machete or removing beans from cocoa pods broken by adults. These are classed as a "child labor case identified" for all children under the age of 13 years old, and for children of ages from 13 to 17 years old depending on the number of hours they have been performing these tasks per week and day, which further depends on if it was a school day or not. For example: ● A 12 year old child that helps his parents during the harvest, such as sorting and picking beans (which is considered as a light task), is considered hazardous child labor as the child is younger than 13 years of age. ● A 14 year old child that helps his parents with the same task (sorting and picking beans), for less than 2 hours on a school

		day, less than 4 hours on a non-school day, and less than 14 hours in total in the week, is not considered as hazardous child labor. • For a 14 year old performing the same tasks, but doing this for more than 2 hours during a school day, more than 4 hours during a non-school day, or more than 14 hours in total in the week, this is considered hazardous child labor. In Côte d'Ivoire, the definition of "child labor cases identified" in this indicator is in line with the Child Labor Law passed by the Ivorian Minister of Employment and Social Protection. The Labor Law only considers dangerous work (i.e. 'heavy child labor') performed by children to be a child labor case, such as (but not limited to): • use of farming chemicals • handling of sharp objects and heavy equipment • tree logging • handling of firewood • wood cutting Origins in scope: Côte d'Ivoire, Ghana
FC 1.1.1.1	2,333 child labor cases in process of being remediated	This KPI relates to the number of child labor cases identified as per the definition of the KPI FC 1.1, which have received at least one remediation activity*. The remediation activities can be in the form of direct intervention provided to the child or child's family, or intervention provided to the child's community. This is evidenced by either signed documentation from the child's parents that the remediation activity has been received or signed confirmation from the head of the community that a community intervention has been provided. The cases in this KPI are thus still in this process and NOT yet considered to have been successfully and completely remediated. In Côte d'Ivoire, remediation activities are underway but the resurveying process is not complete. *Remediation activities include, but are not limited to, the distribution of shovels, wheelbarrows, school kits, provisioning of birth certificates and writing classes, in line with the ICI definition. Origins in scope: Côte d'Ivoire In Ghana, no remediation activities have yet taken place.
FC 1.1.2	42 Farmer Groups covered by child labor monitoring and remediation activities	This indicator refers to the number of Farmer Groups covered by child labor monitoring and remediation activities implemented by Barry Callebaut, as described in KPI FC 1.1 and FC 1.1.1.1. Note that in Ghana there are no remediation activities in place and therefore this KPI focuses on the monitoring aspect in Ghanaian context. Origins in scope: Côte d'Ivoire, Ghana
FC 1.1.3	16,710 farmers covered by child labor monitoring and remediation activities	This indicator refers to the number of cocoa farmer households which participated in survey interviews, in the year ended 31 August 2019, as part of the household surveys covered by child labor monitoring and remediation activities. This indicator was calculated using the data collected from Farmer Groups which are part of Barry Callebaut's CLMRS program. Note that in Ghana there are no remediation activities in place and therefore this KPI focuses on the monitoring aspect in Ghanaian context. Origins in scope: Côte d'Ivoire, Ghana
FC 1.2	26% of the Farmer Groups we directly source from have systems in place to prevent, monitor and remediate child labor	This indicator relates to the proportion of Farmer Groups, from which Barry Callebaut directly source, that have systems in place (in at least one community [for Côte d'Ivoire] or one society [for Ghana] of a Farmer Group) to prevent, monitor or remediate child labor. This includes Farmer Groups which are part of Barry Callebaut's CLMRS program as well as Farmer Groups which are not part of CLMRS but have

		been surveyed by Barry Callebaut's external surveyors to verify if they have systems in place to prevent, monitor and remediate child labor. 'System' is defined as Child Protection Committee (CPC) or Child Labor Monitoring and Reporting System (CLMRS). The applicable definition of a robust and functioning system is in accordance with the CocoaAction methodology developed by the World Cocoa Foundation: Child Protection Committee (CPC) ● CPC exists ● CPC meetings are regular ● Minimum of one CPC meeting in the reporting year 2018/19 ● Members of CPC are trained on child protection, child labor case management, child labor monitoring and remediation Child Labor Monitoring and Remediation System (CLMRS) ● CLMRS exists ● Data is collected and children are surveyed about their involvement in light and hazardous work ● Individuals responsible for CLMRS are trained on child protection, child labor case management, child labor monitoring and remediation ● Equipment for individuals responsible for CLMRS is available (e.g. awareness raising material) Barry Callebaut collects information on the existence of CPC and CLMRS on a Farmer Group level through a declaratory survey tailored for leaders of Farmer Groups or sections of Farmer Groups. Origins in scope: Côte d'Ivoire, Ghana
FC 1.3	37% cocoa and non-cocoa volume sourced from third-party suppliers covered by equivalent child labor monitoring systems in place	A “third party supplier” is a supplier of an ingredient which is needed for making chocolate with whom Barry Callebaut does not work in the direct sourcing business. The ingredients assessed include cocoa, sugar (beet and cane), dairy, flavours, fats and similar. An equivalent system is defined as a system which can effectively prevent instances of child labor and if such instances occur, has the capability to record them and remediate them. % volumes sourced from third party cocoa and non-cocoa ingredients suppliers is defined as the total volumes sourced from the suppliers that have equivalent systems in place divided by the total volumes for cocoa and non-cocoa ingredients sourced. In the fiscal year 2018/19, only low risk volumes are applicable for this calculation. The KPI calculation therefore only considers low risk volumes purchased from suppliers who have a suitable sustainability certification that addresses child labor (see applicable list below). To effectively assess this KPI, Barry Callebaut created a child labor ingredient and country specific risk assessment, based on a third-party risk assessment tool, Maplecroft. Where Maplecroft does not provide country specific risk assessment, other sources of information are used (e.g. US Department of Labor). Barry Callebaut determines that a Maplecroft rating of 5 or above is considered low risk and a rating of below 5 is considered high risk. For low risk countries, Barry Callebaut assumes that the country’s legal and enforcement system is effectively utilised by suppliers. Barry Callebaut uses selected sustainability certifications or standards as a proxy for this validation. The selected standards are as follows: Cocoa: UTZ / Rainforest Alliance or a combination of those with other certifications and standards Cane sugar: Bonsucro Beet sugar: SAI Dairy: VisionDairy (Unilever SAC) Palm oil: RSPO Rapeseed and sunflower oil: SAI Soy oil: SAI, Proterra

FC 2.1	184,623 cocoa farmers out of poverty, measured against the WB USD 1.90/day threshold for extreme poverty	This indicator has been determined by: ● obtaining survey information from farmers in Côte d'Ivoire, Ghana, Cameroon and Indonesia regarding their household income generation from cocoa and other activities, as well as the size of their household; ● using in-country market prices for cocoa and other crops to determine an average income level for those farmers; and ● comparing this average income level to the US$1.90 per day worldwide extreme poverty threshold set by the World Bank, adjusted for purchasing power and cost of living in Ghana, Côte d'Ivoire, Cameroon and Indonesia. More information on each of these bullet points is provided below. <u>Survey information</u> Census surveys were undertaken with farmer households in Côte d'Ivoire, Ghana, Cameroon and Indonesia during the financial year ended 31 August 2019. The results from the surveys were then sense checked against literature studies from an independent center of expertise and education for sustainable development, KIT Royal Tropical Institute. The census surveys and KIT study provided estimates over the following key metrics: ● the average yield per farm ● income from cocoa farming ● other income-generating activities ● cocoa farm size ● production cost Outliers from the census results have been removed and in some instances, the census results have been calibrated to match literature studies, in order to provide a more prudent analysis of the results. The assumptions and data calibration were performed by Barry Callebaut and are summarised below: ● Census surveys where the farmers have declared 0 for cocoa yield and other income have been discarded. ● Census surveys where the farmers have declared more than 30 (40 in Cameroon) household members have been discarded. ● Census surveys where the farmers have declared more than 50 (in Côte d'Ivoire), 40 (in Cameroon), 30 (in Ghana) and 20 (in Indonesia) financial dependents have been discarded. ● The cocoa farm size declared by the farmers were replaced with the GPS farm size captured on Katchile if all plots of their farms have been GPS mapped. ● If a farmer has declared more than 100 tonnes of either rubber or palm oil, it was deemed unrealistic and further assumed to be in kg. ● If the cocoa weight declared by the farmers has an implied yield of more than 1,100 kg/ha (in Côte d'Ivoire), 1,400 kg/ha (in Ghana and Indonesia), or 32 bags of cocoa per hectare (in Cameroon), these were deemed to be a significant deviation from the KIT study and excluded from the analysis. ● In Ghana, the declared farm size (hectares) was adjusted by a factor of 1.35 to match the KIT study. ● In Côte d'Ivoire, farmers claiming to have non-cocoa agricultural income above 5 Million CFA have been removed from the census. ● In Côte d'Ivoire, the cocoa income declared by the farmer was deducted by the average production cost inferred from KIT studies. The average production cost was repartitioned such that a farmer having declared a higher cocoa yield would incur a higher production cost. <u>Market prices</u> Barry Callebaut relies on its knowledge of origin markets to determine prices of cocoa and other crops. <u>Worldwide extreme poverty threshold</u> The US$1.90 per day worldwide extreme poverty threshold set by the World Bank has been used to determine the number of farmers out of poverty. The US$1.90 poverty line has been adjusted for each country to reflect the purchasing power and cost of living in Côte d'Ivoire, Ghana, Cameroon and Indonesia. This has been taken from the World Bank database. Origins in scope: Côte d'Ivoire, Ghana, Cameroon, Indonesia

FC 2.1.1	229,142 farmers who completed a census interview.	This indicator relates to the number of farmers, up until the year ended 31 August 2019, who took part in a census interview performed either by a member of Barry Callebaut staff or by external consultants appointed by Barry Callebaut. The census includes questions regarding, amongst other things: ● Information about the farmers themselves (such as date of birth, preferred language, education level); ● Information about the farmer's family; ● Information about the facilities at home; ● Information about the farm, farming and agriculture; and ● Information about sources of income (including cocoa, non-cocoa agricultural and non-agricultural income). Origins in scope: Côte d'Ivoire, Ghana, Cameroon, Indonesia, Brazil
FC 2.1.2	176,984 farmers with a Census and a Map	This indicator relates to the number of farmers, up until the year ended 31 August 2019, who had: ● completed at least one census interview; and ● at least one of their farm(s) mapped via GPS. More information surrounding both census interviews and mapping of farms is in the criteria for KPI FC 2.1.1 and FC 3.4.1 respectively. Our census activities started in the following origins in the following years: Côte d'Ivoire - 2016 Ghana - 2017 Cameroon - 2018 (paper only) Indonesia - 2017 Brazil - 2019 Our mapping activities started in the following origins in the following year: Côte d'Ivoire - 2018 Ghana - 2018 Cameroon - 2018 Indonesia - 2018 Brazil - 2019 Origins in scope: Côte d'Ivoire, Ghana, Cameroon, Indonesia, Brazil
FC 2.2	49,909 cocoa farmers who have access to farm services (coaching, input such as tools and seedlings, or finance)	This indicator relates to the number of farmers who, in the year ended 31 August 2019, had at least one of the following: ● signed a contract to participate in and gain access to the Productivity Packages, as defined in FC 2.2.6 (excluding Ghana); ● signed a contract to participate in and gain access to the Replanting Package, as defined in FC 2.2.7; ● received cocoa seedlings (excluding Côte d'Ivoire); ● received shade trees; ● received tools such a pruners; ● received assistance in the form of finance or access to finance; ● received a calculated Farm Business Plan, as defined in FC 2.2.5; or ● signed a contract to participate in and gain access to Income Diversification activities, as defined in FC 2.2.8. Origins in scope: Côte d'Ivoire, Ghana, Cameroon, Indonesia, Brazil
FC 2.2.1	5,890 farmers receiving cocoa seedlings	This indicator relates to the number of farmers who have received at least one cocoa seedling during the year through community nurseries or through participation in the Replanting Package during the year ended 31 August 2019. In Côte d'Ivoire, no seedlings have been distributed to farmers as the government of Côte d'Ivoire has banned the distribution of new cocoa seedlings since May 2018. Origins in scope: Ghana, Indonesia, Brazil
FC 2.2.2	1,813,075 cocoa seedlings distributed	This indicator relates to the number of cocoa seedlings distributed to farmers through community nurseries or through the Replanting Package during the year ended 31 August 2019.

		In Côte d'Ivoire, no seedlings have been distributed to farmers as the government of Côte d'Ivoire has banned the distribution of new cocoa seedlings since May 2018. Origins in scope: Ghana, Indonesia, Brazil
FC 2.2.3	31,842 farmers receiving shade trees	This indicator relates to the number of farmers who have received at least one shade tree seedling (i.e. those trees planted to provide sufficient shade to aid the growth and productivity of cocoa plants) through community distribution during the year ended 31 August 2019. Origins in scope: Côte d'Ivoire, Ghana
FC 2.2.4	752,982 shade trees distributed	This indicator relates to the number of shade tree seedlings distributed to farmers through community distribution during the year ended 31 August 2019. Origins in scope: Côte d'Ivoire, Ghana
FC 2.2.5	16,272 farmers who have access to Farm Business Plan	This indicator relates to the number of farmers for whom a Farm Business Plan was calculated, offered and accepted or signed during the year ending 31 August 2019. The form of a Farm Business Plan is either through a paper trail or via a digital Farm Business Plan application which was developed by Barry Callebaut. Origins in scope: Côte d'Ivoire, Ghana, Cameroon, Indonesia, Brazil
FC 2.2.6	6,604 farmers who have access to Productivity package	This indicator represents the number of farmers who have signed up to a Productivity Package during the year ended 31 August 2019. In Côte d'Ivoire, the Productivity Package refers to a package tailored for each farmer to aid in the productivity of their farm, depending on farm size and needs. The Productivity Package for each individual farmer is defined in the credit contract. The minimum package includes: ● saws and pruning shears; ● 5 individualised coaching visits (training) throughout the season; and ● application of one, or a combination of, insecticides, pesticides, fertilizers and fungicides. In Cameroon, the Productivity Package refers to a package tailored for each farmer to aid in the productivity of their farm, depending on farm size and needs. The Productivity Package for each individual farmer is defined in the credit contract. The package can include any of the following: ● cocoa packages which includes fertiliser, fungicides, insecticides, and pruning tools ● solar packages which includes lamps, power banks, and lighting equipment ● vegetable packages Origins in scope: Côte d'Ivoire, Cameroon
FC 2.6.6.1	6,870 productivity packages distributed to Purchasing Clerks	This indicator represents the number of Productivity Packages distributed to Purchasing Clerks in Ghana during the year ended 31 August 2019 for further distribution to farmers. In Ghana, the Productivity Package for the year ended 31 August 2019 includes application of one, or a combination of, insecticides, fungicides, and/or distribution of a pole pruner. Origins in scope: Ghana

FC 2.2.7	304 farmers who have access to Replanting and Underplanting Package	This indicator relates to the number of farmers who have signed a contract to participate in the Replanting Package during the year ended 31 August 2019. As part of the Replanting Package, farmers are provided with credit to finance the replantation of their farm. The credit is for a period of 5 years and covers at least one of the following: ● Planting equipment ● Lining and land clearing ● Cocoa seedling distribution ● Shade trees seedling distribution ● Coaching and training Origins in scope: Ghana, Indonesia
FC 2.2.8	409 farmers who have access to income diversification activities	This indicator represents the number of farmers who have signed a contract to participate in a non-cocoa package or activity during the year ended 31 August 2019. In Ghana, this refers to receiving support with one of the following: ● growing of vegetables ● keeping poultry In Cameroon, this refers to receiving support with one of the following: ● growing of vegetables ● electricity generation Origins in scope: Ghana, Cameroon
FC 2.3	420 ha replanted with cocoa and other species	This indicator measures the number of hectares owned by cocoa farmers who have signed up for the Replanting Package and received cocoa seedlings and shade tree seedlings as a result. The hectares replanted includes both 'underplanting' and fully replanted plots. Full replanting refers to the removal of old cocoa trees and their replacement with young cocoa seedlings. Furthermore, a number of shade trees are planted alongside the young cocoa seedlings. 'Underplanting' refers to the planting of young cocoa seedlings alongside old cocoa trees, which are removed only after the new cocoa trees start to bear fruit. The number of seedlings distributed varies based on individual plots and farmer needs. Origins in scope: Ghana (underplanting), Indonesia (replanting)
FC 2.4	0% productivity improvement per hectare of the farmers who have access to farm services	Barry Callebaut implements a Farmer Field Book approach (FFB) in Côte d'Ivoire in partnership with IDH the Sustainable Trade Initiative, UTZ Certified, and Agri-Logic. The methodology uses records from daily farming activities, investments and returns of farmers who implement Productivity Package. The increase in productivity is measured against a control group of farmers without a Productivity Package. Origins in scope: Côte d'Ivoire
FC 2.5.2	106,151 farmers trained on Good Agricultural Practice	This indicator represents the number of farmers who have attended at least one training session on Good Agricultural Practice (GAP). For Côte d'Ivoire there are specific GAP modules which are taught to farmers as follows: ● Harvest and post-harvest management; ● Pests & diseases (IPM); ● Pruning and soil health and fertility; or ● Cropping calendar In Ghana, a farmer is considered to have been trained in GAP if they have attended at least one of the three relevant modules: ● Cropping calendar; ● Pruning; or

		• Integrated pest management. In Cameroon, a farmer is considered to have been trained in GAP if they have attended at least one of the six relevant modules: • Good agricultural practice • Integrated management of soil fertility; • Yield estimation and post harvest • Economic management of the cocoa farm • Code of conduct and certification requirement; or • Integrated pest management. In Indonesia, a farmer is considered to have been trained on GAP if they have attended at least one of the five relevant modules: • Pruning; • Sanitation & fertilizer; • Integrated pest management; • Yield estimation & post-harvest; or • Farm rehabilitation. Origins in scope: Côte d'Ivoire, Ghana, Cameroon, Indonesia
FC 2.5.3	131,471 farmers trained on environmental protection	This indicator represents the number of farmers who have attended at least one training session which includes the topic of environmental protection in cocoa farming communities. Origins in scope: Côte d'Ivoire, Ghana, Cameroon, Indonesia
FC 2.5.4	80,847 of farmers trained on child labor	This indicator represents the number of farmers who have attended at least one training session which includes the topic of child labor in cocoa farming communities. Origins in scope: Côte d'Ivoire, Ghana, Cameroon, Indonesia
FC 2.5.5	31,469 farmers who were trained on gender and social issues	This indicator represents the number of farmers who have attended at least one training session which includes the topic of gender and social issues in cocoa farming communities. Note that training has been performed on gender and social issues in Ghana. However, due to the uncertainty of data accuracy it has not been possible to include this figure. Origins in scope: Côte d'Ivoire, Cameroon, Indonesia
FC 3.1	8.49 million tonnes CO2e - the carbon footprint of our supply chain from farm to customer	An organisational carbon footprint is defined as the total emissions caused by all activities of Barry Callebaut. The company uses a tailored tool developed together with experts from Denkstatt GmbH, which includes calculation for Scope 1 - 3 emissions in line with the GHG Protocol. We are looking at the carbon footprint created by our own operations, called 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 the raw materials we source and their related land use changes (LUC). Barry Callebaut measures its CO2e footprint along the entire supply chain. The areas include: 1. Cocoa farming and production 2. Non-cocoa ingredients production 3. Transport of ingredients, products, and employee flights 4. Operation of cocoa factories, chocolate factories, and specialty factories 5. Packaging and offices <u>1. Cocoa farming and production</u> Carbon footprint from cocoa farming and production includes the following areas: Direct land use change (LUC), indirect LUC and cocoa farming. These areas cover the following steps in calculation and Barry Callebaut relies on the following data sources: *Direct LUC* The calculation of direct LUC consists of the quantification of total net carbon loss on cocoa land, the allocation of net carbon loss to cocoa and

		other crops, and the depreciation of cocoa specific carbon loss over year 5 to 50 (there are no cocoa crops in year 1-4). Where source data is unavailable, academic literature and the Global Forest Watch data is used. The LUC emission factors for direct and indirect cocoa sourcing in Côte d'Ivoire, Ghana, Cameroon, and Indonesia have been obtained from Quantis, a third party consultant. For other origins an assumed carbon emissions factor of 3.66 kg CO2e / kg cocoa is applied for cocoa farming LUC and deemed reasonable based on sensitivity analyses performed. *Indirect LUC* Carbon emissions from indirect LUC refer to cocoa farms established on other cropland if the substituted crops are not contracting globally (i.e. stable or increasing production volumes). Cocoa farming: The activities related to cocoa farming, production and the usage of fertilizers constitute the relevant carbon footprint. The highest uncertainty is related to the share of farms in a given country which have: A. trees younger than 21 years (and have up to 17 productive years); and B. have been established on natural (forest) land. Barry Callebaut assumes 16 productive cocoa years within the 20-year lifetime of a cocoa tree. The final numbers for the sourcing categories in the different origins are given below and can be used as an emission factor in carbon accounting. <u>2. Non-cocoa ingredients production</u> Barry Callebaut considers the following ingredient groups in its carbon footprint model: dairy, sugar (beet and cane), oils and fats, sweeteners, nuts, additives, specialties, emulsifiers, flavors and others. Carbon footprint impacts of ingredients are always calculated by multiplying volumes of specific materials with suitable GHG emission factors. For relevant dairy, sugar, oils and fats, and emulsifiers ingredients, the model differentiates between countries of origin, or between specific suppliers, or between conventional, organic, and volumes which are sustainably certified. LUC impacts are considered for dairy, sugar, oil and emulsifier ingredients where relevant. Where specific conversion factors are available, they are used, but in their absence the emission factors are extrapolated from factors for other ingredients in the same subgroup. Sources for emissions factors are the World Food LCA Database (WFLDB) for dairy, sugar, and oils and fats, and Ecoinvent version 3.4 for the rest of the ingredients. <u>3. Transport</u> For transporting cocoa and chocolate, Barry Callebaut has developed a refined tool for calculating the carbon footprint of cocoa and chocolate transportation. It combines specific data on distances, transported volumes, transport modes (ship, truck type, liquid / solid, standard / solid cooled), and payload utilisation of trucks, with GHG emission factors which are calculated for each specific transport situation. Furthermore, the Company uses a “transport coefficient model”, which allows the calculation of GHG emission factors for each specific truck transport situation, linked to truck size, actual payload utilisation, and share of empty trips. Emission factors are calculated for standard, heated and cooled trucks. The transport coefficient model also lists GHG emission factors for train transports and ship transports. Emission factors from Ecoinvent version 3.4 are used for the calculation.

		For transportation of cocoa beans and non-cocoa ingredients, Barry Callebaut uses annual sourced volumes, and for cocoa beans also refers to the mix of origin countries. 4. Operation of cocoa factories, chocolate factories and specialty factories Carbon footprint represents the energy consumption of factories for cocoa processing, chocolate production and specialty production). Supplier-specific electricity mixes are considered where available; otherwise country mix is applied for all factories. Energy elements considered for the carbon footprint calculation are collected on a factory level and include electricity (non-renewable and renewable sources), fuel, gas, steam, heat and water. Barry Callebaut uses a list of standard CO2e factors for energy use in all factories. The reference databases are Ecoinvent version 3.4 and IEA 2017 (International Energy Agency). 5. Packaging and offices Packaging and offices make up the residual balance of Barry Callebaut's CO2e footprint. *Packaging* The volume of packaging is obtained from sourced data and multiplied by the Global Warming Potential (GWP) obtained from Ecoinvent version 3.2. *Offices* The office CO2e footprint consists of domestic and international flights, and office electricity and gas use based on office areas in Zurich, Chicago and Singapore. The relevant GWP is obtained from Ecoinvent version 3.2. Re-baselining Barry Callebaut re-baseline figures if there is a material change in the methodology applied within the model, or if updates to the emissions factors have a material impact on the results.
FC 3.3	3.92 CO2e intensity per tonne of product	This indicator is referring to the total carbon footprint reported above, divided by the total volume of cocoa and chocolate products sold to third parties in FY 2018/19. Note that this intensity result is before factoring in the scope 3 emission reductions which have been Gold Standard certified by SustainCERT, a third party certification body. The Certification documentation can be found on the Gold Standard Impact Registry.
FC 3.3.1	Factories using only renewable electricity sources increased by 3 to 17 in 2018/19	A factory is considered to be using renewable electricity sources if more than 99% of electricity used at the factory comes from renewable sources (e.g. hydroelectric) as at the year ended 31 August 2019. Barry Callebaut acknowledges a residual risk of electricity consumption coming from conventional sources from the energy suppliers.
FC 3.4	37.6% sourced raw materials demonstrated not to be contributing to deforestation	'Raw material' refers to any material used for chocolate production (e.g. cocoa, sugar, dairy, vanilla, hazelnuts). All volumes represent actual sourced volumes for chocolate production in the year ended 31 August 2019. 'Not contributing to deforestation' refers to cocoa and non-cocoa volumes that have been sourced from low-risk countries as defined by Maplecroft, and cocoa volumes that have been sourced from high-risk countries where additional measures were put in place to assure that the cocoa does not originate from a 'Protected Forest' (as defined by the host government). For cocoa, Barry Callebaut identifies the location and area of these 'Protected Forests' by using data from a variety of sources, including the Cocoa Forest Initiative (CFI) and the local government ministries. Barry Callebaut has identified cocoa bean production sites via GPS mapping (farm polygons). For non-cocoa raw materials only low risk volumes were considered for the calculation in the year ended 31 August 2019.

		This indicator is calculated as the raw materials deemed to be free from deforestation based on the criteria above divided by the total volume of all raw materials sourced. Risk profiles of ingredients are obtained from the 'Maplecroft Index', where Barry Callebaut have deemed that a score of 5 or higher is low risk and a score below 5 is high risk. The following assumptions have been made for the year ended 31 August 2019: • More than 99% of cocoa sourced is considered to be from a 'high risk' country according to the 'Maplecroft Index'. Where the country-specific information is not available on Maplecroft, it is automatically determined to be 'high risk' by Barry Callebaut. • For non-cocoa raw materials, the risk rating is assumed based on the country of origin, or on the country of the supplier for specific commodities where appropriate, such as dairy. Where country-specific information is not available, Barry Callebaut applies risk ratings from a representative proxy country.
FC 3.4.1	295,383 farms with a GPS map.	This indicator relates to the number of farm plots, utilised by farmers who have sold their cocoa to Barry Callebaut (both directly and indirectly), which have been mapped up until the year ended 31 August 2019. Mapping is performed by Barry Callebaut staff, or by external consultants appointed by Barry Callebaut, using a GPS tracker and the data is uploaded to Barry Callebaut's cloud-based solution, Katchilé. Note that this KPI refers to the number of farm plots mapped, therefore where a farmer has three farms mapped, it is reported as three. Origins in scope: Côte d'Ivoire, Ghana, Cameroon, Indonesia, Brazil
FC 3.4.2	209,965 farmers with a GPS map.	This indicator relates to the number of farmers, who have sold their cocoa to Barry Callebaut (both directly and indirectly), who have had at least one of their plots mapped up until the year ended 31 August 2019. Mapping is performed by Barry Callebaut staff, or by external consultants appointed by Barry Callebaut, using a GPS tracker and the data is uploaded to Barry Callebaut's cloud-based solution, Katchilé. Note that this KPI refers to the number of farmers who have had at least one of their plots mapped, therefore where a farmer has three farms mapped, it is reported as one. Origins in scope: Côte d'Ivoire, Ghana, Cameroon, Indonesia, Brazil
FC 3.4.3	47,182 cocoa farms in our direct supply chain within 25 km of a protected area in Côte d'Ivoire and Ghana	This indicator is calculated by summing up all of the mapped farms in Côte d'Ivoire and Ghana which are in the vicinity of 25 km of a protected area. Under no circumstances may cocoa be farmed in a protected area. The number of farmers at risk of sourcing from a protected area is defined by the Cocoa Forest Initiative (CFI), an industry-wide platform which aims to minimise the deforestation of the cocoa industry. Only Côte d'Ivoire and Ghana are in scope here as these are the origins in which we focus our CFI efforts on. Origins in scope : Côte d'Ivoire, Ghana
FC 4.1	51% of agricultural raw material sustainable sourced	This indicator is calculated as the combination of sustainably sourced cocoa and non-cocoa ingredients over the total volume of cocoa and non-cocoa ingredients sourced, as detailed below in FC 4.2 and 4.3.

FC 4.2	47% of sustainably sourced cocoa	This indicator measures the proportion of sustainably sourced cocoa over the total volume of cocoa sourced during the year ended 31 August 2019. Sustainably sourced cocoa is considered that which is purchased from certified or verified sustainable sources. Cocoa certifications considered "sustainable" in this context are Rainforest Alliance, UTZ, Fairtrade, Fair for Life, Mondelez, Cocoa Horizons and any combination of those.
FC 4.3	54% of agricultural non-cocoa ingredients sustainably sourced	This indicator is calculated as certified sustainable volume over the total volume of non-cocoa ingredients sourced* during the year ended 31 August 2019. *Due to limitations in the internal reporting system at Barry Callebaut, sales volumes of these raw materials, used as constituents of chocolate products in the year ended 31 August 2019, are used as a proxy for sourcing volumes. All non-cocoa raw materials are based on agricultural materials sourced for chocolate production. Ingredients include beet sugar, cane sugar, dairy, palm oil, soy and soy lecithin, vanilla, coconut oil, hazelnuts and other similar ingredients. Sustainably sourced non-cocoa raw materials are considered to be those which are purchased from certified or verified sustainable sources from external sustainability certification schemes such as Bonsucro, Fairtrade, Rainforest Alliance and RSPO, as well as Barry Callebaut's own program with Prova.