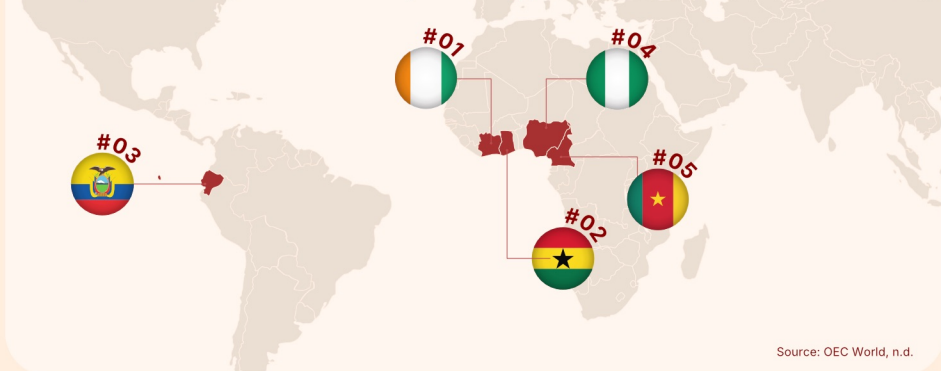


General Information

Cocoa (*Theobroma cacao*) is originally from South America

Top Cocoa Bean Exporting Countries in 2022



Grown across
12.10 mio ha globally

Estimated
5-6 mio Cocoa Producers Globally

5.76 million tonnes of cocoa were produced in 2020

Source: Our World in Data, 2021 RSPO, n.d Statista, 2024

PART OF COCOA PLANTS



Good Agriculture Practices

Forastero, Criollo, Trinitario, and Nacional are the **four major cocoa varieties**, with Forastero accounting for about 80% of the cocoa beans grown worldwide.



Cocoa trees thrive in tropical regions within 20 degrees of the equator at elevations up to 600 m. They can attain heights of 4 to 20 m.

Cocoa trees are frequently intercropped with tropical fruit trees, as they thrive in shady conditions, usually planted in a square or rectangular pattern around 3x3m or 3x4m.



The standard tree density is 800-1,100 trees/ha.

Cocoa beans are harvested from pods, typically 3 to 5 years after planting.



Cocoa can be harvested throughout the year; however, there are 1-2 distinctive peak harvesting periods depending on the growing region.

Planting material is seedlings with suitable clones in specific areas.



Cocoa requires a minimum of two clones per farm, though ideally three. Compatibility between clones is essential, as incompatibility can lead to cross-breeding pressure, resulting in lower yields.

Common pest & disease (P&D):

- Cocoa pod borer (*Conopomorpha cramerella*)
- Cocoa Mirid / Mosquito (*Helopeltis spp.*)
- Black pod and stem cancer (*Phytophthora palmivora*)
- Frosty pod (*Monilophora roreri*)
- Vascular streak dieback (*Oncobasidium theobromae*)
- Anthraxnose (*Colletotrichum gloeosporioides*)

P&D and weeds are controlled by pesticides, herbicides, and biological control methods (natural enemies).



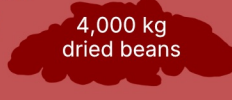
The cocoa flavor is affected by regional climate and soil conditions where the cocoa beans are cultivated.



Fertilizer dosage:



Potential maximum yields: 4,000 kg of dried beans per ha annually



Average yield:

- 700 kg of dried beans /ha/year for smallholders
- 1,500 - 3,000 kg of dried beans per hectare per year for farms implementing GAP

Current Issues



The European Union Deforestation-Free Regulation (EUDR) mandates that cocoa commodities and their derivatives imported into or produced within the EU must be verifiably free of deforestation and degradation starting from December 31, 2025.

Aging plantations, poor management, pests, and deforestation from cocoa farm expansion threaten cocoa production. Deforestation resulting biodiversity loss and climate change contribute to extreme weather, making some regions less viable for cocoa cultivation.



Cocoa producers are among the lowest earners, with 2 million cocoa producers living below the poverty line. Moreover, limited financial access and literacy prevent them from investing in quality seedlings and inputs to improve their farms.

Cocoa farming is often associated with labor issues, especially child labor, which restricts children's access to education and exposes them to unsafe working conditions.



Agroforestry in cocoa farming offers a solution, providing diverse income opportunities, creating microclimates that mitigate the impacts of climate change, and helping to preserve soil and water resources.

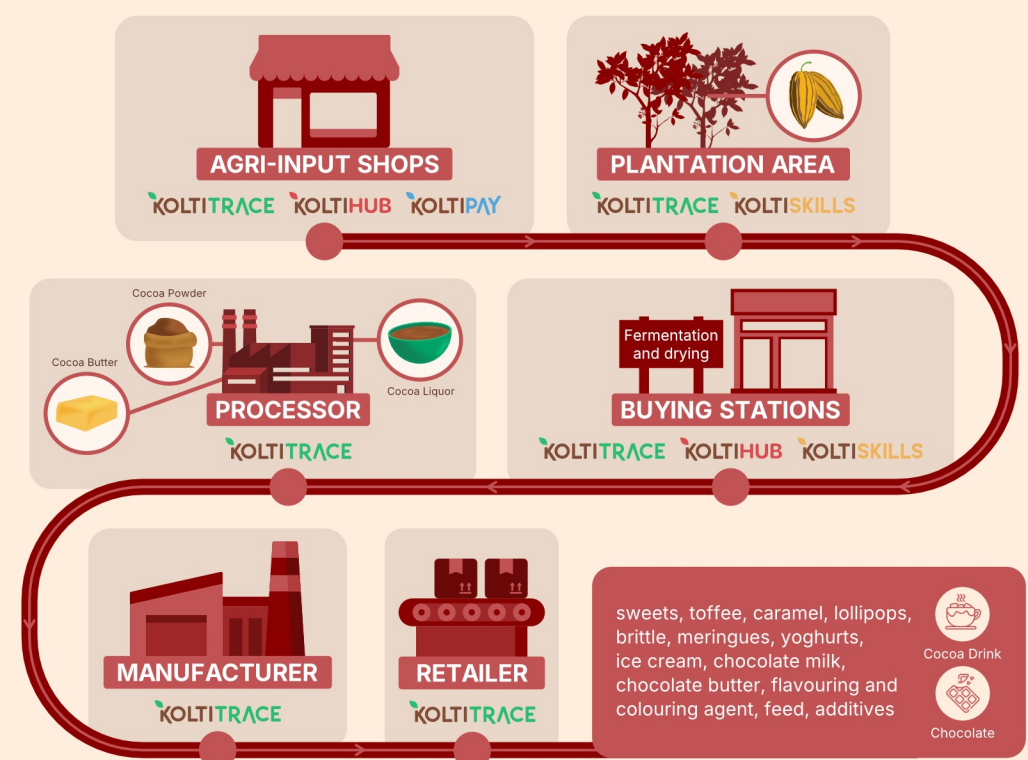
Certification

Cocoa certification is essential to ensuring sustainable practices in cocoa production.



There are several certifications in the cocoa industry, e.g., 4C, RA, Organic, Fair Trade, GI, and in-house schemes.

Supply Chain



Converting dried cocoa beans into a chocolate product requires roasting and winnowing to remove the outer shell and produce cocoa nibs. The nibs are ground into cocoa liquor, which can be processed into cocoa butter and powder or mixed with sugar and milk to create chocolate.