

नुक्कड़

**nukkad**

May 9th, 2023

**actionable intelligence**

Inflation

**India's retail infatation**

Even as retail inflation is expected to start easing from April to about 5%, if not lower, thanks to a broad-based fall in prices, elevated milk prices could play spoilsport, with analysts expecting milk inflation to remain near double digits at least through the summer.



# bazaar

## India's retail inflation and milk prices

Even as retail inflation is expected to start easing from April to about 5%, if not lower, thanks to a broad-based fall in prices, elevated milk prices could play spoilsport, with analysts expecting milk inflation to remain near double digits at least through the summer.

Retail milk inflation has remained elevated at over 6% since August 2022 and was at 9.24% year-on-year in March this year, even as consumer price index inflation in the month eased to 5.66%. Even in terms of wholesale price inflation, milk prices have remained high at 8.48% in March despite the overall inflation trending to 1.34% in the month, indicating that retail prices will continue to rise.

The finance ministry attributed the elevated milk inflation to a demand-supply mismatch. It said it could be one of the factors, apart from volatile international crude oil prices and constrained milk supplies, that would influence the country's inflation trajectory.

The high cost of feed and raw materials, supply challenges, lumpy skin disease and rising dairy exports have impacted milk production and costs, leading organised players, including Mother Dairy and Amul, to hike milk prices multiple times last year.

While pegging retail inflation at 5.2% in FY24, the Reserve Bank of India has noted that milk prices could remain firm due to high input costs and seasonal factors.

Milk prices play a significant role in India's retail inflation as milk is a staple food item and a vital component of the consumer basket. Here are some aspects of the role of milk prices in India's retail inflation:

**Food Inflation:** Milk is a significant food item consumed by a large population segment. Fluctuations in milk prices directly impact food inflation, which is a significant component of overall retail inflation. When milk prices rise, it can increase production costs for food manufacturers, restaurants, and households, increasing prices for dairy-based products and contributing to inflationary pressures.

**Household Expenditure:** Milk is a basic necessity and a significant part of household budgets in India. Changes in milk prices can have a direct impact on household expenditure. When milk prices increase, it can strain household budgets, particularly for lower-income groups who spend a higher proportion of their income on food. This can reduce purchasing power and affect consumption patterns, influencing overall retail inflation.

**Supply-Demand Dynamics:** Milk prices can be influenced by supply-demand dynamics in the dairy sector. Changes in milk production, fodder availability, weather conditions, and input costs can impact milk prices. Supply shortages or disruptions can lead to price increases, impacting retail inflation.

**Input Costs for Food Processing:** Milk and dairy products are essential ingredients in various processed foods, including sweets, baked goods, beverages, and dairy-based snacks. Fluctuations in milk prices directly affect the input costs for food processing companies. These increased costs may be passed on to consumers through higher prices for processed food products, contributing to retail inflation.

**Government Interventions:** The government of India regulates milk prices in some states through agencies like the National Dairy Development Board (NDDB) and state-level milk marketing federations. Price interventions, subsidies, milk procurement, production, and distribution policies can affect retail inflation.

It's important to note that the specific impact of milk prices on retail inflation can vary depending on various factors such as regional variations, government policies, market competition, and overall economic conditions. Monitoring milk prices and their influence on retail inflation is essential for policymakers, economists, and consumers to understand and manage inflationary pressures in the economy.

**The domestic supply cannot be increased within a short period, and hence, milk inflation may remain firm at high single digits in the near to medium term.**

# bazaar

## Lumpy Skin Disease: Impact on India's Dairy Industry and Outlook

In 2022, India experienced a nationwide spread of lumpy skin disease (LSD), a highly infectious multisystemic disease affecting cattle. The lumpy skin disease virus causes LSD, a member of the poxviridae family in the capripoxvirus genus, also known as the Neethling poxvirus. The disease is similar to sheeppox and goatpox viruses. LSD outbreaks can vary in virulence, and the morbidity rate can range from 5% to 100%, with mortality usually between 5% and 20%.

**Transmission and Progression:** LSD virus is primarily transmitted by arthropod vectors such as mosquitoes, house flies, and ticks rather than through direct contact. The virus is present in nasal and lacrimal secretions and semen of infected animals. While all ages and types of cattle are susceptible to LSD, young calves and lactating and malnourished cattle are more prone to severe clinical disease. The incubation period is typically 2 to 4 weeks, followed by a rise in temperature and symptoms such as lacrimation, nasal discharge, salivation, and lameness. Nodules measuring 1 to 4 cm in diameter appear on the skin, spreading from the perineum to other areas. The disease can also lead to pneumonia and other complications. The recovery takes 4 to 12 weeks, and pregnant cows may experience abortions.

**Economic Impact:** LSD outbreaks have significant economic implications for the dairy industry. The disease causes a decrease in milk yield, ranging from 10% to 85%, due to fever, general sickness, and secondary mastitis. Losses are also recorded from damaged hides, reduced body condition, decreased fertility in bulls, and abortions in cows. The World Organization for Animal Health (OIE) considers LSD a notifiable disease due to its economic impact and trade restrictions. Thus, understanding the disease's impact is crucial for allocating resources to disease control programs.

**LSD in India:** LSD was first confirmed in India in 2019, and subsequent outbreaks occurred in 2021 and 2022, affecting multiple states. Control measures, including ring vaccinations, were implemented, but the disease spread. The government supported affected states in terms of

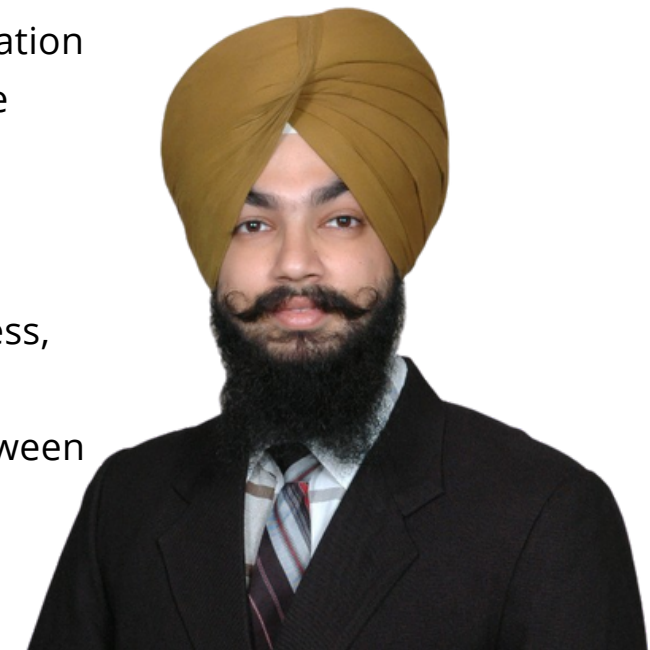
funding, technical assistance, and awareness campaigns. Vaccination with the Goatpox vaccine was conducted heterogeneously, while some states received initial batches of the homologous Lumpy-ProVacInd vaccine.

However, vaccination during an outbreak has limited effectiveness, and prophylactic vaccination before the monsoon season is recommended. As per Jordbrukare, this could have affected between 1% to 3% of overall Indian milk production.

**Future Outlook:** The resurgence of LSD in 2023 is anticipated, as the government has initiated preventive vaccination and

awareness drives. Outbreak severity varies, and climatic factors, such as increased rainfall, can contribute to more severe outbreaks. With the expected rise in mosquito populations due to increasing temperatures, LSD control measures must be reinforced. Transmission through venereal/vertical means necessitates stringent testing and precautions in breeding processes. Investigations are needed to determine the susceptibility of buffaloes and other wild ruminants as potential reservoir hosts.

**Conclusion:** Lumpy Skin Disease poses a significant threat to India's dairy industry. The disease's impact includes decreased milk production, reduced fertility, mortality, and economic losses. Efforts to control LSD through vaccination, awareness campaigns, and effective surveillance are crucial. Continued research and collaboration among veterinary experts, government agencies, and stakeholders are essential to mitigate the impact of LSD on India's dairy sector.



Dr Simrandeep Singh. Jordbrukare

# bazaar market watch

Dairy Prices India	INR/Kilogram						
	As Of	Weekly Avg	Last Close				
	May 4, 2023	Spot	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23
<b>Cheddar</b>							
CME Spot Block (18kg Block)	₹303						
CME Spot Barrel (227kg Barrel)	₹284						
EU Spot Cheddar							
CME Cheese Futures		₹320	₹336	₹351	₹363	₹367	
GDT Cheddar Auction		₹386	₹393		₹370	₹363	
<b>Butter</b>							
CME Spot Butter (80% BF)	₹436						
CME Butter Futures (80% BF)		₹440	₹447	₹452	₹457	₹457	
EEX Butter Futures (82% BF)		₹428	₹440	₹446	₹450	₹462	
NZX Butter Futures (82% BF)							
GDT Butter Auction (82% BF)		₹411	₹406	₹410	₹402	₹401	
<b>Skimmed Milk Powder/NF Dried Milk</b>							
CME Spot NFDM	₹213						
CME NFDM Futures		₹214	₹222	₹227	₹231	₹234	
EEX SMP Futures		₹224	₹235	₹239	₹244	₹250	
NZX SMP Futures							
GDT SMP Auction		₹253	₹227	₹225	₹225	₹230	
<b>Dried Whey Powder</b>							
CME Spot Dry Whey	₹61						
CME Dried Whey Futures		₹66	₹63	₹63	₹65	₹66	
EEX Dried Whey Futures		₹62	₹65	₹66	₹69	₹69	
<b>g-DIP (Ingredient price assessment)</b>							
global Butterfat (BF)		₹435	₹438	₹471	₹462		
global Solids Nonfat (SNF)		₹193	₹198	₹202	₹205		

Low Price  High Price

Dairy Production India	DAIRY PRODUCTION		2018	2019	2020	2021	2022(f)	Growth	Time frame
	Liquid milk Cows Only		77	79	81	83	85	+2,4%	Jan-Dec 2022
	Liquid milk Cows + Buffalos								
	Butter		5.6	5.85	6.1	6.3	6.5	+3,2%	Jan-Dec 2022
	SMP		600	635	660	680	700	+2,9%	Jan-Dec 2022
	DOMESTIC CONSUMPTION		2018	2019	2020	2021	2022(f)		
	Butter		5.577	5.803	6.08	6.275	6.47	+3,1%	Jan-Dec 2022
	SMP		572	601	636	668	682	+2,1%	Jan-Dec 2022

commodity Prices	INR/100 Kilogram (quintal)							
	Last Close							
	May 4, 2023	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	market	magnitude
<b>Soybean</b>								
Chicago Board (US)			₹4,276	₹4,104	₹3,897		inverse	-₹379
Dalian (China)			₹5,675		₹5,633		inverse	-₹42
NCDEX (India)							Not Traded	
<b>Soybean Meal</b>								
Chicago Board (US)			₹3,842	₹3,787	₹3,700	₹3,626	inverse	-₹55
Dalian (China)			₹4,128	₹4,133	₹4,117		carry	₹5
<b>Corn</b>								
Chicago Board (US)			₹1,903		₹1,717		carry	₹186
<b>Wheat</b>								
Chicago Board (US)			₹1,945		₹1,988		inverse	-₹43
<b>Veg Oil</b>								
<b>Soybean Oil</b>								
Chicago Board (US)			₹9,498	₹9,470	₹9,426	₹9,363	inverse	-₹72
Dalian (China)			₹9,048	₹8,958	₹8,873		inverse	-₹90
NCDEX (India)								
<b>Crude Palm Oil</b>								
Chicago Board (US)								
Bursa (Malaysia)								
MCEX (India)								
<b>Sugar</b>								
Raw Sugar (ICE)			₹4,619			₹4,584	inverse	-₹35
White Sugar (London)								

Carry  Inverse

Note: NCDEX Soybean prices published by NCDEX but the futures are on trading halt.



# bazaar

## India: weekly vitals

### Milk Price

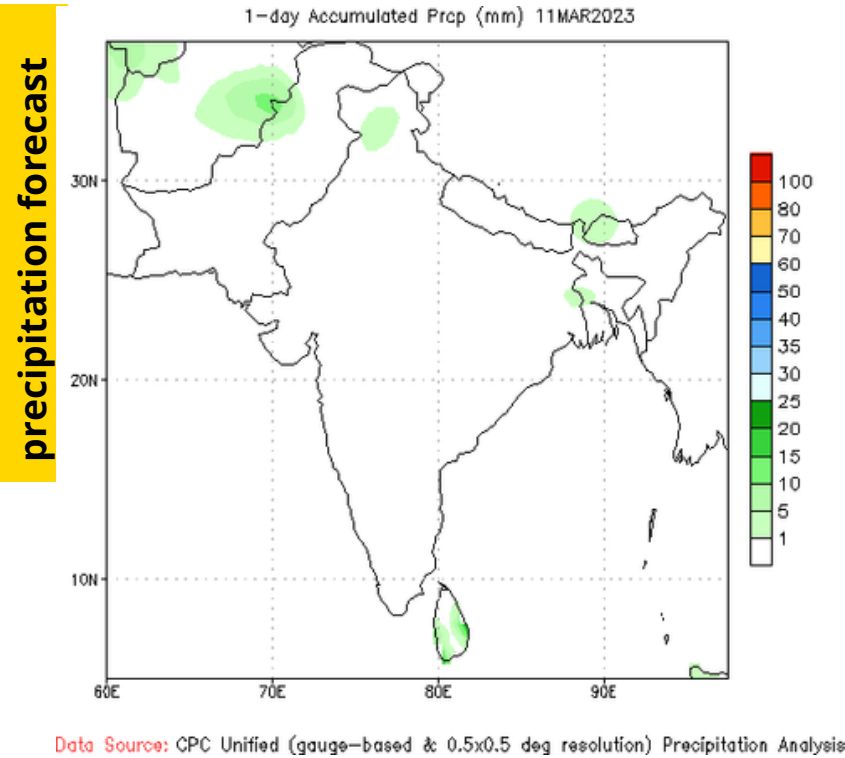
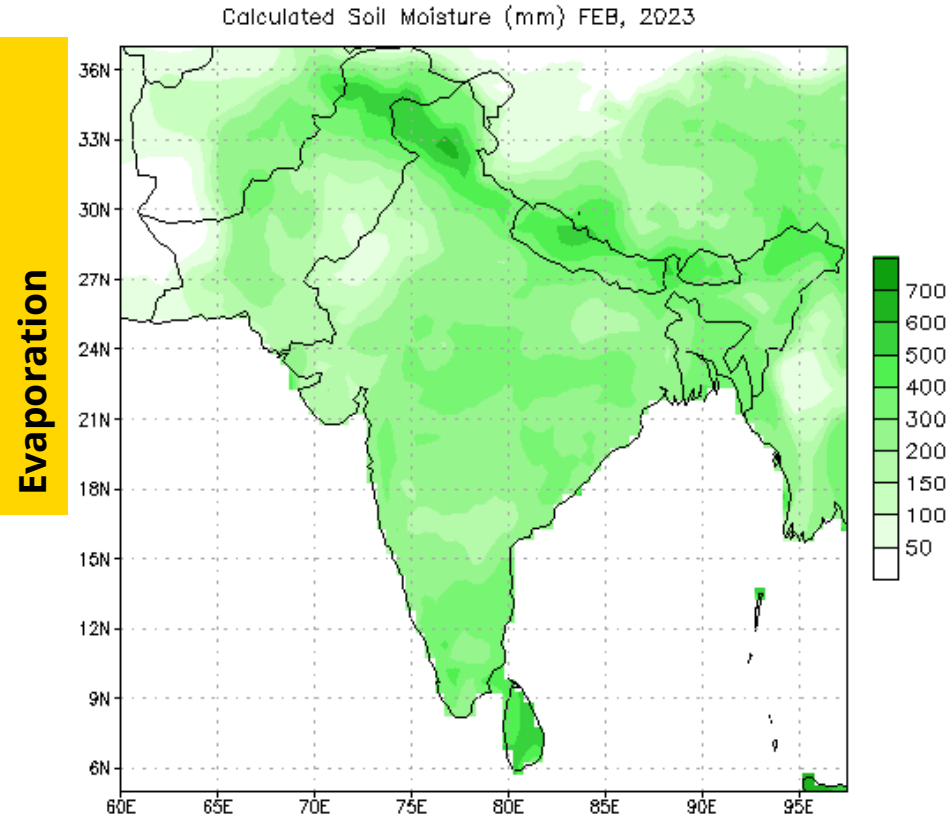
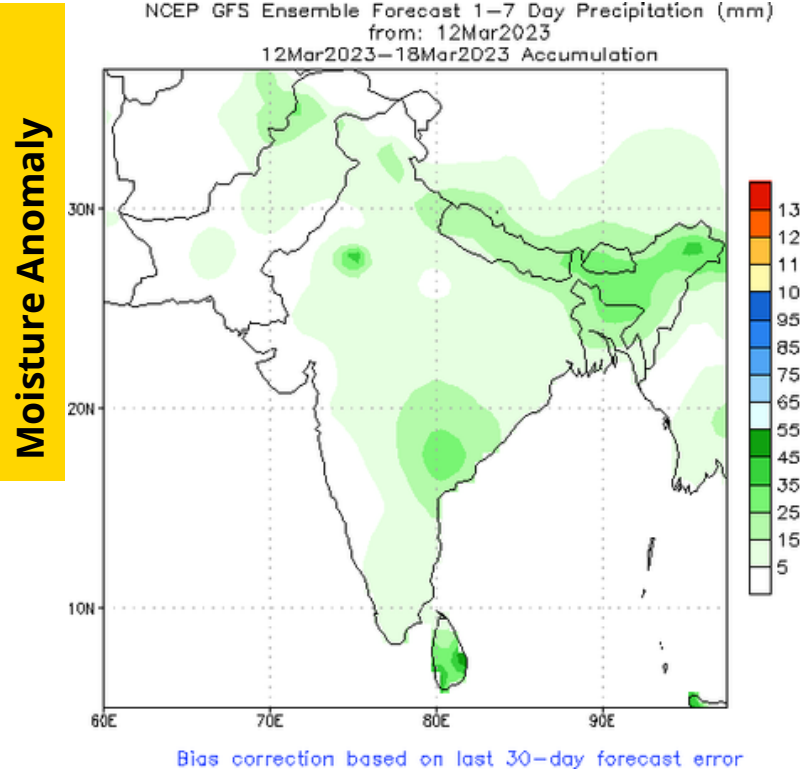
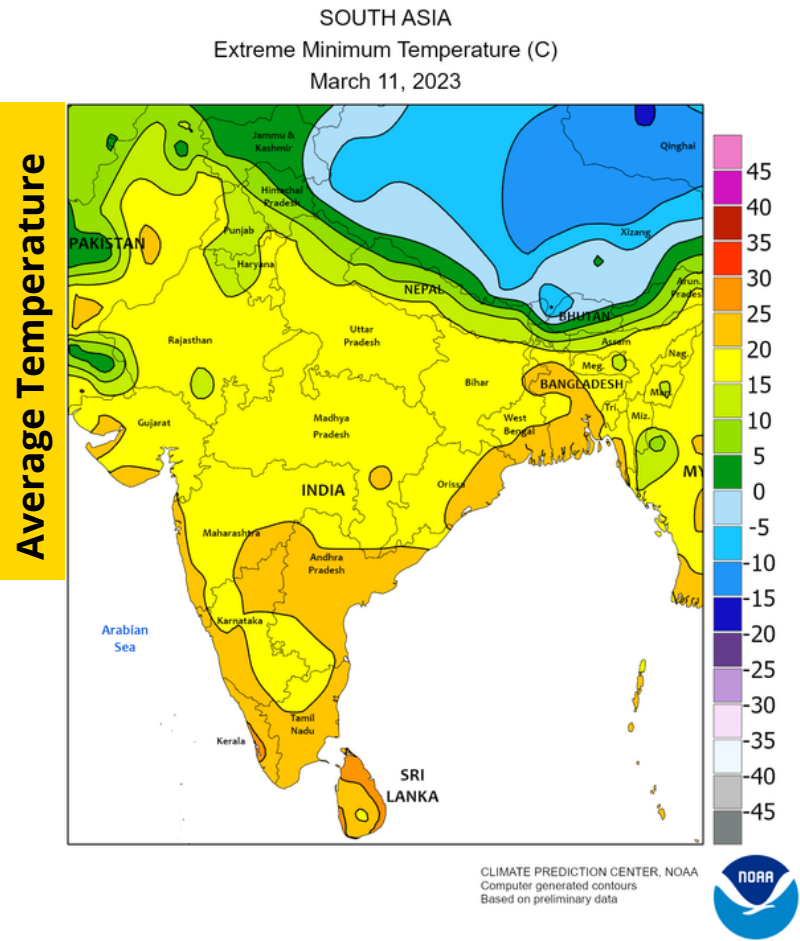
Market	Price As On	1 Day back	5 Days back	1 Week back	1 Month back	1 Year back
	07/05/2023	06/05/2023	02/05/2023	30/04/2023	07/04/2023	07/05/2022
Retail	56.29	56.76	57.26	55.77	56.01	51.10
Farm Gate	53.01	53.49	53.76	52.52	52.33	48.14

Source: Gov of India

### Currency

CURRENCY	NAME	UNITS PER INR	INR PER UNIT
<a href="#">USD</a>	US Dollar	0.012	81.77
<a href="#">EUR</a>	Euro	0.011	91.58
<a href="#">GBP</a>	British Pound	0.010	103.34
<a href="#">AUD</a>	Australian Dollar	1.000	1.00
<a href="#">CAD</a>	Canadian Dollar	0.018	55.25
<a href="#">SGD</a>	Singapore Dollar	0.016	60.92
<a href="#">CHF</a>	Swiss Franc	0.016	61.67
<a href="#">MYR</a>	Malaysian Ringgit	0.011	91.21
<a href="#">JPY</a>	Japanese Yen	0.054	18.43
<a href="#">CNY</a>	Chinese Yuan Renminbi	1.649	0.61
<a href="#">NZD</a>	New Zealand Dollar	0.085	11.83
<a href="#">LKR</a>	Sri Lankan Rupee	3.893	0.45
<a href="#">BDT</a>	Bangladeshi Taka	1.302	0.77
<a href="#">PKR</a>	Pakistani Rupee	3.470	0.29
<a href="#">NPR</a>	Nepalese Rupee	0.085	11.81
<a href="#">AED</a>	Emirati Dirham	0.045	22.26

Source: Xe.com



Source: US National Weather Service



# bazaar supply & demand



**AU:** Domestic competition for available milk is gaining momentum as the milk production season nears an end. Substantial declines in milk supply are prompting aggressive supply chain strategies within the dairy industry. Meanwhile, milk plant closings are developing daily as Australia's surplus plant capacity in the milk processing sector overshadows the limited milk supply. On the heels of further weakening of milk supplies, sources note one of the nation's giant supermarket chains recently purchased two milk processing facilities to build the security of their long-term milk supply.



**EU:** In February 2023, the estimated amount of cows' milk delivered to dairies in the European Union (EU) was 11,131,000 metric tons (MT), showing a 0.6% increase compared to the previous year. Looking at the year-to-date data for EU cows' milk delivered to dairies through February 2023, it is estimated to be 22,948,000 MT, reflecting a 0.7% t growth when compared to the same period in 2022. Among the leading Western EU milk producers, some notable figures and %age changes from January to February 2022 are as follows:

- **Germany:** Year-to-date milk deliveries of 5,313,000 MT, showing a 3.0 % increase.
- **France:** Year-to-date milk deliveries of 3,950,000 MT, experiencing a 1.2 % decrease.
- **Netherlands:** Year-to-date milk deliveries of 2,322,000 MT, indicating a 4.3 % increase.



**NZ:** In March, milk production resulted in another month of increased output for the fourth time in as many months. Milk production has been supported by better pasture growth conditions that will likely continue through the last few months of the season. Sources project milk production to fall 0.7% for 2022-2023, compared to a year earlier. Meanwhile, multiple milk co-ops have revised their milk price forecasts by adjusting milk prices downward. Key to the adjustments is Chinese WMP demand, which failed to recover at the expected levels. Sources report that WMP inventories in China are stable from active domestic production over several months. However, according to sources, China's current levels of domestic milk supply may become more expensive to produce. Consequently, China's import of WMP is expected to increase later in the year.



**The U.S.:** In March 2023, milk production reached 19,805,000,000 units. During this period, the number of milk cows was 9,435,000, and the average milk production per cow was 2,099 units. In February 2023, milk production amounted to 17,726,000,000 units. There were 9,429,000 milk cows, and the average milk production per cow was 1,880 units. In January 2023, milk production was recorded at 19,311,000,000 units. The number of milk cows stood at 9,407,000, and the average milk production per cow was 2,053 units.



**LATAM:** The export of dairy commodities from Argentina and Uruguay to Brazil has progressed steadily. While cheese imports to Brazil, the largest destination in the continent, have been robust, the demand for milk powders, particularly whole milk powder, has been robust. Chinese and Algerian importers continue to be significant players in the market, but most dairy commodities are directed towards Brazil. Prices for whole milk powder (WMP) and skim milk powder (SMP) in the region have either remained stable or experienced an upward trend, indicating a positive market outlook.



**IN:** Amit Shah, Union Minister of Home Affairs & Cooperation, appreciated National Dairy Development Board (NDDB) 's initiatives in the Indian dairy sector and asked the dairy board to further strengthen cooperative dairying by playing a significant role in establishing viable dairy cooperatives in uncovered panchayats/ villages having potential for dairying. The Minister met with NDDB's board members in New Delhi to discuss issues related to the dairy sector. He also highlighted the need for multi-commodity cooperatives, familiar brands for the export of products of cooperatives, promotion of organic produce, better capacity utilisation of milk processing facilities by cooperation among cooperatives, self-reliance in manufacturing dairy machinery and also export of indigenous dairy equipment through IDMC Ltd, a subsidiary of NDDB.



## Global Assessment As of May 06, 2023

The following prices are a forward assessment  
of dairy ingredient values in global markets in  
USD/Ton

### June

Butterfat	\$5.312
SNF	\$2.353

### July

Butterfat	\$5.341
SNF	\$2.407

### August

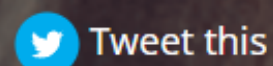
Butterfat	\$5.723
SNF	\$2.459

### September

Butterfat	\$5.615
SNF	\$2.488

Our next price update will be on May 20,  
2023.

Refer to [Our Methods](#) for information on the calculations.<sup>1</sup>



GDIP: As per the g-dip assessment ([www.globalmilk.net](https://www.globalmilk.net)), Global price assessment (not a forecast)

Global price (not a forecast)

Jun: Butterfat \$5.312, SNF \$2.353

Jul: Butterfat \$5.341, SNF \$2.407

Aug: Butterfat \$5.723, SNF \$2.459

Sep: Butterfat \$5.615, SNF \$2.488

With an immense sense of responsibility, we are happy to launch the g-DIP Project ([www.globalmilk.net](https://www.globalmilk.net))

g-DIP (global Dairy ingredient price assessment) is the result of countless discussions across 5 continents over the past 5 years to assign a Spot and Forward assessment to the value of dairy ingredients. In its current form, the assessment includes a Spot and 3-month Forward value for both global Butterfat and Nonfat Solids, published biweekly. The assessments are available for everyone, at no cost.

The assessments aim to:

- Inform dairy commodity negotiations in origin and destination markets and global trade.
- Surface ingredient value from observed commodity prices, traded and reported, and an anticipated global trade balance

We invite you to join us, participate in the community and strengthen the methodology and use the assessments to inform your commercial negotiations. You will be able to share the g-DIP assessment by tweeting it from your Twitter accounts as well.

Note:

The methodology used to derive the assessments is available on the website: [Methods](#)

A video explaining the assessment and its applications is available: [Apply g-DIP](#)



Asia

**IN:** Dairy farmers are facing a fodder crisis, which is causing an increase in milk costs since fodder makes up 70% of the total cost. According to a Punjab-based fodder expert Harinder Singh, the prices of dry and green fodder have increased up to 300% and 200%, respectively, further worsening the situation for farmers and causing a reduction in milk production or abandonment of the dairy farming profession. Recently, the Reserve Bank of India's interest-rate-setting committee claimed that milk prices were driving inflation, as milk has a 6.6% weightage in the consumer price index basket. Over the last year, milk prices have risen by more than 15% due to an 8-10% increase in demand for dairy products, which resulted in high inflation.

**IN:** In an interview with The Hindu Business Line, Mr RS Sodhi, the President of the Indian Dairy Association (IDA), emphasized the association's consistent stance against the zero-duty imports of dairy products from foreign countries. Mr Sodhi highlighted the importance of supporting domestic dairy producers and promoting self-sufficiency in the dairy sector. The IDA firmly believes that imposing duties on imported dairy products is necessary to protect the interests of Indian dairy farmers and ensure a level playing field in the market.

**IN:** According to market observers, dairy product prices in India are expected to remain firm due to higher demand. The increased demand for dairy products, such as milk, cheese, and butter, is driven by a growing population, rising disposable incomes, and changing dietary habits. The report suggests that the prices will likely stay elevated soon, posing a challenge for consumers. However, this trend favours dairy farmers and industry stakeholders, indicating a positive market outlook and potential profitability.

**IN:** Dairy plays a unique role in empowering women and promoting self-reliance. President Murmu emphasizes the significant contribution of women in the dairy industry and how it has transformed their lives by providing them with economic opportunities and financial independence. The President emphasizes the need for continued support and investment in the dairy sector to empower women further and enhance their livelihoods. The article underscores the importance of recognizing and promoting the role of women in the dairy sector as a critical driver of economic growth and social development.

**BD:** Import of dairy products has increased 178% (in terms of value) month from December 2022 to Jan 2023. The January imports stood at 6907 million takas of 64.7 million USD. Whereas Feb imports stood only at 2589 million Taka (24.27 million USD)

**VN:** According to an anonymous source, Singapore-based company Growtheum plans to invest \$100 million in Vietnam's dairy maker IDP. The move by Growtheum reflects its confidence in the increasing consumption of dairy products in Vietnam. Growtheum will acquire a 15% stake in IDP as part of the investment. This partnership is expected to contribute to the growth and development of IDP in the Vietnamese dairy market.

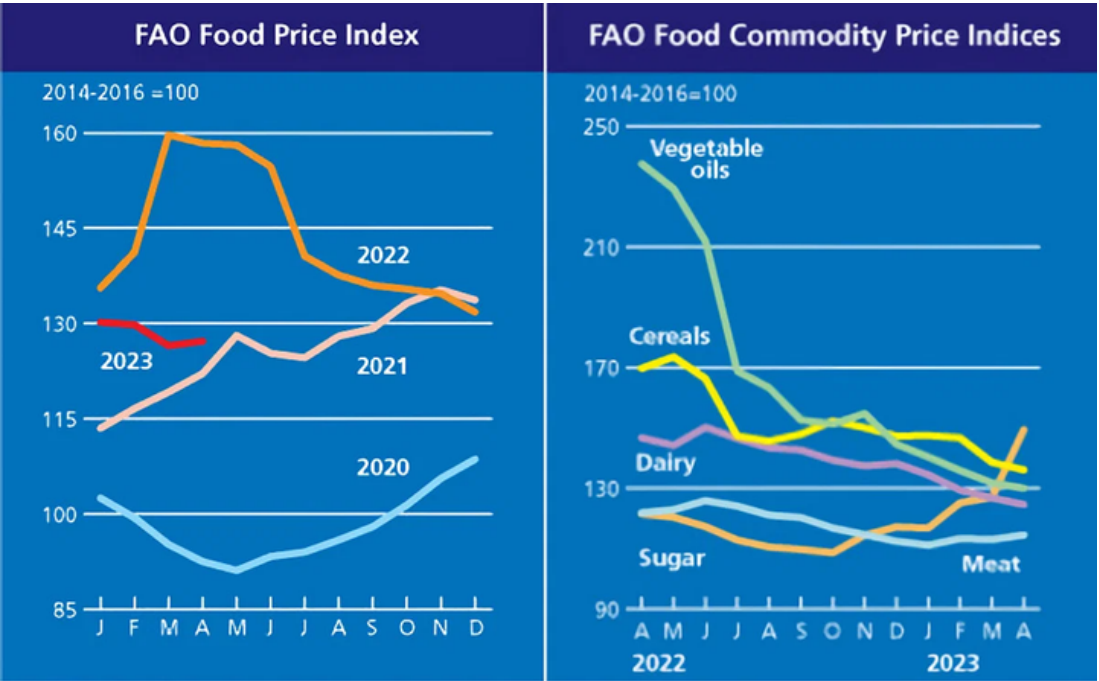
**ID:** The Indonesian Industry Ministry is exploring collaboration and investment opportunities with the Dutch government and companies to enhance the supply of dairy cows in Indonesia. This initiative aims to boost the development of Indonesia's dairy processing industry and meet the increasing demand for Domestic Fresh Milk (SSDN) as a raw material for dairy products. The ministry's director general of agro-industry, Putu Juli Ardika, emphasized the importance of strengthening the quality of dairy cow supply to improve industry productivity. In April 2023, a delegation from Indonesia, including representatives from the Indonesian Embassy in Brussels and The Hague, visited the Netherlands. During the visit, they held meetings with various stakeholders, including the Dutch Ministry of Agriculture, Nature and Food Quality (LNV), The Netherlands Agricultural and Horticultural Association (LTO), FrieslandCampina N.V. (a Dutch multinational dairy cooperative), and dairy farmers affiliated with the cooperative.



Africa

**TN:** According to the Tanzania Dairy Board, the country must produce around nine billion litres of milk annually to become self-sufficient. Currently, Tanzania's milk production stands at around 2.4 billion litres per year, leaving a substantial gap to be filled. The government is implementing various strategies to boost milk production, including promoting investments in the dairy sector, improving access to quality animal breeds, providing training and extension services to farmers, and enhancing milk collection and processing infrastructure. The aim is to increase productivity, improve milk quality, and reduce the reliance on milk imports. Achieving self-sufficiency in milk production is crucial for Tanzania's food security, rural development, and economic growth.

**Africa:** The Food and Agriculture Organization (FAO) Food Price Index have risen for the first time in a year. The index, which tracks the monthly changes in international food prices, increased by 1.7% in March 2023 compared to the previous month. The rise in food prices was attributed to higher cereals, vegetable oils, and sugar costs. Weather-related supply disruptions, increased demand, and higher transportation costs contributed to the price hikes. The report also highlights regional variations in food price trends, with African prices remaining generally stable. The FAO emphasizes the need for continued monitoring of food markets to ensure global food security and calls for measures to mitigate the impacts of rising food prices on vulnerable populations.





**NA & SA** **US:** Dairy producers have received some positive financial news as feed prices experienced a significant drop after China canceled orders for U.S. corn. **China** had already been reducing its purchases, leading to a decline in commitments to buy U.S. corn compared to previous years. The high prices of American grains and oilseeds and favourable late-season rains in Brazil have made international buyers turn to South America for their imports.

As a result, U.S. corn exports to foreign markets, excluding China, have reached their second-lowest level in two decades, with sales to Japan declining over 40% from the previous year. Brazil's record-breaking corn and soybean crops have compelled elevators to prioritize overseas sales, attracting importers worldwide.

Although the United States is expected to have higher corn and soybean production this year, slow crop exports may facilitate the shift from the current scarcity to an anticipated abundance in the coming months. However, despite the drop in feed prices, dairy producers may still need to fully benefit from the recent decline, as many have already locked in prices for their on-farm inventories and contracted future purchases. While feed prices remain high, the decrease in feed expenses is still seen as a welcome development for dairy producers facing financial challenges.

**Oceania** **AU:** According to Rabobank's annual Australian Dairy Seasonal Outlook, the Australian dairy sector is projected to have its fourth consecutive profitable year. Factors such as stronger domestic dairy market returns, a weak Australian dollar, and proactive recruitment and retention strategies by dairy producers are expected to contribute to a stable milk price, despite global pressures. Minimum offers for new season milk in Southern Australia are forecasted to range between \$8.50/kgMS and \$9.00/kgMS, representing a potential 10% decrease from the previous year.

The report highlights that while dairy farmers will benefit from lower feed and fertilizer prices, they will still face a high-cost production environment due to inflationary pressures and rising interest rates. Global dairy commodity prices have declined due to increased milk supply, weak import demand from China, and demand rationing in various dairy markets. However, the Australian domestic market is experiencing increased consumer prices, driven by higher farmgate prices and input costs, which will support stable prices for milk producers. The declining milk pool remains a challenge for Australia's dairy supply, with the annual availability of milk for manufacturing expected to fall below six billion litres in the 2022/23 season.

**NZ:** Westpac has trimmed its 2022/23 NZ milk price forecast to \$8.40/kg - towards the bottom end of Fonterra's \$8.20-\$8.80 range - on the back of weakness in global dairy demand. The bank had previously forecast due to slower demand from china.

**Europe** **EU:** Retail food sales in Germany in March were down by 10.3 per cent in real terms, recording the sharpest year-on-year decline since the record keeping began in 1994, the Federal Statistical Office (Destatis) said. "The further significant increase in food prices is likely to be a reason for this," Destatis said. Soaring 22.3 per cent year-on-year, food price inflation in March was around three times as high as the overall inflation rate in Europe's largest economy, reports Xinhua news agency. Dairy products and eggs, in particular, became more expensive, going up almost 35 per cent within a year. Vegetables, bread and cereal products, as well as fish and seafood, also became significantly more expensive, according to official figures. The German government forecasts annual inflation to remain high at 5.9 per cent this year before falling to 2.7 per cent next year.

**UA:** Ukraine's dairy industry to benefit from retaliatory steps to restrict imports from EU states –Director of Dairy Enterprises Union. If Poland and some other EU states impose a ban on the supply of Ukrainian dairy products, then Ukraine's retaliatory measures will be beneficial for the domestic dairy industry, Executive Director of the Union of Dairy Enterprises of Ukraine Arsen Didur has said.

"Look at the statistics. In the first quarter of 2023, Poland supplied dairy products to Ukraine for \$25 million a month and Ukraine for \$5 million. If Ukraine introduces retaliatory measures, then Polish producers will lose these amounts, and we will pick them up and won't have problems with the sale of dairy products within the state," he said in an interview with Interfax-Ukraine. "Look at the statistics. In the first quarter of 2023, Poland supplied dairy products to Ukraine for \$25 million a month and Ukraine for \$5 million. If Ukraine introduces retaliatory measures, then Polish producers will lose these amounts, and we will pick them up and won't have problems with the sale of dairy products within the state," he said in an interview with Interfax-Ukraine. "Look at the statistics. In the first quarter of 2023, Poland supplied dairy products to Ukraine for \$25 million a month and Ukraine for \$5 million. If Ukraine introduces retaliatory measures, then Polish producers will lose these amounts, and we will pick them up and won't have problems with the sale of dairy products within the state," he said in an interview with Interfax-Ukraine.

**EU:** The European Milk Board (EMB) has warned of an impending cost shortfall in the dairy sector. According to the EMB, rising production costs, including feed, energy, and fertilizers, must reflect in milk prices. The organization argues that the current pricing system must provide sufficient returns to cover production costs. The EMB highlights the need for fairer and more sustainable milk pricing mechanisms to ensure the viability of dairy farming in Europe. It calls for market transparency, cost-oriented pricing, and supply management measures to address the cost shortfall issue and provide farmers with an adequate income.

**World** According to HTF Market Intelligence, the Global Dry Dairy Products market to witness a CAGR of 5.35% during forecast period of 2023-2028. The market is segmented by Global Dry Dairy Products Market Breakdown by Application (Nutritional Food, Infant Formulas, Confectionaries, Baked Sweets, Others) by Type (Buttermilk Powder, Whey Powder, Cream Powder, Butter Powder, Ice Cream Mix Powder, Others) and by Geography (North America, South America, Europe, Asia Pacific, MEA). The Dry Dairy Products market size is estimated to increase by USD 46.36 Billion at a CAGR of 5.35% from 2023 to 2028. The report includes historic market data from 2017 to 2022E. Currently, market value is pegged at USD 675.78 Billion.



CONSUMER/SUSTAINABILITY

**US:** Barclays has told beef sector clients they must prevent deforestation in their South American supply chains in a policy document seen by Reuters that toughens the bank's stance. The document said the bank required beef producers to prohibit beef production or primary processing on or from areas in the Amazon cleared or converted after 2008. It also required them to commit to a deforestation-free South American beef supply chain, both direct and indirect, with full traceability, by 2025 in areas at high risk of deforestation, including the Amazon, Brazil's Cerrado and the Chaco biomes. Companies must also monitor, verify and report deforestation-free beef volumes by December 2025 and have a policy commitment to respect human rights across their operations and supply chain. Barclays said it had "no appetite" for providing financial services to soy, beef, palm oil, forestry and timber companies directly involved in illegal logging or related activities, which used fire to clear land or which committed acts of violence or exploitation of local communities.

**US:** Dairy farmers in Utah to sustainable practices and environmental stewardship. It mentions that the US dairy industry has significantly reduced water usage, land requirements, and carbon footprint in milk production over the past decade. The industry is responsible for just 2% of US greenhouse gas emissions and aims to achieve net-zero emissions by 2050. Dairy farmers are actively working on improving manure management to reduce methane emissions, with some partnering with energy companies for renewable energy production. Water conservation is also a priority, with farmers reusing water multiple times and adopting efficient irrigation practices. The article further emphasizes the efforts made by dairy farmers to protect soil and water quality through practices such as double cropping, cover cropping, and low or no-till farming. It highlights the nutrient value of dairy products and the importance of considering their contribution to a balanced diet. The dairy industry's commitment to continuous improvement and sustainability is emphasized, and consumers are encouraged to make informed choices that support local dairy farmers and the planet.

**World:** FAO makes a case for meat, eggs and milk as ‘essential sources of nutrients

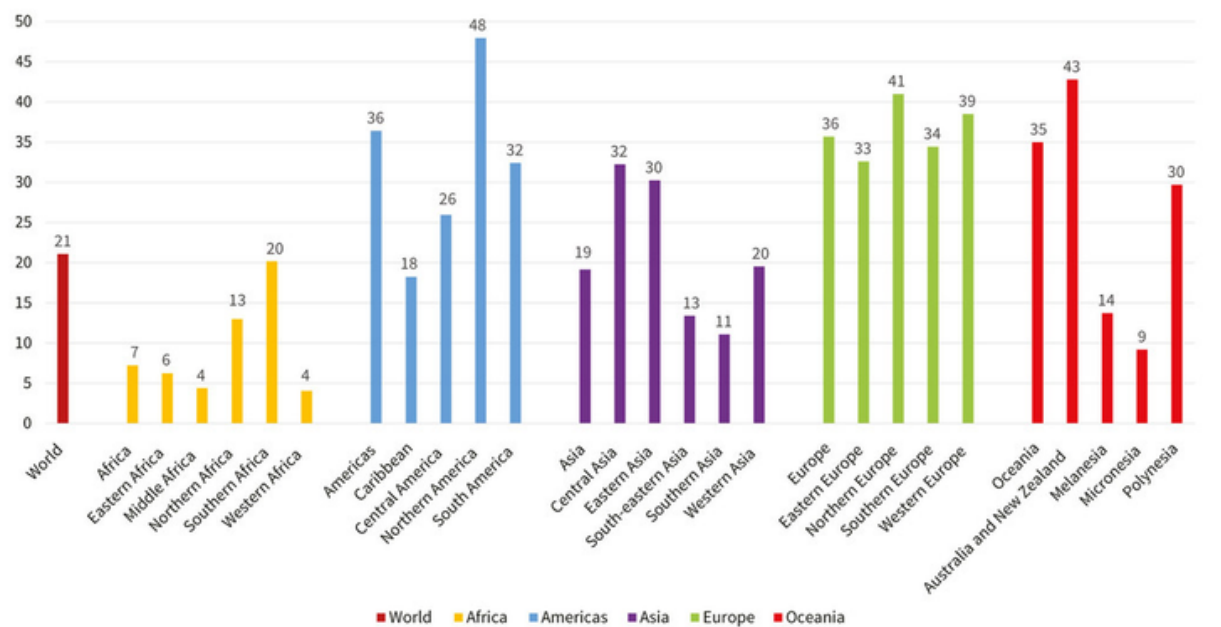
It’s the most comprehensive analysis of the benefits and risks of consuming animal-source foods. It is based on data and evidence from more than 500 scientific papers and some 250 policy documents, said FAO.

Meat, eggs and milk can provide a range of important so-called “macro-nutrients”, such as protein, fats and carbs, and also micro-nutrients that are hard to find in plants, “in the required quality and quantity”, said FAO.

High-quality protein, several essential fatty acids - with iron, calcium, zinc, selenium, Vitamin B12, choline and bioactive compounds like carnitine, creatine, and taurine - are provided by foods from farm and other livestock animals, and have significant health and developmental functions.

FAO notes that iron and vitamin A are among the most common micronutrient deficiencies worldwide, particularly in children and pregnant women. More than one in two preschool children (some 372 million) and 1.2 billion women of childbearing age, according to a study published in the Lancet, suffer from the lack of at least one of three micronutrients: iron, vitamin A or zinc. Three-quarters of these children live in South and East Asia, the Pacific and sub-Saharan Africa.

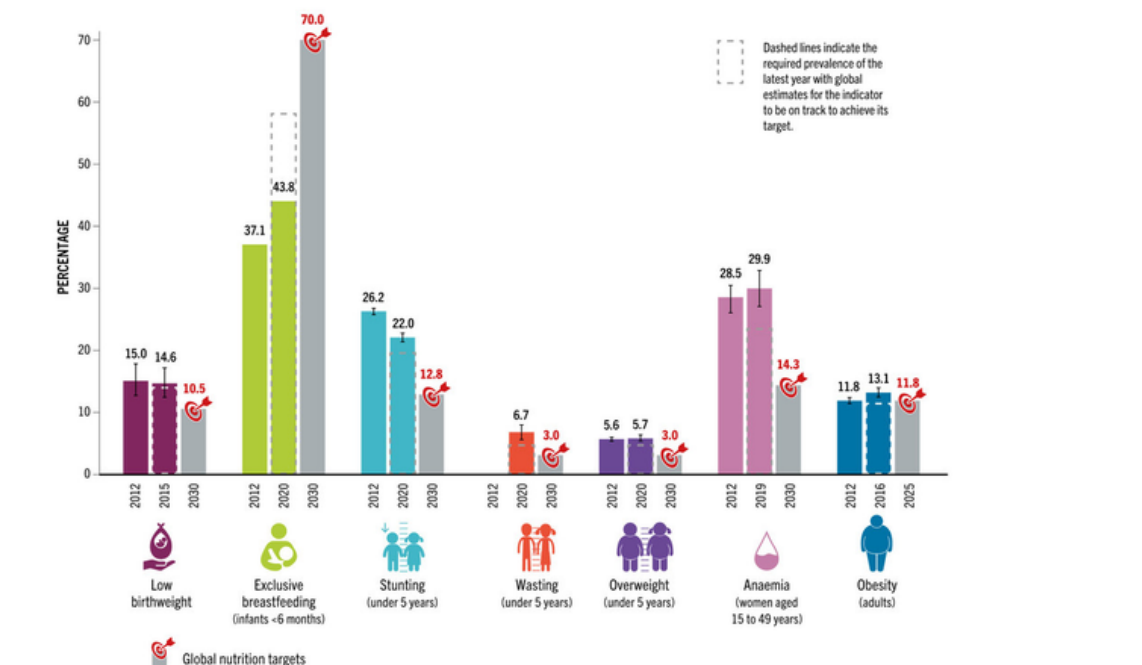
Regional varieties



Not surprisingly, according to the report, consumption of animal-based food from animals varies widely around the world. A person in the Democratic Republic of the Congo (DRC), for example, consumes, on average, only 160 grammes of milk a year, while your average Montenegro resident consumes 338 kilogrammes. Looking at eggs, a person in South Sudan consumes 2g yearly compared to an average of 25kg in Hong Kong. The average person in Burundi consumes just 3kg of meat a year, compared to 136kg for someone living in Hong Kong, said FAO.

Red meat alert

The report clarifies that consuming even low levels of processed red meat can increase mortality risk and chronic disease outcomes, including cardiovascular diseases and colorectal cancer. However, consuming unprocessed red meat in moderate amounts “may have minimal risk “, said FAO, “but is considered safe regarding chronic disease outcomes.” Meanwhile the evidence of any links between milk, eggs and poultry consumption in healthy adults and diseases such as coronary heart disease, strokes, and hypertension is inconclusive (for milk) or non-significant (for eggs and poultry), said FAO.





नुक्कड़

# nukkad

supportive narrative



SATINE, an organic milk brand owned by Chinese dairy company Yili Group, has launched its own virtual human. SATINE previously launched a metaverse experience in January of this year, inviting users to look for digital collectibles on a “digital pasture”. The virtual human, called Jindian, was announced via SATINE’s official Weibo account on May 4.



IN: Regular milk consumption can help prevent low bone density (osteoporosis) and loss of mobility.



नुक्कड़

# nukkad

educate dairy



US: Shake Shack is rolling out new plant-based menu items including dairy-free shakes with AI-designed milk



Remilk has received “first-of-its-kind” approval from the Israeli Ministry of Health (MOH), making it the first animal-free dairy protein company permitted to sell and market its product across Israel.

The open sale of Remilk’s alternative milk, produced via precision fermentation, will “open the door for the introduction of high-quality and nutritious animal-free dairy products,” according to Aviv Wolff, CEO and co-founder of Remilk.



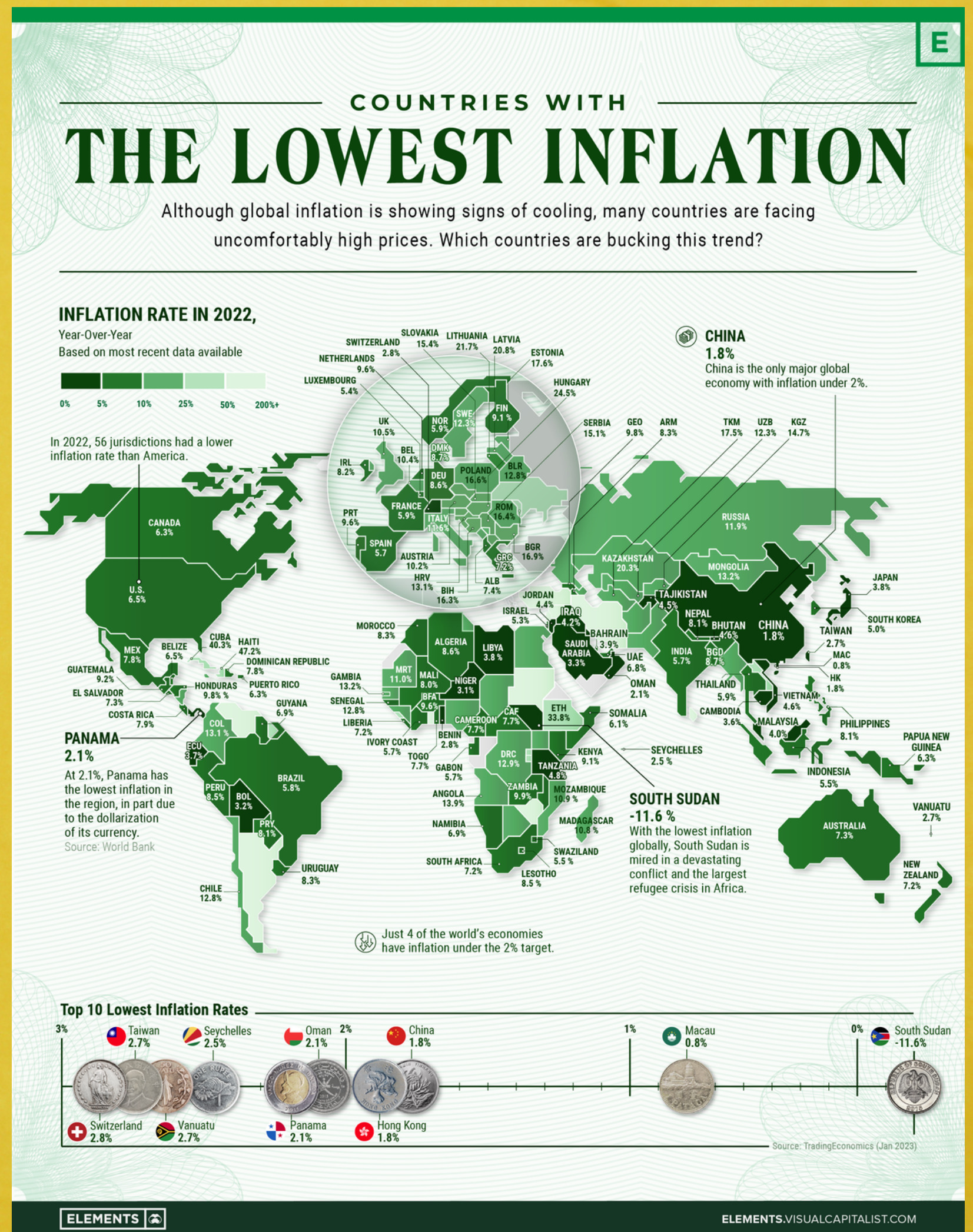
**nukkad**  
global macro

Country	Population
India	1.428 bn
China	1.425 bn
United States	340 mn
Mexico	128.5
Nigeria	223.8 mn
Ethiopia	126.5
Brazil	216.4 mn
Russia	144.4
United Kingdom	67.7
France	64.8
Germany	83.3
Italy	58.9
Spain	47.5
Poland	41
Ukraine	36.7
Australia	26.4
Canada	38.8
Haiti	11.7
Cuba	11.2
Honduras	10.6
Angola	36.7
Ghana	34.1
Mozambique	33.9
Algeria	45.6
Morocco	37.8
Madagascar	36.3
Cote d'Ivoire	28.9
Cameroon	28.6
Mali	23.3
Zambia	20.6
Chad	18.3
Somalia	18.1
Malawi	20.9
Tunisia	12.5
Senegal	17.8
South Sudan	11.1
Tanzania	67.4
South Africa	60.4
Kenya	55.1
Libya	6.9
Colombia	52.1
Argentina	45.8
Peru	34.4
Chile	19.6
Venezuela	28.8
Bolivia	12.4
Paraguay	6.5
Uruguay	3.5
Romania	19.9
Serbia	10.9
Croatia	10.5
Hungary	10.2
Portugal	10.2
Austria	9
Norway	5.5
Sweden	10.4
Finland	5.5
Denmark	5.5
Ireland	4.5
Belgium	11.7
Netherlands	17.4
Switzerland	8.6
Belarus	9.5
Latvia	2.1
Lithuania	3.1
Slovenia	2.1
Slovakia	5.5
Czechia	10.5
Poland	41
Ukraine	36.7
Romania	19.9
Serbia	10.9
Croatia	10.5
Hungary	10.2
Portugal	10.2
Austria	9
Norway	5.5
Sweden	10.4
Finland	5.5
Denmark	5.5
Ireland	4.5
Belgium	11.7
Netherlands	17.4
Switzerland	8.6
Belarus	9.5
Latvia	2.1
Lithuania	3.1
Slovenia	2.1
Slovakia	5.5
Czechia	10.5
Poland	41
Ukraine	36.7
Romania	19.9
Serbia	10.9
Croatia	10.5
Hungary	10.2
Portugal	10.2
Austria	9
Norway	5.5
Sweden	10.4
Finland	5.5
Denmark	5.5
Ireland	4.5
Belgium	11.7
Netherlands	17.4
Switzerland	8.6
Belarus	9.5
Latvia	2.1
Lithuania	3.1
Slovenia	2.1
Slovakia	5.5
Czechia	10.5
Poland	41
Ukraine	36.7
Romania	19.9
Serbia	10.9
Croatia	10.5
Hungary	10.2
Portugal	10.2
Austria	9
Norway	5.5
Sweden	10.4
Finland	5.5
Denmark	5.5
Ireland	4.5
Belgium	11.7
Netherlands	17.4
Switzerland	8.6
Belarus	9.5
Latvia	2.1
Lithuania	3.1
Slovenia	2.1
Slovakia	5.5
Czechia	10.5
Poland	41
Ukraine	36.7
Romania	19.9
Serbia	10.9
Croatia	10.5
Hungary	10.2
Portugal	10.2
Austria	9
Norway	5.5
Sweden	10.4
Finland	5.5
Denmark	5.5
Ireland	4.5
Belgium	11.7
Netherlands	17.4
Switzerland	8.6
Belarus	9.5
Latvia	2.1
Lithuania	3.1
Slovenia	2.1
Slovakia	5.5
Czechia	10.5
Poland	41
Ukraine	36.7
Romania	19.9
Serbia	10.9
Croatia	10.5
Hungary	

Source: UN FPA, 2023

statsofindia.in

World: Recession in different countries.



images from the internet

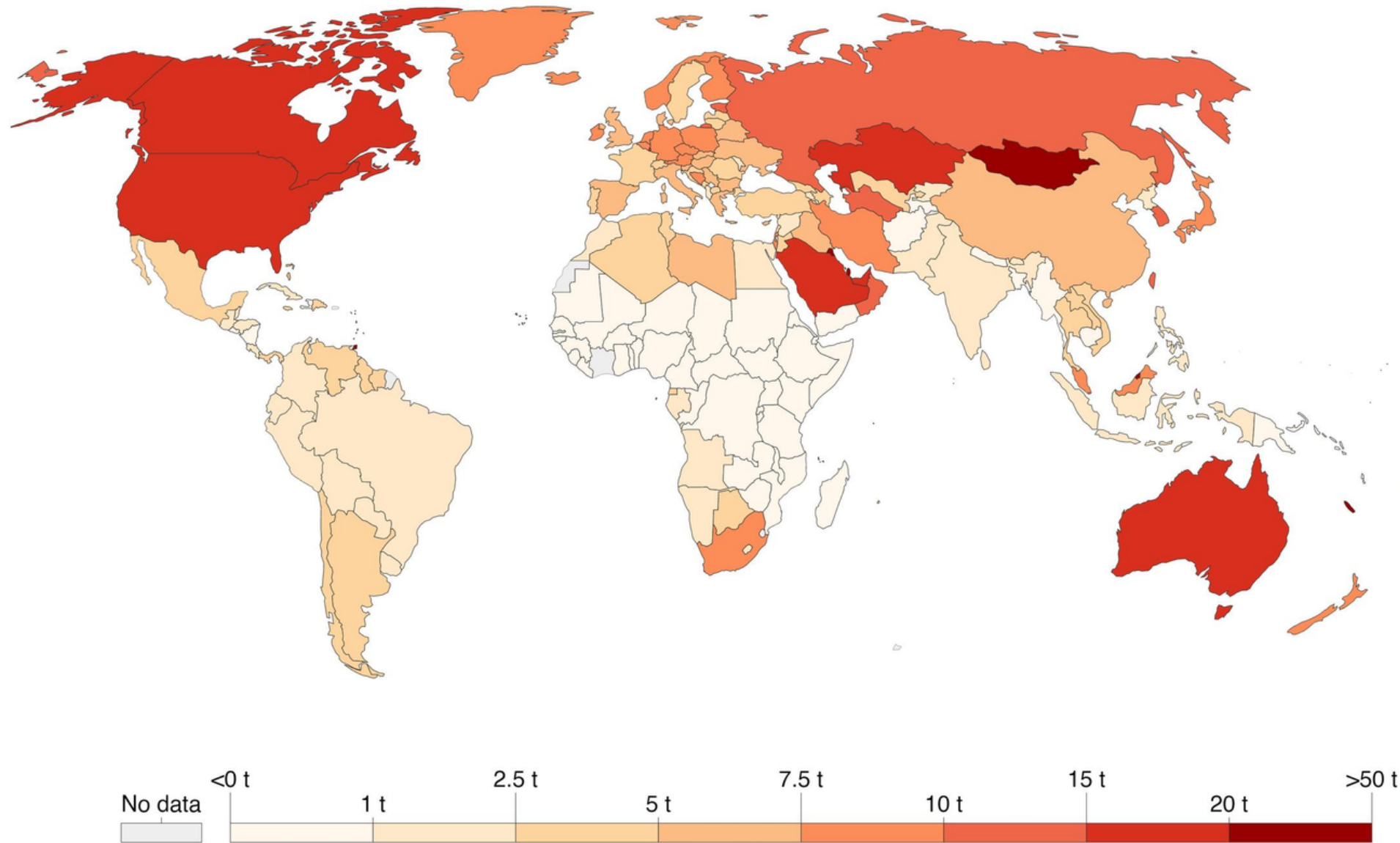


## Per capita CO<sub>2</sub> emissions, 2019

Carbon dioxide (CO<sub>2</sub>) emissions from the burning of fossil fuels for energy and cement production. Land use change is not included.

Carbon dioxide is the most important, though not the only anthropogenic greenhouse gas, leading to climate change

Our World  
in Data



Source: Our World in Data based on the Global Carbon Project; Gapminder & UN

OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/ • CC BY

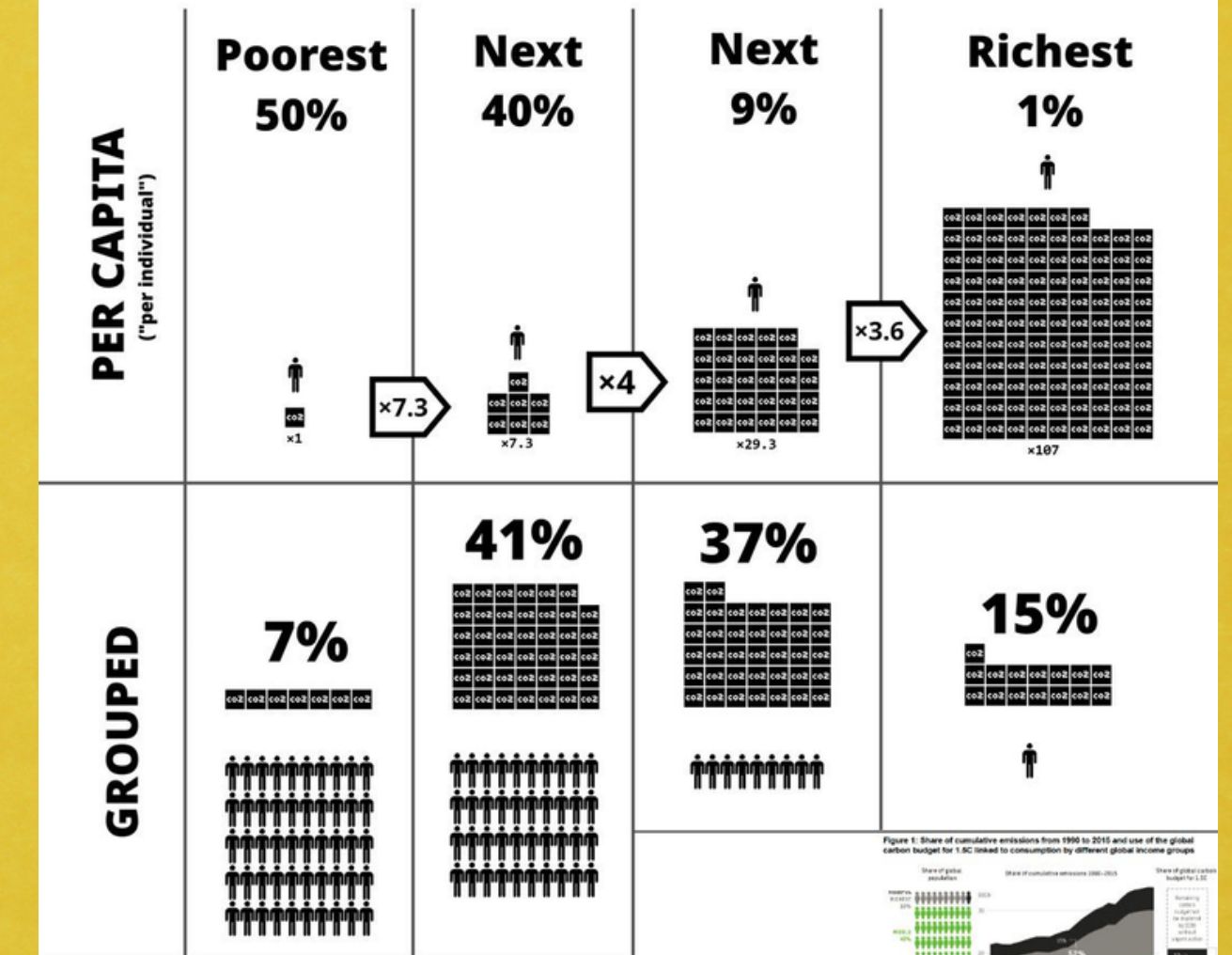
Note: CO<sub>2</sub> emissions are measured on a production basis, meaning they do not correct for emissions embedded in traded goods.

World: Carbon dioxide (per capita) emission - World Map

## CARBON INEQUALITY

### COMPARING INDIVIDUALS versus COMPARING GROUPS

We need to half CO<sub>2</sub> emissions.  
Who should reduce, and how much?



<https://www.oxfam.org/en/research/confronting-carbon-inequality>

World: Carbon inequality



# Enterprise Risk Management (ERM) For Indian Dairy





नुक्कड़

nukkad

annex (country codes)

Afghanistan	AF	Belgium	BE	Cayman Islands (the)	KY	Djibouti	DJ	Gambia (the)	GM	Hungary	HU
Albania	AL	Belize	BZ	Central African Republic (the)	CF	Dominica	DM	Georgia	GE	Iceland	IS
Algeria	DZ	Benin	BJ	Chad	TD	Dominican Republic (the)	DO	Germany	DE	India	IN
American Samoa	AS	Bermuda	BM	Chile	CL	Ecuador	EC	Ghana	GH	Indonesia	ID
Andorra	AD	Bhutan	BT	China	CN	Egypt	EG	Gibraltar	GI	Iran (Islamic Republic of)	IR
Angola	AO	Bolivia (Plurinational State of)	BO	Christmas Island	CX	El Salvador	SV	Greece	GR	Iraq	IQ
Anguilla	AI	Bonaire, Sint Eustatius and Sint Maarten (Dutch part)	BQ	Cocos (Keeling) Islands (the)	CC	Equatorial Guinea	GQ	Greenland	GL	Ireland	IE
Antarctica	AQ	Bosnia and Herzegovina	BA	Colombia	CO	Eritrea	ER	Grenada	GD	Isle of Man	IM
Antigua and Barbuda	AG	Botswana	BW	Comoros (the)	KM	Estonia	EE	Guadeloupe	GP	Israel	IL
Argentina	AR	Bouvet Island	BV	Congo (the Democratic Republic of the)	CD	Eswatini	SZ	Guam	GU	Italy	IT
Armenia	AM	Brazil	BR	Congo (the)	CG	Ethiopia	ET	Guatemala	GT	Jamaica	JM
Aruba	AW	British Indian Ocean Territory	IO	Cook Islands (the)	CK	Falkland Islands (the) [Malvinas]	FK	Guernsey	GG	Japan	JP
Australia	AU	Brunei Darussalam	BN	Costa Rica	CR	Faroe Islands (the)	FO	Guinea	GN	Jordan	JO
Austria	AT	Bulgaria	BG	Croatia	HR	Fiji	FJ	Guinea-Bissau	GW	Kazakhstan	KZ
Azerbaijan	AZ	Burkina Faso	BF	Cuba	CU	Finland	FI	Guyana	GY	Kenya	KE
Bahamas (the)	BS	Burundi	BI	Curaçao	CW	France	FR	Haiti	HT	Kiribati	KI
Bahrain	BH	Cabo Verde	CV	Cyprus	CY	French Guiana	GF	Heard Island and McDonald Islands	HM	Korea (the Democratic People's Republic of)	KP
Bangladesh	BD	Cambodia	KH	Czechia	CZ	French Polynesia	PF	Holy See (the)	VA	Korea (the Republic of)	KR
Barbados	BB	Cameroon	CM	Côte d'Ivoire	CI	French Southern Territories (the)	TF	Honduras	HN	Kuwait	KW
Belarus	BY	Canada	CA	Denmark	DK	Gabon	GA	Hong Kong	HK	Kyrgyzstan	KG
Latvia	LV	Mexico	MX	Norfolk Island	NF	Rwanda	RW	Slovenia	SI	Tokelau	TK
Lebanon	LB	Micronesia (Federated States of)	FM	Northern Mariana Islands (the)	MP	Réunion	RE	Solomon Islands	SB	Tonga	TO
Lesotho	LS	Moldova (the Republic of)	MD	Norway	NO	Saint Barthélemy	BL	Somalia	SO	Trinidad and Tobago	TT
Liberia	LR	Monaco	MC	Oman	OM	Saint Helena, Ascension and Tristan da Cunha	SH	South Africa	ZA	Tunisia	TN
Libya	LY	Mongolia	MN	Pakistan	PK	Saint Kitts and Nevis	KN	South Georgia and the South Sandwich Islands	GS	Turkey	TR
Liechtenstein	LI	Montenegro	ME	Palau	PW	Saint Lucia	LC	South Sudan	SS	Turkmenistan	TM
Lithuania	LT	Montserrat	MS	Palestine, State of	PS	Saint Martin (French part)	MF	Spain	ES	Turks and Caicos Islands (the)	TC
Luxembourg	LU	Morocco	MA	Panama	PA	Saint Pierre and Miquelon	PM	Sri Lanka	LK	Tuvalu	TV
Macao	MO	Mozambique	MZ	Papua New Guinea	PG	Saint Vincent and the Grenadines	VC	Sudan (the)	SD	Uganda	UG
Madagascar	MG	Myanmar	MM	Paraguay	PY	Samoa	WS	Suriname	SR	Ukraine	UA
Malawi	MW	Namibia	NA	Peru	PE	San Marino	SM	Svalbard and Jan Mayen	SJ	United Arab Emirates (the)	AE
Malaysia	MY	Nauru	NR	Philippines (the)	PH	Sao Tome and Principe	ST	Sweden	SE	United Kingdom of Great Britain (the)	GB
Maldives	MV	Nepal	NP	Pitcairn	PN	Saudi Arabia	SA	Switzerland	CH	United States Minor Outlying Islands	UM
Mali	ML	Netherlands (the)	NL	Poland	PL	Senegal	SN	Syrian Arab Republic	SY	United States of America (the)	US
Malta	MT	New Caledonia	NC	Portugal	PT	Serbia	RS	Taiwan (Province of China)	TW	Uruguay	UY
Marshall Islands (the)	MH	New Zealand	NZ	Puerto Rico	PR	Seychelles	SC	Tajikistan	TJ	Uzbekistan	UZ
Martinique	MQ	Nicaragua	NI	Qatar	QA	Sierra Leone	SL	Tanzania, United Republic of	TZ	Vanuatu	VU
Mauritania	MR	Niger (the)	NE	Republic of North Macedonia	MK	Singapore	SG	Thailand	TH	Venezuela (Bolivarian Republic of)	VE
Mauritius	MU	Nigeria	NG	Romania	RO	Sint Maarten (Dutch part)	SX	Timor-Leste	TL	Viet Nam	VN
Mayotte	YT	Niue	NU	Russian Federation (the)	RU	Slovakia	SK	Togo	TG	Virgin Islands (British)	VG
Yemen	YE	Zambia	ZM	Zimbabwe	ZW						

annex (Disclaimer)

The information and opinions in this report have been compiled from publicly available data, and sources believed to be reliable. Jordbrukare India Private Limited (“Jordbrukare”) does not make any representations or warranties about the accuracy, completeness and correctness of the data or information contained herein.

Jordbrukare, its affiliates, their officers, directors and/or employees shall not be responsible for any loss or damage arising to any person from any error in the data or information contained in this report.

This report is not an offer to sell or solicitation to buy any commodities. No information contained herein constitutes a solicitation for the purchase or sale of any commodity, security or investment, nor should it serve as the basis for any investment decision.

Use of the data, information or opinions contained in this report is at the sole risk of the recipient of this report, and any such data, information or opinion should be independently verified.

Jordbrukare, its affiliates, their officers, directors and/or employees may have positions in any of the commodities mentioned in this report (or in any related investment), including positions that may be inconsistent with this report. They may, from time to time, add to or dispose of any such commodities (or investment).

This report may not be reproduced, distributed or published, in whole or in part, by any recipient hereof for any purpose without the prior written approval of Jordbautre.



# contact us



risk management

market intelligence

business consulting

networking

Jordbrukare aspires to fuel growth in the dairy ecosystem by creating an environment that fosters commercial and technological innovation. Jordbrukare recognizes leadership and expertise, facilitates sharing, and employs data science and intelligent computing to prepare today's businesses for tomorrow's opportunities.

[www.jordbrukare.com](http://www.jordbrukare.com)  
[info@jordbrukare.com](mailto:info@jordbrukare.com)