



# Chocolate Industry Meltdown

**For Prelims:** [El Niño](#), [Heat waves](#), [Climate change](#), [Cocoa Cultivation](#), [International Cocoa Organisation \(ICCO\)](#)

**For Mains:** Impact of Climate change on Chocolate Industry, Significance of Policy Development for Cocoa Production in India

[Source: IE](#)

## Why in News?

The **chocolate industry** is facing a **crisis as the price of cocoa beans surges**, reaching a record USD 12,000 per tonne in April 2024.

- This surge, nearly four times the price in 2023, has sparked concerns and drawn attention to the underlying causes behind the upheaval.

## What are the Reasons Behind the Rising Prices of Cocoa?

### ▪ El Nino and Climate Change:

- The immediate reason for the ongoing crisis is the **bad harvest season in [West African countries Ghana and Ivory Coast](#)**, where 60% of the world's cocoa beans come from.
- The development of [El Niño](#), a weather pattern that refers to an abnormal warming of surface waters in the **equatorial Pacific Ocean**, led to **heavier-than-usual rainfalls in West Africa**, creating an ideal ground for the spread of **black pod disease**, which causes cocoa pods to rot on the branches of cocoa trees.

- [Climate change](#) is also a driving factor, with [Heat waves](#), [droughts](#), and heavy rainfalls further threatening cocoa production, posing long-term challenges for farmers and chocolate manufacturers alike.

### ▪ Low Income for Cocoa Farmers:

- The underlying issue is that the big chocolate companies **do not pay enough to the cocoa farmers in West Africa**, who earn on average as little as less than USD 1.25 a day, which is well below the [United Nations' absolute poverty line of USD 2.15 per day](#).
- Farmers are **not able to invest in land to increase yield or build resilience against climate change** due to the lack of funds, leading to the use of slave and child labour, and the selling off of land to illegal gold miners.
  - As a result, the farmers continue to live in poverty, unable to invest in their land or adopt sustainable practices, **leading to decline in production and price surge**.
- Despite the **huge profits made by the chocolate companies, they have not done much to help raise farmers' income**, contributing to the long-term exploitation of farmers and potentially leading to **higher chocolate prices for consumers in the long run**.

## ▪ Potential Consequences of the Ongoing Crisis:

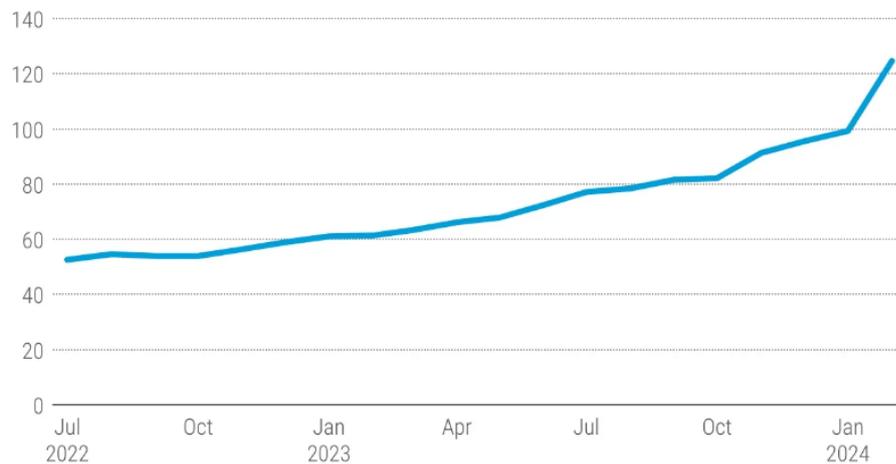
- The **International Cocoa Organisation (ICCO)** predicts a global shortfall of about 374,000 tonnes for the 2023-2024 season, exacerbating the scarcity of cocoa beans and driving up chocolate prices.
  - ICCO is an **intergovernmental organisation established in 1973 under the United Nations**.
  - Based in **Abidjan, Ivory Coast**, ICCO was created to implement the **first International Cocoa Agreement negotiated in Geneva** at a **United Nations International Cocoa Conference**.
- The scarcity of cocoa beans is likely to persist, leading to further exploitation of farmers and a rise in chocolate prices.
- Experts believe that the prominent chocolate companies have the room to redistribute wealth down the supply chain, but unless they do so, the situation is unlikely to improve.

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## Bittersweet climb: The rising cost of cocoa

Cocoa prices, deflated by the US Consumer Price Index, July 2022 – February 2024, Index 2010 = 100



## Cocoa Cultivation Requirements

- **Altitude and Rainfall:** Cocoa can be grown up to **300 m above mean sea level**. It requires a **minimum of 90-100 mm rainfall per month** with an annual rainfall of 1500-2000 mm.
- **Temperature and Soil Conditions:** Cocoa prefers **warm and consistent temperatures**, the temperature range of 15°- 39°C with an optimum of 25°C is considered ideal.
  - Cocoa requires deep and well-drained soils. Poorly drained soil affects the growth of plants. The majority of the area under Cocoa cultivation is on **clay loam and sandy loam soil. It grows well in the pH range of 6.5 to 7.0.**
- **Agroforestry:** Cocoa trees **thrive under shade and are often grown under the canopy of taller trees**. This agroforestry practice not only helps in maintaining the required microclimate but also supports biodiversity.
- **Cocoa Production in India:**
  - Cocoa is best cultivated in coconut and **areca nut** gardens in India, where **30-50% of sunlight can be intercepted by cocoa under the areca nut canopy**.
  - In India, it is mainly cultivated in **Andhra Pradesh, Karnataka, Kerala and Tamil Nadu** mainly as intercrop with Arecanut and Coconut.
  - **National Horticulture Mission** provides a subsidy of Rs 20,000 per hectare to cocoa

farmers in Andhra Pradesh for the first three years.

- **Central Plantation Crops Research Institute** Conducts systematic cocoa improvement programs with germplasm introductions.



### **Drishti Mains Question:**

How does climate change exacerbate challenges for cocoa farmers, and what are the implications on the chocolate industry?

## **UPSC Civil Services Examination Previous Year Questions (PYQs)**

### **Prelims:**

**Q. Aspartame is an artificial sweetener sold in the market. It consists of amino acids and provides calories like other amino acids. Yet, it is used as a low-calorie sweetening agent in food items. What is the basis of this use? (2011)**

- (a) Aspartame is as sweet as table sugar, but unlike table sugar, it is not readily oxidized in human body due to lack of requisite enzymes
- (b) When aspartame is used in food processing, the sweet taste remains, but it becomes resistant to oxidation
- (c) Aspartame is as sweet as sugar, but after ingestion into the body, it is converted into metabolites that yield no calories
- (d) Aspartame is several times sweeter than table sugar, hence food items made with small quantities of aspartame yield fewer calories on oxidation

**Ans: (d)**

