CHOBA CHOBA - Impact and Sustainable Practices

Choba Choba is the prototype of a different approach to the chocolate value chain. This document is intended to be a non-exhaustive list of Choba Choba's good practices, highlighting our vision for and commitments to a more sustainable cacao and chocolate industry.

- <u>Farmer-owned</u>

Most of the 6 million small-scale cacao producers worldwide are marginalized, earning insufficient compensation to sustain a dignified livelihood from their agricultural activities. In 2015, alongside 36 cacao-producing families from the Alto Huayabamba valley, we decided to offer a positive alternative to a destructive industry. Together, we founded Choba Choba, the first Swiss chocolate brand where cacao producers are co-owners, main shareholders and sitting at the board of directors of our private company. We share the same vision. We work hand in hand and make decisions together. An innovative and awarded model (Ashoka-UBS Social Innovator 2016, SEIF Awards for Social Entrepreneurship 2016, Viva Premios Schmidheiny 2018, Prix Suisse de l'Ethique 2021) delivering real economic, social, and environmental impact on the ground.

Vertically integrated value chain

Our approach fundamentally differs from the traditional cacao supplier-buyer relationship. Too often this relationship translates in divergent interests between parties and significant power imbalances. We operate as an impact driven ecosystem, fully embracing the interdependence between our farmer cooperative in the Peruvian Amazon (Cooperativa Agraria Cacaotera Choba Choba Ltda.) and our chocolate company in Switzerland (Choba Choba AG). Both entities share common interests and depend on one other. Our chocolates are exclusively produced from cacao grown on the 120 hectares of small agroforestry plantations owned by the 40 members of the cooperative, located on the banks of the river Huayabamba in the communities of Pucallpillo, Santa Rosa, Pizarro, and Bello Horizonte. We know all farmers, because we are the farmers.

On ethical certifications

Choba Choba has moved away from fair-trade, as much as it finds its origin there... With a long experience in certified value chains, we can affirm the following.

- a. Certifications provide a framework: by referring to precise specifications, they guarantee that the organizations holding the certificate respect a set of verified standards (agricultural, social, environmental, etc.) through the implementation of internal and external control systems.
- b. If ethical certifications like Fairtrade are interesting tools for small holder cooperatives to access niche markets and (in the best of cases) minimum prices, the economic impact at the farmgate level remains far too limited, if not non-existent.
- c. Consumers believe that they ensure a decent remuneration for farmers when buying fair-trade certified chocolates. However, for example, Fairtrade International officially recognizes that the minimum prices defined for cacao according to its own standards do not generate a living income for farmers.
- d. Ethical certifications are rather to be considered as value chain risk management tools for buyers, commercial tools for farmers cooperatives, and marketing tools for brands. There is nothing fundamentally wrong with this, but we must kill the myth that certification = impact.

e. Ethical certifications are built on the traditional commodity trade system which is structurally destructive and where farmers are price takers. Choba Choba champions a de-commoditized approach to cacao trading and turns around the power relations.

We recognize and value certifications for what they are. We acknowledge that Fairtrade is the most advanced ethical standard and trusted label in the cacao industry, and we salute their tremendous work in raising public awareness. But we consider our vertically integrated value chain model a better approach when it comes to delivering impact at farmer level.

Purchasing practices

The VOICE Network, identifies Good Purchasing Practices as one of the three complementary pillars (alongside Good Agricultural Practices and Good Governance Practices) on which sustainability can be built in the cacao sector. Choba Choba is all about offering opportunities and creating the enabling environment on the market side for cacao farmers to thrive. Long-term commitments and favorable purchasing practices are the norm at Choba Choba. Every year in December, the cooperative makes an offer for the cacao volumes of the next harvest, and every year we commit to purchase 100% of the first-grade organic cacao available, which represents between 85% and 95% of the total production.

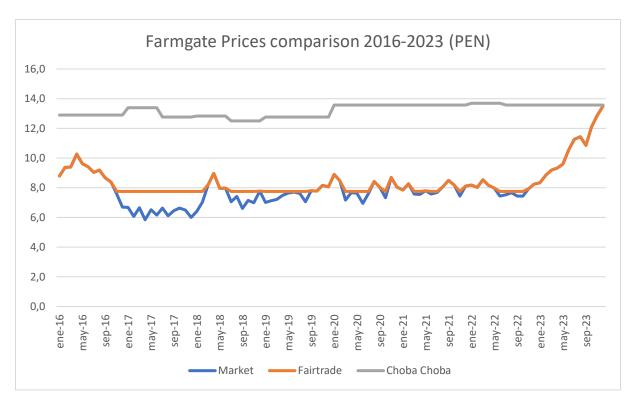
We do advance payments, pre-financing 100% of each container, providing the cooperative with the necessary working capital. In 2023 we purchased 45 tons of cacao for a total value of PEN 904'500 (USD 235'000), equivalent to USD 5'222 per ton, more than 100% above the market price at the signing of the contract.

Price and price setting mechanism

The global cacao prices traded on the London or New York stock exchanges determine the price paid to cacao producers worldwide. Differentials and premiums are sometimes applied based on the origin or certification programs, nonetheless, the market dictates prices and fluctuates rapidly and significantly. This instability results in uncertainty for producers who bear the full risk of price fluctuations. As long as cacao is considered a commodity with prices set on the stock exchange and subject to market speculation, producers will always be price takers with little to no power of negotiation. This power imbalance is a root cause of poverty.

Our price-setting mechanism is democratic and disconnected from the incessant fluctuations of stock markets. Each year, during the General Assembly of the cooperative, prices are proposed, debated, and adopted by the farmers themselves. The price is fixed per cacao variety and valid for the entire next year, withdrawing the risk from the farmers shoulders, providing stability, and allowing for individual financial planning. Price stability is as important as price itself.

Furthermore, we refer here to farmgate prices, meaning the actual price that farmers will receive for the harvested cacao. In the rare cases where chocolate brands communicate about prices, they usually announce "prices paid to farmers," which are oftentimes prices paid to exporters or farmer organizations, who logically take a margin to operate. This, therefore, says little or nothing about the price at the farmer level. We believe all chocolate brands should be able to tell what are the actual farmgate prices in their supply chains. Sadly, we are not there yet.



- On Living Income

The Living Income (LI), as defined by the Living Income Community of Practice, is "the net annual income required for a household in a particular place to afford a decent standard of living for all members of that household. Elements of a decent standard of living include: food, water, housing, education, healthcare, transportation, clothing, and other essential needs including provisions for unexpected events". Choba Choba acknowledges that Living Income is a basic human right, and a starting point towards thriving farmers and a sustainable cacao sector.

Back in 2022 we started to explore the concept of Living Income and how to address it in our value chain. The Living Income Reference Value for rural Peru (PEN 2'320 / month) published by the Global Living Wage Coalition, was a helpful tool to engage with the topic. Considering yields per hectare of 800 kilos, a farm size of 3 ha (the average Choba Choba farm), and sharp estimations of average costs of production, our satisfying conclusion was that the Choba Choba price paid to farmers that year (PEN 13,6 / USD 3,55 per kilo) was enough to generate a net income above the Living Income Reference Value. But averages are biased, and we decided to deep dive in the calculations...

Being cacao farmers ourselves, we chose to focus on understanding how much cacao farming contributes to bridging the Living Income gap (the difference between the actual net income and a Reference Value). In 2023, for the first time, thanks to primary data collected by all farmers throughout 2022, we could calculate this Living Income gap for a representative sample of the cooperative members, using the more recent Living Income Benchmark Study that was performed in Peru in May-June 2022 (PEN 2'371 / month), and customizing this value to the actual size of the farmers' household for personalized calculations.

We assessed a sample of 11 farmers in this regard, calculated a customized LI benchmark for each of them, and found out:

- 6 out of the 11 farmers earned, thanks to their cacao business only, a net income above their LI benchmark.

- On average, the net income from cacao farming in the sample represents 128% of the LI benchmarks.
- The median of the sample falls to 86%, and the analysis shows huge variations between farmers. This is mainly due to the different levels of dedication to cacao farming among the members of the cooperative.

Farmgate prices, farm yields and farm size are indeed key factors in the Living Income equation, and so is the ratio hired labor/family labor. Globally, farmers who cannot rely on family work power are unlikely to make a decent living from their cacao farm, regardless of the price they get, or the farms yields they achieve. Let's make it clear: cacao farmers can only thrive and earn a decent income under very specific conditions both on the farm side and on the market side. Sadly, these conditions are hardly met in the vast majority of the chocolate value chains.

We are determined to continue our work on the Living Income topic, acknowledging that reference values and prices, benchmarks, averages, and one-fits-all systems are by no mean the perfect approach. Whether or not we can determine if farmers earn a Living Income is the result of very complex equations and such claims should be based on accurate primary data and individual contexts. We invite all industry players to communicate on the topic in a very humble and conservative way.

- Traceability and deforestation-free cacao

Choba Choba is a human-scale project. This allows us to georeference all our cacao plots. Not just with basic points on a map, but with polygons that outline the precise boundaries of each small cacao plantation. This information is transparently available to everyone, as it is published on our website. This mapping allows (Choba Choba and anyone) to make comparisons with satellite imaging software (Geobosques, Global Forest Watch), supporting our efforts for deforestation-free cacao, in compliance with the European Union Deforestation Regulation.

Beyond regulations, preserving the forest and reconciling agriculture with the tropical forest are part of our DNA and mission. This is why in 2023 Choba Choba signed the *Acuerdo Cacao*, *Bosque y Diversidad* (Cacao, Forests, and Diversity Agreement). The agreement is promoted by the Coalition for Sustainable Production in Peru, a multi-stakeholder platform that seeks to address market sustainability demands and contribute to Peru's climate commitments. The initiative aims to position and strengthen Peru's differentiation as an exporter of quality cacao, with verified origin attributes and free from deforestation by 2025.

- Agroecology and Agroforestry Systems

We produce our cacao according to agroecology and agroforestry principles, fostering nature-based and nutrient-recycling solutions. Agroecology is defined as a conservation and rehabilitation approach to farming systems which allows greater agriculture resilience and positive environmental externalities. It includes the restoration and fertilization of degraded soils, the conservation and strengthening of biodiversity and the enhancement of ecosystem services. Agroforestry, on the other hand, deliberately integrates trees and shrubs into agricultural crops. In our plantations, this translates to the carefully planned cohabitation of cacao trees with shade trees, fruit trees, and legumes. This approach not only provides the necessary shade for cacao trees but also favors the production of organic matter, increases soil fertility, reduces the risk of erosion, all while offering additional sources of income to farmers.

These practices are not only agronomic innovations drawing on both local knowledge and modern techniques but also concrete actions for environmental preservation. The benefits are tangible:

improved water quality, local climate regulation, biodiversity protection, and increased resilience to climate change. In 2021 we decided to start a complete transition to more diversified agroforestry systems. We implemented, with the support of FiBL and Ecotop - two leading organizations in agroforestry system design & management - an ambitious Renovation, Rehabilitation, and Installation plan, according to dynamic agroforestry guidelines. For each plot we co-designed with the farmers a customized model and sponsored the transition. A set of minimum requirements to qualify for the program was defined as follows:

- a. For the first 3 years, the plantation must have a minimum of 3 different species of staple crops (beans, plantains, yams, corn, cocona, etc.) associated with cacao within the plot.
- b. For subsequent years, it should be associated with at least 4 other varieties of non-timber perennial crops, economically valuable (citrus, avocados, pepper, any other fruit tree in general, etc.) and with at least 3 non-perennial crops such as papaya, ginger, pepper, etc. These crops should optimize the use of different strata.
- c. Have a minimum of 4 different permanent shade tree species within the plot, with a maximum spacing of 15 meters x 15 meters between trees. Of these, one species must be a legume.
- d. The farmer must ensure that there is permanent ground cover, generating biomass and organic matter. This can be achieved through annual crops or the use of specific cover crops (climbing legumes, cucurbits).
- e. To ensure cacao diversification, and avoid monovarietal cacao farming, within the plot, there must be a minimum of 3 cacao varieties, following a specific varietal arrangement, of which a minimum of 5% are native varieties.

- Conservation and use of cacao genetic diversity

Peru is a megadiverse country recognized as an important center of genetic resources and hosts a wide diversity of cacao varieties. 6 of the 10 different genetic groups within the *Theobroma* cacao species find their origin in Peru. However, this diversity is threatened - especially in the San Martin region - by the development of monoclonal cacao farming (farms that only grow one variety). Unfortunately, this approach, promoted as part of a broader development strategy to provide a viable alternative to coca cultivation, has resulted in a significant loss of the local cacao diversity.

In 2017, thanks to the support of our community, we launched the "Nativo Project", an ambitious program to preserve and study the cacao diversity in the Huayabamba Valley. The first step, carried out between 2018 and 2019, was the identification, georeferencing and description of the many different cacao trees that we found in our plantations and the adjacent rainforest. Today, 89 different cacao varieties have been planted and preserved in our conservation garden in the Huayabamba Valley. 30 of them were pre-selected for certain agronomic and aromatic traits. Our research and evaluation work continues as we carefully study productivity, pest and disease tolerance, sexual compatibility, sensory profiles, and genetic make-up, to select and propagate the most interesting cacao varieties, both from the point of view of farmers and chocolate lovers.

Farmer entrepreneurship program

One of Choba Choba's working hypotheses is as follows: in order to thrive as cacao producers, farmers must not only adopt resilient agricultural practices but also possess entrepreneurial skills for the proper management and administration of their production unit. We have thus built a Farmer Entrepreneurship Program allowing farmers, based on their preferences and capacities, to develop a professional approach to cacao farming. Each farmer works according to a Yearly Operating Plan, enabling them to set goals, and to schedule and monitor their activities optimally. With the help of a

Farmer Field Book and digital tools, tailored to their profiles, farmers can record their expenses, activities, and income. A continuous training program in basic accounting and finance also allows them to become familiar with key concepts in the sound management of an agribusiness. All of this is voluntary and customized. These efforts and this approach translate into concrete results: between 2020 and 2022, both the average yields of the farms and the average revenue increased by more than 50%.

Organic Certification, additional ingredients, and food safety

All Choba Choba farmers are committed to organic farming. No chemical inputs (pesticides, fertilizers...) are allowed on our farms. Our cooperative in Peru is organic certified and all new farmers joining our organization must commit to transitioning to organic production. Our chocolates are organic certified, and we carefully select the additional ingredients we use in our products. Sometimes we must take difficult decisions, like when we purposely discontinued our best seller (58% with Blood Orange) because we could not find an organic certified alternative to our blood orange inclusions. At Choba Choba we don't produce yet our own cacao butter. Until then, we source it from organic and Fairtrade certified organizations based in Dominican Republic (Yacao, Fundopo, Conacado), arguably one of the most ethical sourcing available on the market.

Cadmium (Cd) is a heavy metal that can be found in the atmosphere, water, and soil. The presence of Cd in the environment is the result of a combination of natural and anthropogenic processes. The cadmium content in food has gained significant importance in recent decades due to increased consumer awareness regarding food safety and quality. In response to the above, the European Union established Regulation (EU) No 488/2014, which came into effect on January 1, 2019. This regulation sets the maximum levels of Cd allowed in chocolate and other cacao derivatives, varying by product between 0.10 and 0.80 ppm. Not only do we analysis Cd content on our cacao shipments, to ensure our chocolate products always comply with the regulations, but we also work hand in hand with research partners on the ground, exploring solutions to reduce Cd uptake by cacao trees.

- Child Labour

It's worth mentioning here that not all work by children is considered as child labor that should be targeted for elimination. Positive forms of child participation, like assisting in a family business or earning pocket money outside school hours, contribute to their development, family welfare, and prepare them for adulthood. But let's face it, child labor is a major problem in the cacao industry. Luckily, child labor is not a widespread issue in Peru. The Choba Choba cooperative gathers 40 families, and as we often repeat it: we are the farmers. In that sense it's easy for us to ensure and guarantee that no form of child labor whatsoever can be found on our farms. This said, our commitment to responsible practices extends to the prohibition of child labor. We do not engage, directly or indirectly, in any form of child labor in our cacao production operation, on and off farm. Our cooperative strictly adhere to national and international labor laws including the conventions of the International Labor Organization (ILO) concerning child labor. A formal statement letter from our cooperative on the matter is indeed available to anyone on request.

Choba Choba Foundation:

Operational since 2020, our foundation was established to expand our impact beyond our own value chain. This initiative, complementary to our social enterprise, thus amplifies the positive change we generate in the Peruvian Amazon, hand in hand with farmers. As cacao producers ourselves, we are aware that true transformation must go beyond good agricultural practices; it also involves creating

and grabbing opportunities. Thus, the Choba Choba Foundation aspires to accompany farmers in an entrepreneurial, agroecological, and resilient transition.

With the collaboration of our financial and technical partners, we implement and support projects that empower farmers and their families, promote agroecological practices, preserve the tropical forest and its invaluable biodiversity, to eventually improve the living conditions of those who, through their work and expertise, provide us with this unique tasting experience: chocolate.