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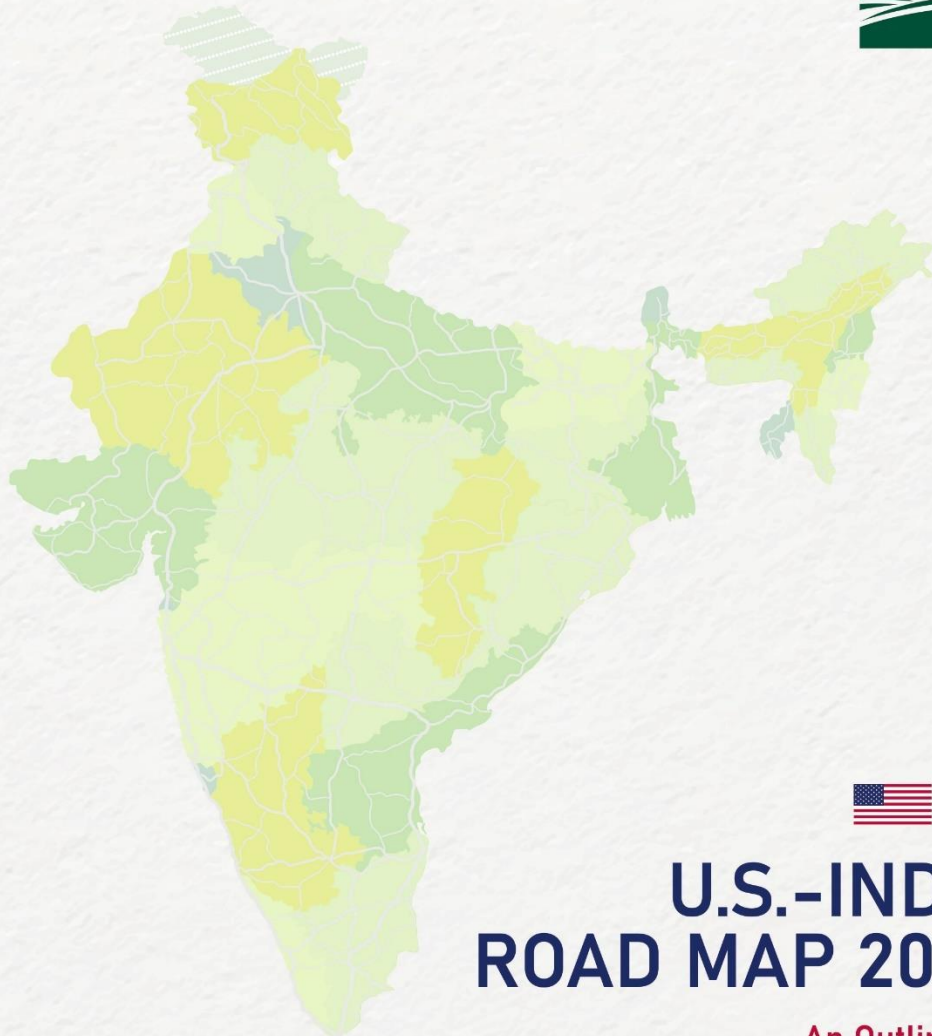
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Prepared By: Joseph Brian Meko- FAS Intern, FAS INDIA TEAM

Approved By: Clay Hamilton

Report Highlights:

India is at a crossroads as it seeks to achieve its goals of becoming a top three economy, a significant supplier of value-added products, and a global political leader in the next 20 years. The road India is pursuing will require significant changes and improvements in its legal system, infrastructure, and domestic support policies, especially for agriculture. While it is not possible to provide a definitive roadmap through 2044, this report provides an overview of challenges and opportunities for both the U.S. and India's agricultural sector. As the situation, regulatory environment, and consumer consumption patterns continue to evolve, updates and additions – building on this report as a base – will follow.



U.S.-INDIA ROAD MAP 2024

**An Outline for
U.S. Food and Agriculture Engagement**

 AgNewDelhi@usda.gov
agmbai@usda.gov

August 12, 2024
U.S. Department of Agriculture - Foreign Agricultural Service
U.S. Embassy, New Delhi



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Executive Summary

India – the world’s most populous country with the highest economic growth rate among large economies – represents a promising, yet underdeveloped, long-term growth market for U.S. agricultural products. To fully unlock this market potential in the coming decades, early and sustained effort will be required.

The United States and India are experiencing their closest, most productive relationship within the past decades. The strong working relationship between President Biden and Prime Minister Modi has led to increased defense cooperation, political coordination, and emerging trade opportunities. Strengthening U.S.-India relations have led to positive outcomes, such as the 2023-2024 tariff reductions on U.S.-origin fruits, nuts, poultry, pulses, and other products. India’s significant economic and population expansion, growing household affluence, and diversifying consumption patterns – increasingly influenced by global cuisines, ingredients, and products – will position India as one of the top export destinations for U.S. agricultural products over the next decades.

India’s current population is estimated at 1.4 billion – defined by a younger, rapidly expanding, and increasingly educated middle class. Demand for high-value products, processed goods and animal-sourced protein such as poultry and pork (Hindu practices limit the consumption of beef), and greater variety of functional and health related products will grow. Despite India being a major global agricultural producer focused on self-sufficiency, agricultural production is predicted to decline as 2044 approaches. Contributing factors include increased extreme and volatile weather conditions, vulnerability to climate change, stagnant agricultural technology, competition for farmland from urban development, and rural flight to urban areas. Continued intensification of environmental and social stressors strongly suggest that India will need to significantly change its import practices to augment domestic production to meet the increasingly varied demands of its population and economy. **U.S. agriculture must proactively position itself as a key player and solution to fill both increased demand and expected deficits.** Traditionally, increased access to Indian markets has been transactional in nature — with the Government of India (GoI) expecting something in return for access to the Indian domestic market. The Foreign Agriculture Service (FAS) is implementing a strategy that includes presenting the GoI with a “win-win” scenario through a lens of agricultural collaboration. Emphasis is put on the role of U.S. imports play in strengthening food and nutritional security, adding job opportunities in downstream sectors like food processing and manufacturing, and generally meeting domestic consumers demands.

A multitude of foreign governments and competitors have already begun investing resources to advantageously position themselves for additional market access. India has recently concluded or

is currently in trade agreement negotiations with several U.S. agriculture competitors including Australia, Canada, European Union (EU), United Arab Emirates (UAE), and United Kingdom (UK). Concurrently, India has recently made efforts to maintain and strengthen strategic trading ties with other players like China and Russia.

While both trends are hurdles to U.S. agricultural exports, new and upcoming trade relations are particularly challenging to growth in U.S. market access. For example, Australian wine and spirits, cotton, tree nuts, and pulses, which have reduced tariffs through the India-Australia Economic Cooperation and Trade Agreement, will add price competitive challenges for similar U.S. products.¹ Likewise, ongoing negotiations with the UK could further disadvantage U.S. spirits if, duties were to be reduced.

Competing trade agreements highlight the stiff competition that will adversely affect the affordability and export growth potential of a large range of U.S. products. **To enhance competitiveness of U.S. products and capitalize on major market potential, an extended timeline of significant and sustained levels of effort – supported by a long-term strategy of relationship development and resource investment – will be needed.**

This report, U.S.-India Roadmap 2044, seeks to lay a framework by outlining the opportunities and challenges for U.S. government officials and exporters in order to realize the full potential of India as the next major export market for U.S. food, beverages, and agricultural products.

India: A Growing 1.4 Billion Person Consumer Market with \$30 Trillion Developed Economy Target by 2047

Population: The World's Most Populous Country

India's population currently exceeds 1.4 billion and is expected to reach over 1.6 billion by 2050. Relative to its Chinese neighbor – whose population is in a downward trend due to lower fertility rates; India has a predominately young population with 43 percent under 25 years of age and is set to experience continued population increase at least until 2064.²

Economy: High Growth GDP; Path to Become a Developed Economy

In 2023, India maintained the highest economic growth rate among all large economies. The World Bank reported growth of India's gross domestic product (GDP) at 7.6 percent in 2023³ with a predicted growth at 6.3 percent for 2024. Growth is predicted to increase to 6.6 percent between FY25 and FY27.⁴ Calculation of GDP follows the value-added method and is the sum of gross value added by all resident producers within the economy plus taxes. However, calculations will not reflect informal or secondary economic activities, potentially underreporting economic growth due to the large informal sector in India.

¹ Das, Sandip. (2024, June 13). India likely to import over 1 MT of chana from Australia. Financial Express. [Link](#)

² World Bank, World Development Indicators. (2023). Population, total – India [Data file]. [Link](#); Silver, S., Huang, C., & Clancy, L. (February 9, 2023). *Key facts as India surpasses China as the world's most populous country*. Pew Research Center. [Link](#); Hertog, S., Gerland, P., & Wilmoth, J. (April 24, 2023). UN DESA Policy Brief No. 153: India overtakes China as the world's most populous country. UN Department of Economic and Social Affairs. [Link](#)

³ World Bank, World Development Indicators. (2023). GDP growth (annual %) – India [Data file]. [Link](#)

⁴ World Bank. *Global Economic Prospects, June 2024 (English)*. Global Economic Prospects Washington, D.C. World Bank Group. [Link](#)

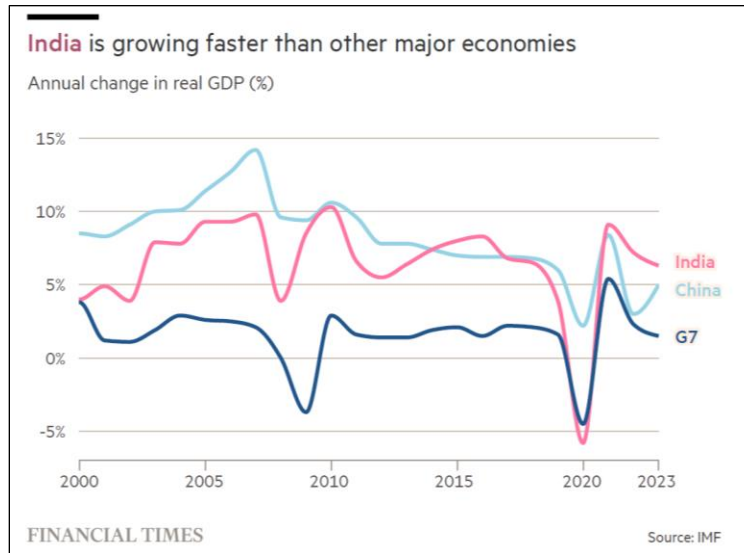


Figure 1: India GDP Growth compared to G7 and China ⁵

Seeking to maintain enhanced economic growth, the Government of India, has launched the Vision India@2047 initiative, aimed to make India a developed nation by their 100th year of independence. The plan calls for continued capital investments in digital and physical infrastructure as well as continued focus on job creation and social welfare. By 2047, NITI Aayog, the Indian Government’s Policy Think Tank, estimates that the Indian economy will increase from \$4 trillion to \$30 trillion.⁶

Concurrent with economic improvement, India is seeing tremendous growth in higher education with 43.3 million students. This is an increase of nearly 2 million students in one year and an additional 7 million increase in college level students (18 percent increase) over the past 5 years.⁷ Following the Covid-19 pandemic, India’s economy recovered early with growth above pre-pandemic levels in Q3 of 2021.⁸ India’s consumer market is already predicted to become the world’s third largest by 2027. Driven by the rising number of middle-to high-income households, growth in India’s household spending per capita will outpace that of other developing Asian countries at a predicted 7.8 percent year-on-year growth. The country’s ongoing urbanization and growing education levels will further boost spending by facilitating access to an expanding range of goods with the explosive growth of digital and physical channels – quick commerce, e-commerce, and increased physical retail presence.⁹

India’s growth continues to be driven by increased public spending and private consumption¹⁰ despite persistent consumer inflation (6.7 percent),¹¹ particularly in food (8.7 percent).¹²

⁵ Khalaf, R., Reed, J., & Parkin B. (December 21st, 2023). *Narendra Modi: ‘Our nation is on the cusp of a take-off’*. Financial Times. [Link](#)

⁶ NITI Aayog. (February 2024). Working Group Report on Crop Husbandry, Agriculture Inputs, Demand & Supply. [Link](#)

⁷ British Council. (July 2024). India releases updated higher education statistics. [Link](#)

⁸ World Bank, World Development Indicators. (2023). India Overview [Data file]. [Link](#)

⁹ BMI: a FitchSolutions Company. (October 2023). India Economy Special Report. [Link](#)

¹⁰ Government of India Ministry of Finance. (January 2023). Economic Survey 2022-23. Department of Economic Affairs. [Link](#)

¹¹ World Bank, World Development Indicators. (2023). India Overview [Data file]. [Link](#)

¹² Das, S., (June 13, 2024). *Food Inflation sticky, heatwaves to keep vegetable prices high*. Financial Express. [Link](#)

India as the Next China?

India should not be viewed as the next China, but rather a uniquely Indian market. Currently, India is the only country with the potential to match the scale of economic growth and demographic changes previously seen in China. India's population is predicted to be double China's by 2100.

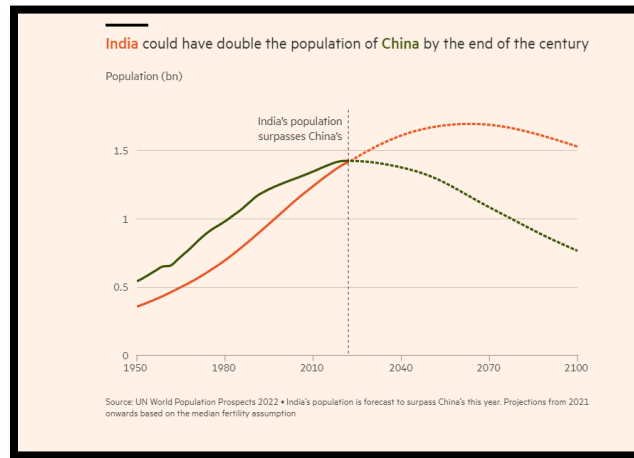


Figure 2: Comparison of Indian and Chinese predicted population growth by 2100 ¹³

Economically, India will maintain strong growth over the next two decades but is expected to fall short comparatively to the absolute size of the Chinese economy – currently five times larger than India's economy (denominated in Indian Rupees – INR). ¹⁴ India, as the world's largest democratically-elected government, cannot easily match the People's Republic of China's highly centralized, command economy and its ability to quickly allocate production resources.

¹³ Borrett, B., Nevitt, C., Clark, D., Rodgers, L., Joiner, S., & Bernard, S. (April 28th, 2023). Can India unlock the potential of its youth? Financial Times. [Link](#)

¹⁴ The Economist. (June 20th, 2024). India should liberate its cities and create more states. [Link](#)

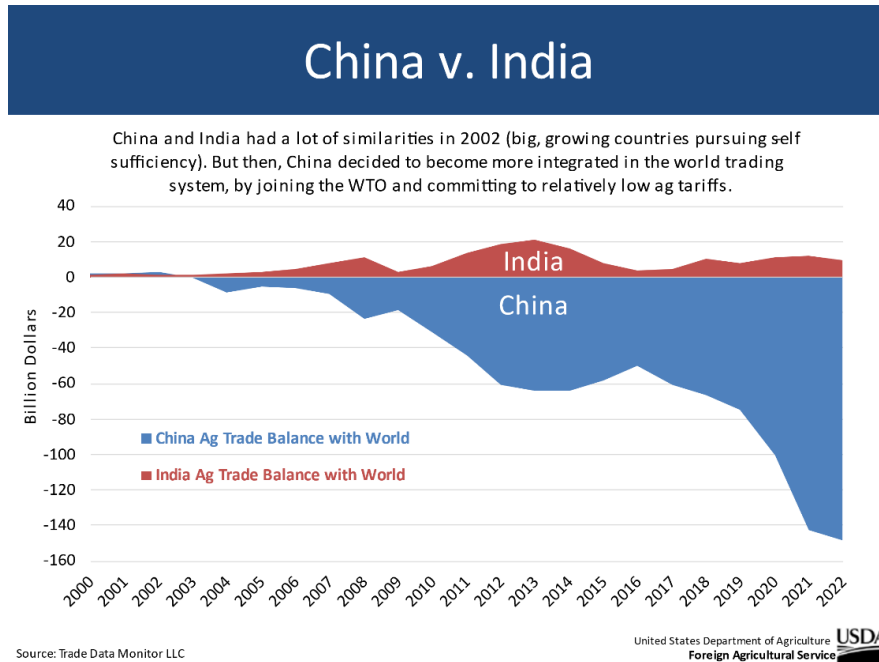


Figure 3: Comparison of Chinese and Indian Ag Trade Balance with the World

The GoI has set ambitious economic and social targets under the Vision India@2047 that will require sustained government investment to maintain economic momentum. The World Bank estimates India will need to invest \$840 billion in urban infrastructure over the next 15 years to meet growing population needs and unlock its economic potential.¹⁵

The GoI is committed to expanding the economy through major investments, including infrastructure programs, skill development, and enhanced technology. Specific goals under the Vision India@2047 include achieving a \$30 trillion economy with a per-capita income of \$18,000 – \$20,000.¹⁶ In the 2023 budget, the government earmarked a record 10 trillion INR (\$122.3 billion) for urban infrastructure such as roads, bridges, and highways. This is in line with the GoI’s National Master Plan with infrastructure investment increased to 3.4 percent of annual GDP, double the average annual earmark of ~1.7 percent of GDP from 2014 -2022.¹⁷ The additional budget aims to increase connectivity across India and fuel low-skilled job creation for the domestic population.

¹⁵ World Bank Group. (November 14, 2022). India’s Urban Infrastructure Needs to Cross \$840B Over Next 15 Years: New World bank Report. [Link](#); Athar, S., White, R., & Goyal, H. *Financing India’s urban infrastructure needs: Constraints to commercial financing and prospects for policy action (English)*. Washington, D.C.: World Bank Group. [Link](#)

¹⁶ LARRDIS. (December 2023). Vision India@2047: Transforming the Nation’s Future. No.17 / RN/Ref/December/2023. [Link](#)

¹⁷ Government of India; Ministry of Information and Broadcasting. (October 13,2022). One year of PM Gati Shakti – National Master Plan Factsheet [Press Release]. [Link](#); Vinayek. N. (February 2024). Tax alerts – Key announcements of interim Budget 2024. EY. [Link](#)

Growth path

What does the future hold? Scenario building for macroeconomic indicators



Indicator	Units	2030	2040	2047
GDP at current prices	₹ trillion	609.04	1,759.79	3,604.94
Per capita GDP at current prices	₹	4,02,008	10,93,037	21,84,812
Exports	\$ trillion	1.58	4.56	8.67
Imports	\$ trillion	1.88	5.92	12.12
Investment	₹ trillion	195.5	591.1	1,273.40
Savings	₹ trillion	207.8	649.4	1,339.70

Source: NITI Aayog

Figure 4: Future Predicted Macroeconomic Indicators¹⁸

In addition to infrastructure expansion, India continues to prioritize domestic self-sufficiency through development of the digital economy, self-reliance in defense and space, fostering green growth, and increasing youth skilling opportunities. U.S. agriculture products and industry have the opportunity to become key supplier of inputs – supporting India’s vision to increase domestic productivity – which the GoI highlights as a key driver for sustaining increased prosperity.¹⁹

Rising Affluence: India’s Growing Middle-Class

India’s middle class – individuals earning between 500,000 – 3 million INR (\$6,000 to \$36,000)²⁰ are the fastest growing segment of the Indian population. They are expected to account for 38 percent of the population by 2031, and 60 percent by 2047 (approximately one billion people).²¹ It is estimated that 25.8 percent of Indian households will reach \$10,000 in annual disposable income in the next four years while middle to high-income household spending is estimated to exceed more than \$3 trillion.²² India has also seen a fivefold increase in its “super-rich” households, those earning more than \$240,000 or 20 million INR annually, up from 1.1 million in 2016 to 1.8 million in 2021. Growth in “super-rich” households is predicted to continue expanding to 9.1 million households by 2030 and 32.7 million household by 2046.²³

¹⁸ Dhoot, V. (October 30, 2023). Government preparing to release Vision India 2047 document. The Hindu. [Link](#)

¹⁹ LARRDIS. (December 2023). Vision India@2047: Transforming the Nation’s Future. No.17 / RN/Ref/December/2023. [Link](#)

²⁰ (The U.S. middle class is roughly assumed (by Pew Trust) at annual income of \$33,500 for a single person, and \$72,500 for a double income family).

²¹ Allianz Partners. (2024). Skift Megatrends 2024. [Link](#)

²² BMI: a FitchSolutions Company. (October 2023). India Economy Special Report. [Link](#)

²³ Chadha, S. (July 6th, 2023). India’s Super Rich Households will rise by 5 Times. Business Standard. [Link](#)

INDIAN INCOME PYRAMID									
Consuming class	Income class (Rs. '000 at 2020-21 prices)	Population (million)			Population (%)			Annual growth (%)	
		2020	2030	2046	2020	2030	2046	2021	2031
		-21	-31(P)	-47(P)	-21	-31	-47	-31	-47
Destitutes	<125	196	79	25	14	5	2	-8.6	-6.9
Aspirers	125– 500	732	568	184	52	37	11	-2.5	-6.8
Middle Class	500-3,000	432	715	1,015	31	47	61	5.2	2.2
Rich	>3,000	56	169	437	4	11	26	11.7	6.1
Total		1,416	1,532	1,661	100	100	100	0.8	0.5

Figure 5 Indian Income Pyramid: The People Research on India’s Consumer Economy (PRICE), an independent, not-for-profit think tank ²⁴

Changing Consumption Patterns: Absolute monthly food expenditure over the past 10 years has doubled for both rural and urban households with a proportional decrease in spending on staple cereals. Spending has shifted towards increased purchase of fruits, vegetables, protein, and packaged foods.²⁵ Demand for non-Indian regional and ethnic food is expanding rapidly. Many consumers are traveling internationally and developing tastes for high-value and healthier products including organic and functional foods. Furthermore, while 81 percent of India’s population limits meat in their diet, only 39 percent identify as vegetarian with consumption habits significantly vary across the country’s 29 states.²⁶

The rapid adoption of quick commerce in India – characterized by delivery times under 3 hours, though as fast as 10-15 minutes – is of note in facilitating expanded access to a diverse array of products for everyday consumers. The Indian quick commerce industry is expected to have a compound annual growth rate of 24.3 percent, expanding to 60.6 million Indian users by 2029. The tendency toward convenience via the digital economy, particularly among younger demographics, will have increasingly significant impact on consumption patterns as the market expands outside major cities.²⁷ Companies should take note of digital channels and expanded reach in tier two and tier three cities as potential new markets.

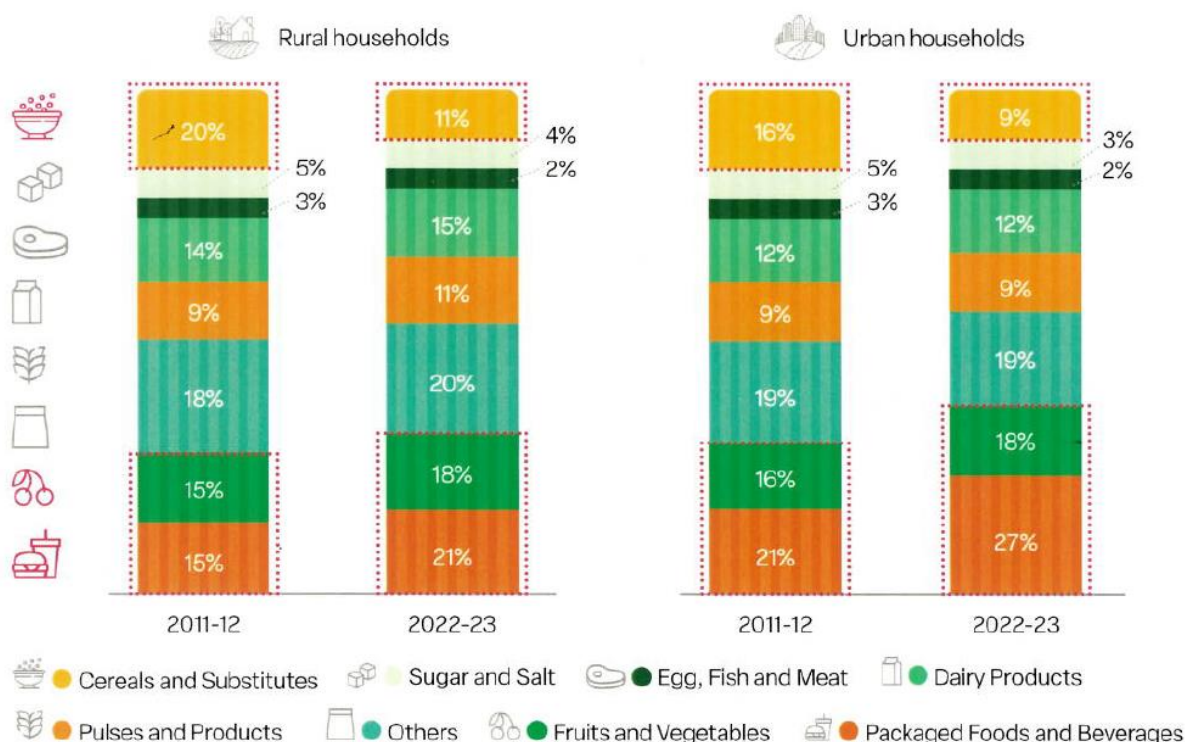
²⁴ Chadha, S. (July 6th, 2023). India’s Super Rich Households will rise by 5 Times. Business Standard. [Link](#)

²⁵ Sustainability and Dietary Change: An Analysis of Indian Food Consumption Patterns. *Indian Journal of Applied Economics and Business* 5(1), 85-105. <https://DOI:10.47509/IJAEB.2023.v05i01.05>; Boston Consulting Group & Federation of Indian Chambers of Commerce and Industry. (June 2024). Nourishing India Sustainably, Ecosystem Actions for Food System Transformation [White Paper].

²⁶ Corichi, M. (July 8th, 2021). Eight-in-ten Indians limit meat in their diets, and four-in-ten consider themselves vegetarian. Pew Research [Link](#)

²⁷ Statista, (2024). Quick Commerce – India. [Link](#); ET Online. (May 6th, 2024). How quick commerce is rewriting the rules of retail in India. The Economic Times. [Link](#)

Shift in monthly household consumption expenditure across food groups in the last ten years



Source: Household Consumption Expenditure Survey: 2022-2023

Figure 6: Shift in Monthly household consumption expenditure across food groups in last ten years, India.²⁸

Workforce Participation: Women in the formal economy, a downward trend.

India's working population is projected to reach 65 percent by 2036, indicating improvement in the number of Indians available for and seeking employment.²⁹ However, unemployment persists as an issue. There are large variations in reported unemployment statistics varying based on sources ranging from 4.2 percent to 7.6 percent in 2023.³⁰ As of June 2024, it was reported that India experienced a sharp increase in unemployment to 9.2 percent from 7 percent in May 2024.³¹ Increases in unemployment indicate a large deficit in jobs remains, particularly for youths.³²

India's female labor force is experiencing a reverse trend with the number of Indian women seeking employment declining overall. Currently, the sectors with the highest percentage of

²⁸ Boston Consulting Group & Federation of Indian Chambers of Commerce and Industry. (June 2024). Nourishing India Sustainably, Ecosystem Actions for Food System Transformation [White Paper].

²⁹ Forbes India. (July 8th, 2024). Unemployment rate in India (2008 to 2024): Current rate, historical trends and more. Forbes India. [Link](#)

³⁰ World Bank, World Development Indicators. (2023). Unemployment, total (% of total labor force) [Data file]. [Link](#); Nisha Gupta, Mahua Bhattacharjee and Anindita Roy Saha (2023); Somayya, N., (April 5th, 2024). Unemployment rate ends high in 2023-24. Centre for monitoring Indian Economy. [Link](#)

³¹ Centre for Monitoring Indian Economy (CMIE). (July 1st, 2024). Unemployment rate rises to 9.2% in June 2024. [Link](#)

³² World Bank, World Development Indicators. (2023). Unemployment, total (% of total labor force) [Data file]. [Link](#); Nisha Gupta, Mahua Bhattacharjee and Anindita Roy Saha (2023).

women workers are agriculture and manufacturing. Over the last thirty years, India’s percentage of female labor force participation has hovered around 25 percent with a recent dip to 24 percent in 2022 – potentially stifling India’s projected economic growth. According to the International Labor Organization (ILO), doubling the percentage of women in the workforce could boost India's growth rate from 6.3 percent to 9 percent and raise the country's GDP by \$700 billion by 2025.³³ However, these estimates likely leave out [millions of Indian women employed in the informal economy](#) or unorganized sectors such as agriculture and domestic work.

Urban-Rural Shift: Increasingly Urbanized Workforce

Roughly one billion Indians still reside in rural areas, with urbanization rates increasing at an estimated 2.3 percent annually.³⁴ The United Nations (UN) projects that a larger number of Indians will live in urban areas than in rural environments by the middle of the 21st century. Drivers of India’s urban migration trend include job availability and incentivization to sell as rising demand for land for non-agricultural increases land value.

Urban areas will continue to have an outsized economic impact on the country. By 2031, over 75 percent of India’s income is expected to come from the country’s cities. By 2035, India’s five largest cities will have economies of comparable to those of today’s middle-income countries.³⁵

Environmental Stressors: High-Impact Threat to Domestic Supply

Indian agriculture faces increased pressure from intensifying environmental stressors due to heavy reliance on rain-fed growing systems. The World Resource Institute classifies India among the 25 countries currently in extreme high-water stress (withdrawal of 80 percent or more of available renewable supply) with both ground and surface water resources being overexploited.³⁶

Climate change, particularly extreme heat and greater frequency of extreme weather events such as flooding, has reduced crop yields, decreased nutritional quality, increased vulnerability to pests and diseases, and led to soil degradation contributing to sustained inflation and food shortages.³⁷ U.S. agriculture can become a key supplier in helping to help India maintain food security and increase agricultural resilience of their agricultural sector in a harsher, increasingly erratic climate.

Government and Governance in India

Federal Government: Modi 3.0

The reelection of Prime Minister Narendra Modi to a historic third term in June 2024, will likely have no drastic shifts in India’s near-term agriculture or trade policy. The Bhartiya Janata Party (BJP) party has retained power and key ministries despite the formation of a coalition

³³ Boben, B., & Rupam, J. (September 20, 2023). Female footprint in India’s workforce. Reuters. [Link](#)

³⁴ World Bank, World Development Indicators. (2023). Rural Population [Data file]. [Link](#); World Bank, World Development Indicators. (2023). Urban population growth (annual %) [Data file]. [Link](#)

³⁵ Varghese, P. (2018). An India Economic Strategy to 2035; Navigating from Potential to Delivery. [Link](#)

³⁶ Kuzma, S., Saccoccia, L., & Chertock, M. (August 16, 2023). 25 Countries Face Extremely High Water Stress. WRI. [Link](#)

³⁷ Ministry of Agriculture & Farmers Welfare, Government of India. (March 21, 2023). Impact of Climate Change on Agriculture [Press Release]. Release ID: 1909206. [Link](#)

government. Aligning with past policy and practices, the GoI is expected to continue prioritizing a self-reliant India (*Atmanirbhar Bharat*) strategy. There is an expected increase in focus on welfare programs for low-income and small landholder farmers, which could be buoyed by aforementioned trade agreements beneficial to Indian industry and consumers. This is further reinforced with the appointment of a new Minister of Agriculture, Shivraj Singh Chouhan, in June 2024.

Federal ministries, and Indian bureaucracy as a whole, are modeled off of and highly influenced by past British colonial rule. Governance decisions and policy initiatives – from domestic policy to bilateral trade agreement – often go through multiple iterations during a complex process that requires an extended timeline. Initial engagement will begin at the lowest level of bureaucracy with input requested from technical experts before being handed off to increasing levels of authority. Chain of command for a ministry is generally as follows: Minister; Secretary; Additional Secretary; Joint Secretary; Director; Undersecretary.

Due to the large, overlapping portfolios and equities of individual ministries, parallel engagement with multiple ministries is necessary. Major policy decisions require interministerial consultation as well as final clearance by the Prime Minister's Office, further extending timelines. Implementation of temporary solutions for specific issues and commodities, though providing short-term relief during the extended policy process, have been highlighted by importers as contributing uncertainty within the Indian market.

State Government: A Diverse Landscape

Like the United States, India's 29 states each carry a uniquely rich culture and history. They can be vastly different in terms of beliefs, consumption patterns, and regulations that can impose additional requirements on products. This is particularly true of agricultural policies and food and beverage regulations.



Figure 7: Map of India with State Boundaries³⁸

A Uniquely Indian Modernization

The diversity of cultures, religions, and histories, uniquely embodied within each of the Indian states, remains strongly embedded within the Indian population. Westernization trends, rather than disrupting, have been adapted to fit Indian sociocultural norms and values. Though increased engagement and travel on a global level has helped develop demand for globalized products and trends, cultural norms continue to operate in parallel with the modernizing

³⁸ Tableau. (2020). India State-Map [Image].

population. Navigating these parallel systems in the various Indian consumer populations, business relations, and government is often difficult but necessary to succeed.

Agricultural Trade Partners and Export Aspirations:

Under the India@2047 plan, the GoI will continue to heavily invest in maintaining India’s economic growth – prioritizing increased trade to achieve a developed, \$30 trillion economy. PM Modi has identified expanding exports of goods and services by \$700 billion to \$1.58 trillion by 2030, doubling Indian export share of global trade to 4 percent.³⁹

In calendar year 2023 (FY23), the top destination for Indian agricultural and related product exports (\$52.2 billion) was the United States (11 percent) followed by China (7 percent), UAE (6 percent), Bangladesh (6 percent), and Vietnam (5 percent) (Table 1).⁴⁰

Conversely, the top origin for importing agricultural and related products into India in FY23 (\$36.9 billion) was Indonesia (16 percent), Brazil (9 percent), Malaysia (8 percent), Argentina (6 percent), and the United States (5 percent) (Table 2).⁴¹

Table 1: India Exports to World (USD)

Partner Country	Rank	BICO – Agricultural and Related Products				
		2019	2020	2021	2022	2023
World		\$ 38,338,124,185.00	\$ 39,702,347,846.00	\$ 51,426,383,388.00	\$ 55,907,862,641.00	\$ 52,268,144,095.00
United States	1	\$ 5,209,109,099.00	\$ 5,218,171,243.00	\$ 6,409,485,091.00	\$ 6,161,631,612.00	\$ 5,652,895,809.00
China	2	\$ 2,859,616,193.00	\$ 3,058,951,032.00	\$ 4,071,577,457.00	\$ 3,827,279,932.00	\$ 3,512,894,712.00
UAE	3	\$ 1,874,861,048.00	\$ 1,908,485,160.00	\$ 2,611,307,534.00	\$ 3,187,045,062.00	\$ 3,151,772,038.00
Bangladesh	4	\$ 1,424,859,206.00	\$ 2,199,751,516.00	\$ 5,146,825,162.00	\$ 4,339,266,984.00	\$ 2,974,263,201.00
Vietnam	5	\$ 2,253,001,599.00	\$ 1,328,305,009.00	\$ 2,317,873,079.00	\$ 2,093,916,351.00	\$ 2,752,400,335.00

Table 2: India Imports from World (USD)

Partner Country	Rank	BICO – Agricultural and Related Products				
		2019	2020	2021	2022	2023
World		\$ 25,058,921,261.00	\$ 23,805,762,002.00	\$ 33,654,474,982.00	\$ 40,457,536,411.00	\$ 36,934,781,991.00
Indonesia	1	\$ 3,492,642,711.00	\$ 4,126,413,469.00	\$ 5,234,594,973.00	\$ 6,946,740,293.00	\$ 5,768,567,703.00
Brazil	2	\$ 731,367,093.00	\$ 1,063,849,883.00	\$ 1,162,271,401.00	\$ 2,770,394,969.00	\$ 3,287,203,800.00
Malaysia	3	\$ 2,855,835,270.00	\$ 1,970,607,342.00	\$ 4,775,043,204.00	\$ 4,650,529,646.00	\$ 3,054,258,328.00
Argentina	4	\$ 1,859,140,160.00	\$ 2,255,633,759.00	\$ 3,287,838,551.00	\$ 3,676,216,827.00	\$ 2,220,895,575.00
United States	5	\$ 2,230,519,026.00	\$ 1,688,897,954.00	\$ 1,808,933,569.00	\$ 2,514,247,162.00	\$ 1,850,347,127.00

³⁹ Singh, S. (April 4th, 2024). Exclusive: Modi sets ambitious India economic goals for probable third term. Reuters. [Link](#)

⁴⁰ TradeDataMonitoring. (2023). India Exports from World, Product Group BICO Agricultural and Related Products, Annual Series.

⁴¹ TradeDataMonitoring. (2023). India Imports from World, Product Group BICO Agricultural and Related Products, Annual Series.

Agriculture Situation and Trends

Agricultural Land Usage in India

India has one of the highest areas of arable land – 55 to 59 percent of total landmass (inclusive of fallow) – with 80 percent utilized for agriculture production (Appendix 1.1). Primary staple crops include rice, wheat, coarse grains, pulses, oilseeds, cotton, and sugarcane (Appendix 1.2). Specialty crops include various fruits and vegetables, spices, tea, coffee, and tobacco. However, India has limited ability to bring additional land under cultivation to meet future needs. Of India’s agricultural land, seven percent is currently fallow while three percent of India’s national land area is classified for pasture use and grazing. Additional land types include forest land, fallow land, barren land, and wasteland.

Currently, there are more than 120 million farms employing over 260 million people.⁴² Land reform efforts in the 1950s, compounded by even-handed inheritance laws, have continued to shrink average farm size. Average landholding has decreased from 2.6 hectares (ha) – approximately 4.6 acres – to 1.1ha since 1960’s with less than 5 percent of the farms having more than 10 hectares.⁴³

Transformation of farmland for nonagricultural activities has accelerated over the past decades. Total arable land has declined by over 5 million hectares in 2020 to less than 180 million hectares. Multiple factors have contributed to this trend such as explosive post-liberalization in the 1990s. In addition, India’s continued economic growth – consisting of a rapidly growing population, industrialization, urbanization, development of real estate, construction, and speculative activity – has also accelerated land use conversion.

The shift of agricultural land for non-agricultural use has accelerated in recent years as infrastructure, industry, and office/residential investment projects seek prime agricultural land with adequate water availability. An increase in rural to urban migration for employment purposes has further encouraged the sale and subsequent conversion of farmland. The sale of land by individual farmers for rural housing or non-agricultural use often goes unreported, leading unofficial sources to estimate higher rates of land use conversion.

Farming Intensification

In the coming decades, continued economic and population growth will further accelerate pressure on agricultural land use. Currently, potentially arable fallow land (8.5%) and culturable wastelands (4 percent) are significantly underproducing due to topography, poor soil conditions, and lack of water resources. Historic usage of resource intensive techniques has further exacerbated issues of declining water resources, soil degradation, and desertification. Expansion of irrigation resources has increased to compensate. In response, crop acreage has gradually shifted from coarse grains, pulses, and oilseeds to rice, wheat, sugarcane, and other high-value crops with fodder crops and pastures acreage shrinking.

⁴² Department of Agriculture & Farmers Welfare, Government of India. (May 2023). Agricultural Statistics at a Glance. [Link](#)

⁴³ The Economist. (July 12, 2018). India’s government claims to subsidize farmers, but actually hurts them. [Link](#)

Shifting consumption patterns have added additional stressors to Indian agricultural production. For example, the demand for animal-sourced protein (dairy and meat) and subsequently animal feed and fodder (soymeal, other oil meals, corn, and other coarse grains) has increased. The shrinking acreage and absence of significant productivity growth in coarse grains and oilseeds has resulted in shortages of animal feed and fodder. The Indian Grassland and Fodder Research Institute estimates an 11.2 percent, 23.4 percent, and 28.9 percent deficit as of December 2022 (green, dry, concentrates).⁴⁴

Lack of Arable Land

With a lack of additional, prime arable land to bring into production, Indian agriculture must respond by improving agriculture productivity, increasing cropping intensity, and bringing more fallow or culturable land under cultivation to meet the growing food demand. There is a major opportunity for U.S. agriculture to fill the production gap as India's changing consumption patterns and environmental stressors will increasingly drive India to supplement growing food, feed, and fodder demand through imports.

Post-Harvest Loss and Food Wastage

Compounding stress on agricultural production, post-harvest loss and food wastage remains an additional obstacle to meeting consumption demands. The UN Food Waste Index 2024 report estimates with medium confidence 78.2 million tons per year of food are wasted at the household level.⁴⁵ Post-harvest food loss is estimated by the GoI to range between 2.9 percent to 7.5 percent for oilseeds, pulses, and cereals. Post-harvest loss for fruits and vegetables are estimated to be as high as 15 percent and 11.6 percent, respectively. For animal-sourced products, post-harvest loss is between 2.3 percent and 8.8 percent for meat, poultry, and fisheries with milk and eggs at 0.9 percent and 6 percent, respectively.⁴⁶

Though experiencing varying rates of loss based on unique characteristics of each crop, continued post-harvest loss is attributable to an extended and fragile supply chain as well as inefficiency in farm-level harvesting techniques (tools, handling, delayed harvest). The extended distance between field to farm, partially due to lack of modern infrastructure, further exacerbates these issues. Of particular note is the lack of cold chain infrastructure such as pre-cooling facilities, integrated packing houses, and refrigerated transportation. Lack of distribution facilities, underutilization during the off-season, and issues of stable electric supply were also noted to be compounding factors. There is opportunity to increase post-harvest mitigation through additional food processing efforts.⁴⁷

⁴⁴ Ministry of Fisheries, Animal Husbandry and Dairying Department, Government of India. (December 2022). Unstarred Question NO. 2021 Fodder Shortage. [Link](#)

⁴⁵ United Nations Environmental Program. (2024) Food Waste Index Report 2024. Think Eat Save: Tracking Progress to Halve Global Food Waste [Technical report]. [Link](#)

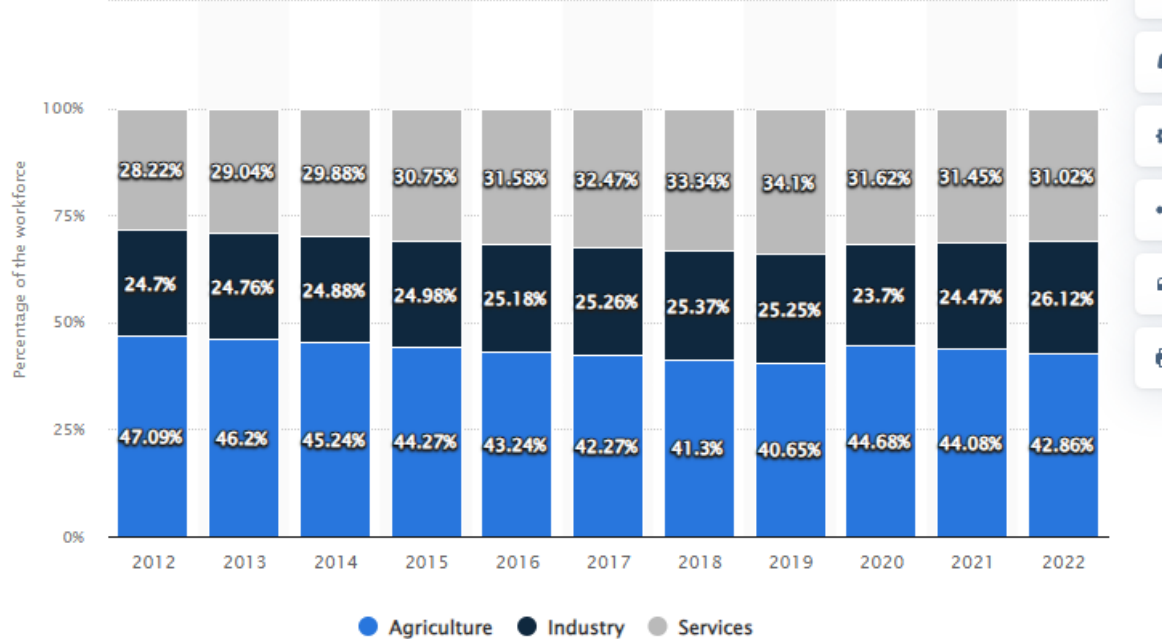
⁴⁶ Ministry of Food Processing Industries, Government of India. (December 20, 2022). Post Harvest Food Loss [Press Release]. [Link](#)

⁴⁷ Jolly, L. & Samuel, D. (2023). India's Post-Harvest Paradox: Exploring Infrastructure Deficits and Opportunities for Food Security. *Commerce & Business Researcher*. 15. 117-132. 10.59640/cbr.v15i1.117-132.

Agriculture Workforce

Farming occupies an outsized role in the Indian economy with agriculture and related sectors accounting for between 18.3 percent to 20.3 percent of GDP between 2020-2023.⁴⁸ Although the agricultural sector's economic contribution has declined from 35 percent to 18.3 percent between 1990-2023, it still remains a major employment sector and large contributor to economic growth.

Data from the National Sample Survey Office (NSSO)'s Periodic Labor Force Survey (PLFS) indicates approximately 45.5 percent of India's workforce worked in the agricultural sector in 2021-2022.⁴⁹ Long-term PLFS data shows that the workforce in India's agricultural sector has fallen from 66 percent (1994-1995) to 42.5 percent (2022). However, there was a slight increase in 2020-2021 due to forced migration of labor to the agricultural sector during the pandemic.



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Figure 8: Distribution of workforce across economic sectors in India 2022⁵⁰

The structural transformation in the economy has caused a shift in the domestic workforce. Low-paid, migrant agricultural workers are increasingly entering into the manufacturing, construction, and service sectors, often in an informal capacity. Uncertain productivity due to depleted land and increased extreme weather, coupled with rising land costs, are prompting farmers to sell their land and move to a town or semi-urban lifestyle.

⁴⁸ Ministry of Agriculture & Farmers Welfare, Government of India. (March 21, 2023). Contribution of Agricultural Sector in GDP [Press Release]. [Link](#)

⁴⁹ Ministry of Labour & Employment, Government of India. (March 27th, 2023). Agriculture has highest estimated percentage distribution of female workers followed by manufacturing as per the Annual Periodic Labour Force Survey (PLFS) Report 2021-22 [Press Release].

⁵⁰ O'Neil, A. (July 4th, 2024). Distribution of workforce across economic sectors in India 2022 [Infographic]. Statista. [Link](#)

Production Trends: Stagnant Growth in Major Commodity Crops

Since gaining independence in 1947, India has rapidly expanded its agricultural sector, achieving increasing levels of food self-sufficiency by the early 1980s. Following this, India's agricultural sector has maintained overall growth with key crop production doubling between 1990s and 2023 (Appendix Table 1.3). The increased affluence and desire to improve diets has fueled the demand for and production of animal-sourced products - including dairy, poultry, and fish. However, the rate of production growth for major food commodities has slowed since 2011, with yield growing between one percent and one and half percent annually for most food crops - except corn, sugarcane, and fruit crops (Appendix Table 1.4). Consequently, production growth has only slightly outpaced population growth (1.2 percent annually) since 2010.

India's current production methods are resource intensive, cereal centric, and regionally biased. India is among the leading producers of field crops, dairy, poultry, and aquaculture products, but lags considerably behind global yields for most cereals except wheat and select pulses (Appendix 1.5). Significant yield gaps exist for many crops across states due to numerous confounding factors, such as the prevalence of subsistence farming, weak irrigation infrastructure, and lack of access to improved production technology, chemical fertilizers, and management techniques.

Over the next two decades, India's agriculture production growth is likely to slow further due to declining size of land holdings and increased vulnerability to climate challenges. There is potential for increasing agricultural productivity in India by improving management practices and adopting new crop varieties. This would require a significant increase in research and development (R&D) investment coupled with a favorable policy environment in the agricultural sector. This dynamic presents an opportunity for U.S. agriculture to support India's domestic productivity and efficiency while gaining increased market share.

India's Agriculture Demand and Supply Projection through 2047-2048

NITI Aayog, the GOI's think tank, has provided projections of India's demand and supply through 2047/2048 when the government plans to achieve developed economy status. Analysis identified significant changes in food preferences across all expenditure classes and within both rural and urban areas. Currently, consumption has already shifted away from staple food grains towards foods such as fruits, vegetables, and animal-sourced, as well as processed foods and beverages. The demand for cereals has declined while demand for pulses and high-value foods has had faster growth compared to other food commodities.⁵¹

Assuming a continuance of economic growth at current rates (6.3 percent), overall food demand is expected to increase at an annual rate of 2.4 percent by 2047/2048. The demand for food grains is estimated to grow to 402 million tons in 2047/2048 – with growth in demand for corn, other coarse grain, and pulses higher compared to rice and wheat. Growth in demand for animal-sourced food is likely to be significantly higher than cereals (Appendix 1.6). Under a higher than estimated income growth scenario, high-value food products will see a stronger demand, making India an increasingly promising market opportunity for a diverse range of U.S. agriculture goods and products.

⁵¹ NITI Aayog. (February 2024). Working Group Report on Crop Husbandry, Agriculture Inputs, Demand & Supply. [Link](#)

Predicted Surplus: Cereal, Sugar, Fruit, and Veg

Rising demand will need to be met through incremental production gains from yield improvements. Gross cropped area is expected to expand at an annual rate of 0.5 percent, driven primarily by higher cropping intensity rather than bringing additional land under cultivation. In the baseline scenario with a 6.3 percent growth rate, projected production will fall short of the demand for most food crops and animal-sourced products, excluding major cereal crops (Rice, Wheat), sugar, and other specific high-value crops (Appendix 1.7).

By 2047-2048, production of food grains will surpass their demand with minimal surpluses primarily for rice, wheat, sugar, fruits, and vegetables. It is predicted this small surplus will be exported. However, imports will be utilized to supplement consumption requirement in years where domestic production is adversely affected by increasingly erratic weather patterns. U.S. agriculture products should position themselves as a key, stable import resource to fill the supply gap.

Potential Deficit: Oilseed, Pulses, Maize, Feed and Fodder

India has limited scope for increasing crop area, and faces low and stagnant yields, in feed crops like corn, other coarse grains (maize grain and sorghum), pulses and oilseeds. India is likely to be forced to augment its domestic oil, pulse, and feed and fodder requirement through imports in the next few years, signaling a larger opportunity for U.S. agriculture to supplement Indian domestic consumption.

For oilseeds and pulses, India is likely to continue to meet most of its vegetable oil and increasing plant-protein needs through imports as there is currently limited possibility of major technological innovation.

India's expanding middle class and changing dietary pattern towards increased protein intake (plant and animal-sourced) will drive demand for pulses, dairy, poultry, livestock meat, and fishery products in next two decades. Becoming increasingly strained, domestic feed and fodder have already experienced price spikes as availability drops. In response, a transition to more commercialized practices – with a focus on nutrient dense feeding to improve productivity – is expected to intensify raw material demand, expanding the current feed and fodder deficit.

Similarly, while production of maize is expected to expand, increasingly demanding non-consumption avenues – industrial, feed, etc.... – will increase competition for domestic supplies. For example, poultry feed (primarily corn-based) and ethanol production are expected to be key drivers. U.S. imports are positioned to be an avenue for addressing these gaps.

Can India Feed Itself: Climate Change as an Adverse Multiplier

Indian agriculture makes a notable contribution to global food production and exports, yet food and nutrition security in the country remains a domestic concern. In 2023, India ranked as low as 111th among the 125 countries for global hunger index, having an estimated 1 in 4 of the global

undernourished population.⁵² As the country continues to develop, social welfare has been consistently woven into government objectives, including the Vision India@2047 plan. However, food production and food security will continue to be stifled by mounting water stress, climate change, and deteriorating soil health in the country.

Water Stress

India is classified by the World Resource Institute as having extremely high-water stress with the World Bank noting the country has over 18 percent of the global population but only four percent of the total freshwater resources.⁵³

India is the largest extractor of groundwater, accounting for 26 percent of global groundwater extraction of which 89 percent is utilized for agricultural irrigation.⁵⁴ India's Central Ground Water Authority (CGWA) estimates that 17 percent of the groundwater blocks in the country are over-exploited, 14 percent semi-critical, and 5 percent critical.⁵⁵ The United Nations University Institute for Environment and Human Security 2023 Interconnected Disaster Risks report notes India is nearing a groundwater tipping point. There is particular concern on a subnational level with India's northwestern region – considered the nation's breadbasket – predicted to experience “critically low groundwater availability by 2025” as the pace of groundwater depletion is expected to accelerate in the short-term.⁵⁶

Of the total agriculture land, 37 percent is irrigated agriculture of which 40 percent is dependent on groundwater. Water demand for agriculture is expected to increase in the wake of growing acreage and cropping intensity (as high as 150 to 190 percent in the breadbasket region of the country). Water stress will be further compounded by India's low water-use efficiency (38 percent) comparatively to other developed countries (50 to 60 percent).⁵⁷

Agriculture and food supply will be negatively affected, long-term, by decreased water availability. Research reports suggest decline of cropping intensity and winter harvest in the country with growing overuse of groundwater, further limiting crop production growth. One viewpoint to factor into overall production estimates is the Global Commission on the Economics of Water report that indicates India is likely to face 16 percent reduction in food supply due to water and heat stress by 2050. This is likely to increase the food insecure population by 50 percent.⁵⁸

Climate Change

Rising global temperature, erratic rainfall, and increased frequency of droughts and flooding will continue to exert additional pressure on India's heavily rain-fed reliant agriculture (67 percent).

⁵²Global Hunger Index. (2023). India. GHI. [Link](#); World Food Programme. (May 2024). India Country Brief. [Link](#)

⁵³ Kuzma, S., Saccoccia, L., & Chertock, M. (August 16, 2023). 25 Countries Face Extremely High Water Stress. WRI. [Link](#)

⁵⁴ UNESCO. (March 2022) UN Water Development Report. [Link](#)

⁵⁵ Central Ground Water Authority, Government of India. (2022). Dynamic Ground Water Resource Assessment. [Link](#)

⁵⁶ United Nations University – Institute for Environment and Human Security (2023). Interconnected Disaster Risks: Risk Tipping Points. Eberle, Caitlyn; O'Connor, Jack; Narvaez, Liliana; Mena Benavides, Melisa; Sebesvari, Zita (authors). Bonn: United Nations University – Institute for Environment and Human Security. DOI: 10.53324/WTWN2495. [Link](#)

⁵⁷ Ministry of Water Resources, Government of India. (2018). Water Use Efficiency [Presentation]. [Link](#)

⁵⁸ Global Commission on the Economics of Water (GCEW). (). The What, Why and How of the World Water Crisis: Global Commission on the Economics of Water Phase 1 Review and Findings. [Link](#)

A report by Overseas Development Institute (ODI), a global think-tank, concluded that flooding in India resulted in \$3 billion in economic damage over the last decade with “declining agriculture productivity, rising sea levels, and negative health outcomes forecast[ed] to cost India three percent of GDP at one degree Celsius of global warming.”⁵⁹ Climate change was also noted to be reducing the pace of poverty reduction and disproportionately affecting economic growth. Indian districts warming the fastest have experienced 56 percent less GDP growth compared to districts that have warmed the slowest.⁶⁰ Climate change, in Indian agriculture, manifests as crop failures, reduced yields, lower nutritional quality, increased vulnerability to pests and diseases, and soil degradation.⁶¹ U.S. agriculture should position itself as a reliable source of production, helping to mitigate future risks of inflation and food shortages in India due to climate change.

Deteriorating Soil Health

Continued use of resource intensive agricultural practices has led to prolonged deterioration of soil in the country. The Government of India’s National Bureau of Soil Survey and Land Use Planning classified 146.8 million hectares (~30 percent) of Indian soil as degraded.⁶² Of degraded soil, 29 percent is lost to sea, 61 percent is transferred from one place to another, and 10 percent is deposited in reservoirs. Factors such as mining, deforestation, overgrazing, monoculture farming, excessive tillage, overuse of chemical fertilizers and pesticides, as well as rapid urbanization account for the growing soil deterioration in the country.⁶³ India’s continued reliance on domestic production for food self-sufficiency will require agricultural intensification to increase production due to limited arable land.

Current intensification practices that require greater manual inputs risk further imperiling soil fertility. With minimized production growth due to increasingly less productive soil, India will need to rely on food imports to meet growing demand. Implementation of adaptive or regenerative solutions may offer a way to mitigate deteriorating soil health. However, adoption on a wide scale is limited by access to capital, knowledge, and technological availability for implementation. There are potential opportunities for the U.S. Agricultural Technology Industry to help bridge this gap.

⁵⁹ Picciariello, A., Colenbrander, S., Bazaz, A., & Roy, R. (2021). The costs of climate change in India: a review of the climate-related risks facing India, and their economic and social costs [Book]. London. [Link](#)

⁶⁰ Picciariello, A., Colenbrander, S., Bazaz, A., & Roy, R. (2021). The costs of climate change in India: a review of the climate-related risks facing India, and their economic and social costs [Book]. London. [Link](#)

⁶¹ Ministry of Agriculture & Farmers Welfare, Government of India. (March 21, 2023). Impact of Climate Change on Agriculture [Press Release]. Release ID: 1909206. [Link](#)

⁶² Tripathi, B. (September 2, 2019). As India Hosts desertification meet, 30% of its land is already degraded. Business Standard. [Link](#)

⁶³ Bhattacharyya, R., Ghosh, B. N., Mishra, P. K., Mandal, B., Rao, C. S., Sarkar, D., ... & Franzluebbers, A. J. (2015). Soil degradation in India: Challenges and potential solutions. *Sustainability*, 7(4), 3528-3570.

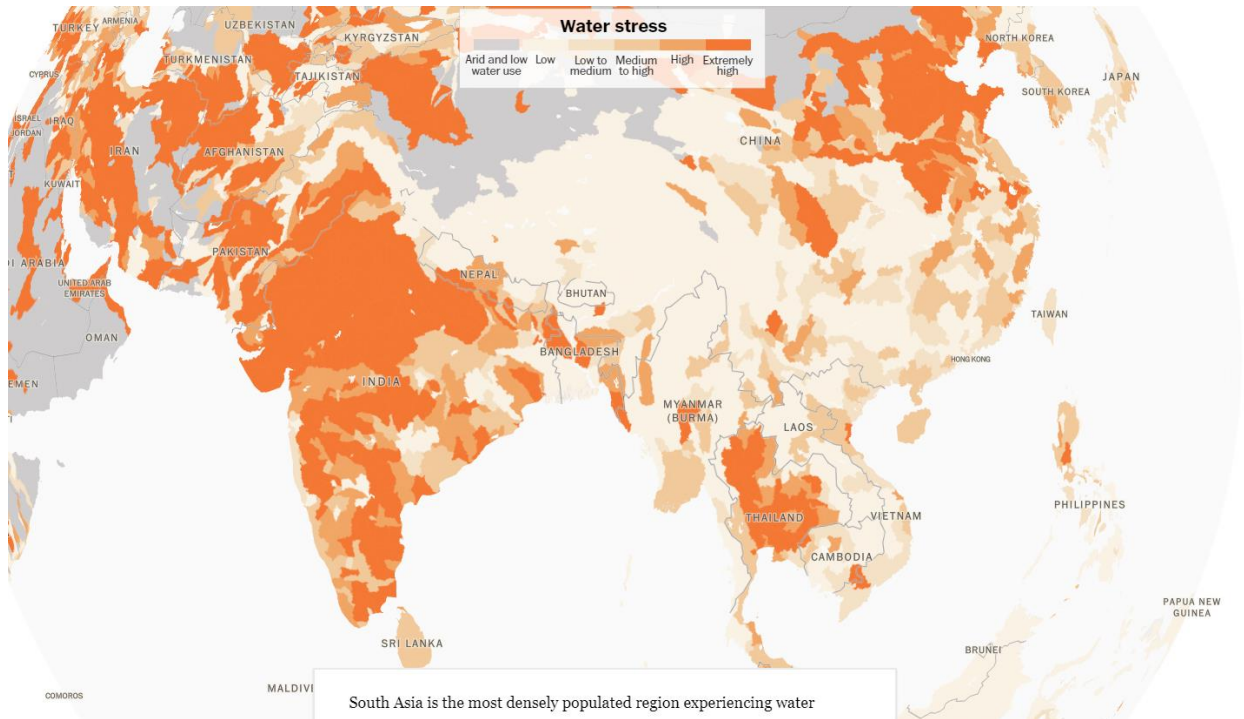


Figure 9: Water Stress Levels in South Asia⁶⁴

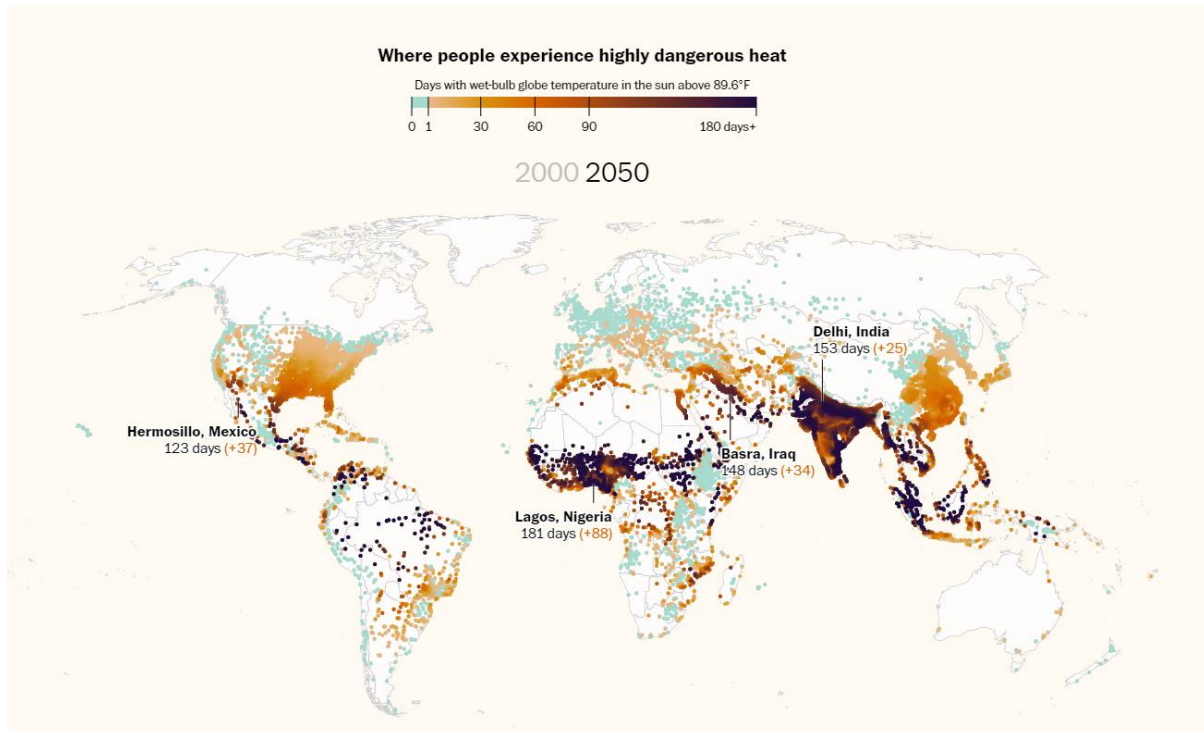


Figure 10: World Map of Days Experiencing Dangerous Heat Temperature (89.6 Degrees Fahrenheit)⁶⁵

⁶⁴ Kuzma, S., Saccoccia, L., & Chertock, M. (August 16, 2023). 25 Countries Face Extremely High Water Stress. WRI. [Link](#)

⁶⁵ Kommenda, N., Osaka, S., Ducroquet S., Penney V. (2023). The Human Limit, Where Dangerous Heat is Surging. Washington Post. [Link](#)

India's Agriculture Policy

Green Revolution: Pursuit of Food Sufficiency and Security

Since independence, India has followed an agriculture policy focused on achieving food sufficiency and national food security. The policy seeks to ensure the well-being of both farmers and consumers. Faced with food shortages in 1960s, the government focused on enhancing crop productivity through improved technologies, seed varieties, fertilizers, pesticides, and irrigation. Significant increase in Indian grain yields, known as 'Green Revolution' of 1960s, were driven by globally supported research and development efforts, increased land cultivation dedicated to cereal crops, and subsidies aimed at driving wide-spread adoption among farmers. In particular, the Government of India (GoI) utilized multiple levers to facilitate the dissemination of the green revolution technology through extension services, subsidizing farm inputs – irrigation, seed, fertilizers, and chemicals — and ensuring 'remunerative' prices through government procurement of rice and wheat.

During the 1950's and 1960's, the GoI introduced several market regulations affecting the sale, stocking, and trading of agricultural commodities to curb market manipulation by private trade. Government funding for agricultural research and extension increased with the founding of many State Agricultural Universities (SAU). Institutional lending to farmers expanded with commercial banks (nationalized from 1969) directed to provide credit to agriculture. Additional agriculture-focused financial institutions were established including the National Bank for Agriculture and Rural Development (NABARD) in 1982 and regional rural banks. Import competition was highly restricted through non-tariff and tariff barriers to allow domestic agricultural production to increase.

Basic cereal crops procured by the government through the 'remunerative' price scheme was distributed at subsidized prices through government fair price shops to ensure national food security by 1980s. In the 1980s and 1990s, yield-enhancing 'green revolution' techniques – supported by input subsidies and support pricing – were expanded to include additional regions and crops. Key agricultural products targeted were pulses, oilseeds, coarse grains, sugarcane, and cotton. These policies have been further extended to the dairy, poultry, other livestock, and fishery sectors with government supporting research for development of improved technologies, disease management, extension services, and marketing support.

Minimum Support Price: Government Expenditures Supporting Farmers through Direct Purchases

India's agriculture policy continues to focus on price support, input subsidy, and technology innovations through government research and development. The government has expanded the price support initiative from rice and wheat in 1960s to 24 crops known as the Minimum Support Price system. The Minimum Support Price (MSP) system attempts to suggest fair pricing for farmers' produce and safeguard farmers from market price fluctuations. The MSP has been steadily increasing due to political considerations rather than market requirements. The government continues to heavily focus on farmers by continuing to subsidize inputs – seeds,

fertilizer, irrigation, and chemicals – and lower interest rates to make capital accessible for improvements.

Every year, the government announces crop MSPs before onset of the *kharif* (autumn) and *rabi* (winter) planting season based on the recommendations of the [Commission for Agricultural Costs and Prices](#) (CACP) with the broad objective of supporting remunerative prices to farmers. These crops include cereals, coarse grains, oilseed, pulses, fiber crops, and sugarcane. The official number of MSP crops referenced by GoI agencies is not uniform and ranges between 22 to 24 commodity crops – due to individual agencies’ varying inclusion of [“other crops” \(Copra, Jute, and Sugarcane\) as well as crop varieties.](#)⁶⁶ [For example, sugarcane prices are technically set under a separate mechanism, the Fair and Remunerative Price \(FRP\), but are often referred colloquially as having an MSP.](#)⁶⁷ [However, it should be noted that sugar itself, as a commodity, does have a set MSP.](#)

Government procurement of MSP crops largely consists of paddy (rice), wheat, and, to a limited extent, coarse grains, pulses, oilseeds, cotton, and jute. The GoI organizes procurement of MSP agricultural commodities through various central and state government parastatals.

The GoI’s MSP procurement of cereal grains is primarily utilized to fulfil obligation under the National Food Security Act and various food security programs – providing five kilograms per month per person of grain that is free of cost to two-thirds of the Indian population among other initiatives. The government will further utilize MSP procured wheat and rice as a tool for market intervention to contain any perceived price escalation of basic food goods.

Between 2015 and 2022, GoI spending on MSP procurement has steadily risen and increasingly been used as a tool to appease small-landowner farmer, a key political voting block (Appendix 2.1). The government expenditure (in Indian Rupees, INR) for MSP procurement, food security programs, and other price support programs has more than doubled since the ruling National Democratic Alliance government, led by PM Modi’s BJP party, came to power in 2014. Of particular note was the significantly increased government expenditure between April 2020 to December 2022 through various Covid-19 relief programs. These programs resulted in depressed domestic prices and improved export competitiveness of Indian rice and wheat during that same period. Several countries, including the United States continue to raise concerns with the market distorting impacts of India’s price support program in the World Trade Organization (WTO).

Agriculture Research and Development Policy

India’s agriculture policy recognizes the key role public sector research organizations play in bringing technological innovation to overcome productivity issues, maximize resource utilization, and support sustainable farming methods. The Indian Council of Agricultural Research (ICAR) and National Agricultural Research System (NARS) aims to develop and provide farmers with improved agricultural technologies. The government has announced several

⁶⁶ Ministry of Agriculture & Farmers Welfare, Government of India. (February 6, 2024). Minimum Support Price for various crops [Press Release]. Release ID: 2003184. [Link](#); Ministry of Agriculture & Farmers Welfare, Government of India. (February 6, 2024). Minimum Support prices (MSP) for Kharif Crops for Marketing Season 2023-2024. Economics and Statistics Division. [Link](#)

⁶⁷ Ministry of Agriculture & Farmers Welfare, Government of India. (February 6, 2024). Cabinet approves ‘Fair and Remunerative Price’ (FRP) of sugarcane payable by sugar factories for sugar season 2024-25 [Press Release]. Release ID: 2007875. [Link](#)

programs to adopt technological interventions to support efficient management of water, strengthen commodities' export value chains, and promote climate-resilient agriculture. In May 2023, the GoI introduced new support for the use of drones in agricultural activities, especially to assess the state of crops and spray fertilizers and pesticides, and for digitizing land records.⁶⁸ These programs encompass a wide range of India's agriculture portfolio including field crops, dairy, livestock, fishery, aquaculture sector, and other associated agriculture sectors.

Trade Policy: Use of Tariff and Non-Tariff Barriers.

The Indian government continues to impose non-tariff and tariffs barriers on agricultural products with aim to simultaneous protect domestic farmers from import competition and maintain domestic supply. Indian import duties, which may be as high as 150 percent for some products, provide a price advantage to Indian famers on the domestic market. Besides tariffs, the government also impose quotas and quantitative restrictions known as Minimum Import Price (MIP) for select products.

MIPs, in addition to other restrictions, are used to control cheaper imports that could adversely affect domestic producers. The GoI similarly uses export restrictions on commodities to encourage sufficient domestic supplies and stabilize prices. Commodities affected by export bans, duties, or permits include various types of rice, wheat, sugar, and related products (e.g. wheat flour) and are subject to change with little prior notice.

History of Indian Import and Export Controls on Major Commodities

Historically, India's agriculture trade policy is characterized by use of tariffs, quotas, subsidies, and other non-tariff measures to protect domestic producers from import competition, support export competitiveness of domestic producers, manage domestic prices, and encourage sufficient domestic supplies. The GoI, under PM Modi, has continued to aggressively pursue a protectionist trade policy for agricultural products – prioritizing the interest of India first, both consumers and producers, with limited concern for impact on global market.

The GoI is likely to continue with their trade interventionist polices in the near future. Unconfirmed report suggests that the government has set up a trade monitoring unit in the Ministry of Commerce advise on policy measures to protect producers and consumers. This unit is tasked with closely following global price movement and India's trade flow of essential food and agricultural commodities. However, domestic stakeholders that rely on imported agricultural commodities are in a position to successfully lobby the government on policy decisions that could have a severe, adverse impact on their businesses and livelihood.

Rice

In 2022 and 2023, the Indian government has imposed a series of restrictive export measures with the aim to ensure adequate availability of rice and combat rising prices in the domestic market. In September 2022, the government imposed an export ban on broken rice and a 20%

⁶⁸ ANI. (March 11, 2024). PM Modi applauds spirit of India's Lakhpati Didis, distributed 1000 Kisan drones to 1000 NaMo Drone Didis. Economic Times. [Link](#)

export duty on milled rice, excluding parboiled and Basmati rice. In July 2023, the GoI imposed an export ban on non-Basmati white rice; and in August 2023, a 20 percent export duty on parboiled rice and minimum export price restriction on long grain Basmati rice. Provisions for exemptions to these bans exist on a country, case-by-case basis, mainly for food security concerns.

India's export restrictions, as the world's leading rice exporter, has led to price escalation and a supply deficit in the global market. In November 2018, the Indian government provided export incentives of five percent for non-Basmati rice shipments from November 2018 to March 2019 in an attempt to bolster lagging exports due to uncompetitive pricing.

Wheat

In May 2022, India announced a ban on wheat exports citing the sudden spike in global wheat prices and the resulting food security risks to India. The export ban was driven by concerns arising from smaller, local MY 2022-2023 (market year) wheat harvests, rising food inflation, and the sharp decline in government MSP wheat procurement. In August of that same year, India extended the export ban to wheat products including wheat flour. Despite the reported record harvest of MY 2023-2024 wheat, the government has extended the export ban on wheat and wheat products till further notice, citing the continued elevated domestic price and food inflation concerns.

Pulses

Historically, India has been one of the leading producers, consumers, and importers of pulses. In the past ten years, India has flip flopped on its interventionist trade policy on pulses. India allowed duty free import of pulses without any quantitative restrictions on any variety of pulses from March 2012 through most of 2017. During this period, the government encouraged domestic pulse production by raising the MSP year-on-year, resulting in significant gain in pulse production area and yield. This influx of pulses resulted in a decline in domestic prices in early 2017 due to a glut in the market.

In March 2017, the Indian government began implementing policies to restrict imports, contain domestic oversupply, and sustain prices for the local producers. During March 2017 through April 2018, the import duties on various pulses were raised from zero percent to between 30 percent and 60 percent. Severe quantitative restrictions (MIPs) were imposed on major pulses like peas, pigeon peas, mung beans, and black gram lentil. These import restrictive measures continued through the first half of 2020. Rising domestic demand coupled with stagnating production started fueling domestic prices by early 2020. Since early 2020, the Indian government has removed the import duty and MIP on pulses until March 2025 to ensure adequate availability within the domestic supply and address food price inflation concerns.⁶⁹

⁶⁹ India GAIN Report [IN2018-3264 : Pulses Market and Policy Changes - A Review of the Last 5 Years](#)

Oilseeds and Edible Oils

Since 2021, the Indian government has lowered edible oil import duties to reduce domestic price volatility and to make edible oil accessible to consumers. In October 2021, the import duties on refined sunflower and refined soyabean oil were reduced from 32.5 percent to 17.5 percent, which was further reduced to 12.5 percent in June 2023. In 2022, the import duty on crude palm oil was reduced from 8.25 percent to 5.5 percent. In March 2023, the import duty on crude soybean and sunflower oil were reduced from 7.5 percent to 5.5 percent.

A separate tariff duty structure is applied to oilseed imports versus edible oils. While less dynamic than movement and changes in edible oils duties, oilseed duties still are affected by GoI's focus on consumer prices and domestic availability. Of particular note is the resumption of GM-origin soybean meal in 2022, though limited by a quota, reflecting sensitivity to the needs for poultry and livestock feed.⁷⁰

Sugar

Over the last three years (2022-2024), the Indian government has implemented export restrictions to ensure sufficient supply of sugar on the domestic market. India set export cap at 6.1 million metric tons (MMT) of sugar (11.1 MMT exports in MY 2021-2022). In June 2022, the government-imposed a ban on sugar exports until the end of October 2022. This was extended to October 2023 and followed by an extension for an indefinite period.

Ethanol

Fearing shortage of domestic molasses for ethanol production on reports of lower sugarcane crop, the government-imposed 50 percent export duty on B and C heavy molasses on January 17, 2024.

Cotton

In February 2021, the government [announced](#) the imposition of an 11 [percent](#) duty on imported cotton and 10 [percent](#) duty on imported cotton waste. With 90 [percent](#) to 95 [percent](#) of imported cotton being processed and re-exported, Indian textile industry was able to pressure the government to [rescind](#) the cotton import duty from April 2022 until September 2022. This was done as a temporary relief to support mills' efforts to achieve their export targets. The duty was reinstated on October 1, 2022, despite opposition from the Textile industry, to appease cotton farmers. In February 2024, the government partially rescinded the import duty on extra-long staple (ELS) cotton with a staple length above 32 millimeters. The import duty of 11 percent on imported cotton below 32 mm – representing more than 95 percent cotton grown in the U.S. – remains in effect.

⁷⁰ India GAIN Report IN2022-0048: Indian government resumes GM-origin soybean meal imports

India Agricultural Policy: Pushback, Opportunities, and Future Expectations

While agricultural production has increased significantly over the last five decades, agricultural policy has come under criticism for promoting unsustainable patterns of production in several states. These include practices of monocropping, indiscriminate use of subsidized fertilizers, and damage to soils, water, and biodiversity from electrical generation for irrigation. Prioritization of rice and wheat has resulted in growing shortages of other cereals, pulses, and oilseeds. Policy is also constraining the ability of the agriculture sector to respond to market demand with rising and widely fluctuating prices of various agriculture produce – particularly animal feed and fodder, pulses, etc.

Recently, programs focusing on environmental sustainability and resilience measures in agriculture – particularly for climate-change adaptation – have been gaining prominence in India. Program focuses include conserving water, altering crop-management practices, investing in technologies for crop production, and developing new cultivars. However, there is potential for further alignment between agricultural support and climate mitigation as well as adaptation efforts. For example, scaling back input subsidies (fertilizer, irrigation water, and electricity) has the potential to directly lower greenhouse gas (GHG) emissions. In addition, policy changes that support alternative crops would provide increased flexibility to adjust production systems to respond to increased climate uncertainty.

Future agriculture policy formulation is predicted to be in line with the India Vision@2047 – focusing on achieving inclusive development through green growth with special focus on continuous technological innovation and data-driven digital infrastructure to support farming. Focus may be put on incorporating new technologies like robotics, precision agriculture, soil mapping software, data analysis matrix, and technological advancement in existing agricultural machinery. Potential areas for policy improvement include larger participation of the private sector in R&D to create value add to agriculture products.

Due to the immense size and importance of Indian agriculture, predicting the future trajectory of Indian agriculture policy will depend on various factors including political environment, economic condition, technological advancement, environmental challenges, and international trade dynamics.

Recent Context: Farm Protest Affect Policy Reform

In September 2020, Prime Minister Modi's government enacted three farm laws designed to liberalize India's agriculture market. However, several farmer unions and opposition parties opposed these laws alleging that they provide advantage to big corporates at the farmer's expense and would end the existing policy of federally assured MSP procurement.⁷¹ In late November 2020, more than forty farmer unions from the state of Punjab, Haryana, and Uttar Pradesh organized under the banner of *Samyukta Kissan Morcha* (Joint Farmer Front). Calling for *Dilli Chalo* (Let's go to Delhi), tens of thousands of union members converged at various border points to Delhi in protest.⁷² After eleven rounds of failed talks between the central

⁷¹ India GAIN Report IN2020-0128: Government of India Passes Historic Agriculture Market Reforms Amid Opposition

⁷² India GAIN Report [IN2020-0184 : India Farmer Demonstrations Continue Against Historic Agricultural Market Reforms](#)

government and farmers, the Supreme Court, on January 12, 2021, intervened to stay the implementation of the farm laws and appointed a committee to investigate farmers' grievances. Though welcoming the stay order, farmers continued their protests calling for a full repeal of the laws.

On November 19, 2021, the Indian government repealed all three bills.⁷³ Following the repeal, the farmer unions put forth various demands for the GoI to meet to end protests. The demands focused on making federal MSP and state procurement of crops a legal right, implementation of the Swaminathan Panel Report to fix MSP at least 50 percent more than weighted average cost of production, and subsidizing diesel prices for agricultural use by 50 percent. On December 9, 2021, the Indian government gave written assurances to the protestors' demands and agreed to set up a committee to review MSP legalization upon which protestors withdrew. In July 2022, the government formed a committee comprising of senior government policy makers, academics, and farmer representatives to explore ways to make MSP system more effective and transparent – falling short of the farmers demand for making MSP a legal right.

In early February 2024, the Samyukta Kisan Morcha (United Farmers Front) and the Kisan Mazdoor Morcha (Farmer Labor Front) from the state of Punjab called for a march to Delhi to press the Indian government to accept their earlier demands, including the enactment of a law to guarantee federal MSP. Annual cost for legal guarantee of an MSP at 50 percent above production cost was estimated to range from 210 billion INR for 16 crops to the 18 trillion INR for 23 crops. GoI's budget estimates total revenue receipt in 2023/2024 at 27 trillion INR with existing food subsidy and market intervention expenses (MSP operation) at 2.2 trillion INR.

While farmers from Haryana and western Uttar Pradesh were active participants in the 2020 protests, they are not playing a significant role in the current actions. The mainly Punjabi farmers have been camping at Shambhu and Khanauri points of Punjab's border since February 13, 2024, where their march was stopped by security personnel. After four rounds of talks with the representatives of the protesting farmer groups, the government has suspended further negotiations. Despite the conclusion of elections in June 2024, farmers have continued protests and are likely to in the future.⁷⁴

The successful 2020-2021 farm protest was a major setback on planned government policy reform in the agriculture sector. The reelection of Prime Minister Modi in June 2024 was marked by a loss of seats and the need to form a coalition government. PM Modi's ruling party, the BJP, has retained key ministries including the Ministry of Agriculture and Farmer's Welfare, now led by Shri Shivraj Singh Chouhan – a strong proponent of welfare programs.

Disappointing election results and BJP's loss of small farmer support indicate no drastic changes in agricultural policy is expected in the short-term. Usage of welfare mechanisms such as direct payments and elevated MSP prices are expected to increase to address pending demands from agitated farmer unions. Policy and positioning of the government will be that of a defender of the farmer's livelihood. Policy, trade, or commodities seen as a threat or counter to the self-sufficiency, "Made in India" aspiration of the governmental will be difficult to pursue without

⁷³ India GAIN Report [IN2021-0149 : Indian Government Withdraws Three Farm Laws Following Months of Protests](#)

⁷⁴ Tribune India. (June 28th, 2024). Farmers gear up to put locks on Ladhawal toll plaza. [Link](#)

additional concessions from the proposing party. As farmers are a key voting bloc, the GoI will continue to aggressively defend India agriculture support policies in the World Trade Organization (WTO).

India's Exports: Global Aspirations

The “Make in India” Strategy⁷⁵ – focusing on investment, innovation, and manufacturing – compliments continued effort to position India as a global leader with domestic agriculture and food processing sector noted for their potential to increase production of high-value goods. India is a net exporter of agricultural products. Top exportable products in 2022 included: rice, shrimp, sugar, carabeef, wheat, cotton, castor oil, and fresh vegetables. Specifically, cotton textiles and apparel exports, valued at over \$43 billion, contributes almost 12 percent of overall export earnings.⁷⁶ Government data indicates over the past 15-year period that the United States, China, United Arab Emirates, Bangladesh, Indonesia, Saudi Arabia, and Vietnam contributed ~44 percent of agriculture export earnings.⁷⁷

The food processing industry's contribution to agricultural exports has grown from 13 percent to 23 percent in the past decade. Ranking seventh worldwide, India's agricultural and processed food exports were worth \$51 billion in 2022-2023.⁷⁸

There is opportunity for improvement within the food processing industry both in terms of scale and organization. Processing is generally fragmented with only basic, minimal value addition to fruits and vegetables being achieved due to a fragmented policy landscape. Currently, the largest, most integrated processed food categories include jams, sauces, biscuits, and other bakery products. Though, these categories continue to see fragmentation and intense price competition due to a high growth market. Other key processed products exported in 2023 included mango pulp, cucumber, and gherkins (prepared and preserved), jaggery and confectionery, cocoa products, and cereal preparations (biscuits, corn flakes, pasta, etc.). Large players like *Pepsi*, *Coca Cola*, *Hershey's*, *Kraft*, *Kellogg's*, *Nestle*, *Mars*, *McCain*, *Danone*, *Ferrero*, *Del Monte* source products from small intermediate processors.

Keys to unlocking further potential of high-value good production – poultry, fisheries, dairy, horticulture—include investment in technology transfer, crops, research institutions, post-harvest technology, and policy alignment. Studies on post-harvest loss conducted by the GoI show fresh fruits, vegetables, and fisheries in India have shown a loss percentage ranging from approximately 8 percent to 18 percent. This is attributed to poor post-harvest management as well as the absence of cold chain and processing facilities. India is unable to export horticultural produce such as citrus, banana, pineapple, papaya, as well as fresh vegetables including potatoes, and okra due to lack of uniformity in quality, standardization, and an inefficient value chain.

⁷⁵ PMIndia. (n.d.) Major Initiatives: Make in India. [Link](#)

⁷⁶ TEXPROCIL. (2023). India's Export Statistics of Cotton Textiles. [Link](#)

⁷⁷ TradeDataMonitoring. (2023). India Exports from World, Product Group BICO Agricultural and Related Products, Annual Series.

⁷⁸ Cyrill, M. (2023). India's Food Processing Industry Sees Over INR 70 billion in Investments Under PLI Scheme. India Briefing. [Link](#)

Additional hurdles to maximizing productivity include streamlined labor laws and ensuring access to land.⁷⁹

For several decades, India has managed exports through a multi-policy, restrictive command and control approach – combining export prohibitions, licensing requirements, quotas, taxes, minimum export prices, and state trading requirements. Enforcement and enforcement intensity of these restriction may be subject to changes, sometimes several times in a year, in response to domestic supply and prices.

The GoI has previously recognized the potential growth of the agricultural processing sector including in initiatives like *Atmanirbhar Bharat* (Self-reliant India) which actively encourages and provides incentives for increased private sector investments. The government launched a production linked incentive (PLI) scheme to incentivize manufacturing, production, and marketing efforts of strong Indian brands.⁸⁰ However, limited interest shown by industries, due to a predisposition to larger firms, selective fund disbursement, and lack of evaluation mechanism has exposed gaps in the implementation.⁸¹

Current complexity of the agricultural and food processing industry landscape denotes both obstacles and large potential for long-term investment in a high growth market. Navigation of bureaucratic delays and a fragmented regulatory regime are notable hurdles faced by companies looking at India as an alternative to China. However, the likely continued government focus on increased domestic job growth and self-sufficiency capability, present an opening for U.S. goods to obtain domestic market share. The “Make in India” initiative focus on Indian high-value goods exports presents an opportunity to utilize U.S. production scale advantage, private investment, and technological transfer infrastructure to become a key supplier of raw goods while maximizing efficiency of domestic partners. As increased climate and production pressures are placed on domestic agriculture, importation of raw goods to sustain high-value processing represents a prime example of a Win-Win agriculture scenario for both India and the United States.

U.S. Agriculture Exports: Opportunities

India presents an exciting underdeveloped, long-term growth opportunity for a diverse range of U.S. exports. These include, but are not limited to, animal-sourced protein, consumer-oriented products, cotton, dairy products, distilled spirits, and wine, ethanol, forest products, fresh and dried fruits, base materials for processing, pulses (lentils and chickpeas), seafood, tree nuts, soybean, soybean products, corn, distiller’s dried grains with solubles (DDGS), as well as turkey and duck. In calendar year 2023, U.S. agricultural exports and related products to India were valued at \$2 billion with tree nuts, predominantly almonds, accounting for half of total exports. Value of trade is expected to grow as the Indian market continues to develop.

⁷⁹ NABARD Consultancy Services. (2022). Study to Determine Post-Harvest Losses on Agri Produces in India. Ministry of Food Processing Industries, Government of India. [Link](#)

⁸⁰ Ministry of Food Processing Industries, Government of India. (2021) Production Linked Incentive Scheme for Food Processing Industry (PLISFPI). [Link](#)

⁸¹ Kumar, A. (2023). PLI Scheme Shows Flaw in Govt’s Approach as Subsidies Fail to Address Demand Shortage. The Wire. [Link](#)

Economic, population, and consumption trends indicate an increasingly developed market with diverse interests that is increasing receptivity to both globalized, and particularly U.S., products. Now the largest country by population, India is currently the world's fifth largest economy and has the fastest economic growth among large economies with projection to be the third largest economy as early as 2027. Rising affluence and per capita income has led to a burgeoning middle-class with increased disposable income. Consumption patterns, particularly preference towards high-value, packaged, and nutritious foods as well as increased animal protein intake indicate greater resource needs to meet domestic consumption.

Projections indicate India's domestic production will result in small export surplus—cereals (Wheat and Rice), sugar, fruits, and vegetable – and deficits – oilseed, pulses, maize, feed & fodder – for agricultural goods by 2047. However, increased resource strain due to environmental and consumption stressors will ultimately require the need for imports to augment domestic supply and production in various years. **U.S. agriculture products and exports must position themselves to become key players in catering to this growing market – championing Win-Win scenarios benefiting both India and U.S.**

Win-Win Agriculture: Benefiting both India and U.S.A. Agriculture and Production

U.S. agriculture and U.S. firms, leveraging factors such as production size and resilience, can be advantageously positioned to become a key supplier and long-term agricultural partner to India – benefiting both parties to create a Win-Win agriculture scenario. FAS and the U.S. government have recognized the excitement and potential of the Indian market with the USDA sending the largest U.S. Trade Mission delegation to India – 47 U.S. agribusiness and farm organizations and 11 State agriculture departments – in April 2024.

Opportunity: Meeting Resource and Dietary Needs in the Face of Increasing Population and Changing Climate

Growing population and environmental stressors are expected to increase pressure on domestic agricultural resource needs. There are ample opportunities for U.S. agriculture to support food security within India and collaborate on climate-smart agriculture practices. For food security purposes – despite predicted growth in production, imports will be needed when domestic production falls short during years with particularly adverse environmental impacts. Partnering with U.S. agriculture to increase resilience of Indian agriculture through research, biotechnology, and technology transfer presents both an opportunity for collaboration to enhance regenerative solutions and develop a market for U.S. Ag-Tech industries.

Indian food security policy currently focuses on caloric intake with malnutrition still a key issue within the population. Exports of U.S. animal protein products (eggs and poultry), and high-quality feed ingredients such as soymeal and corn-based DDGs will be important to help meet current deficiencies for recommended Indian consumption outlined by the Indian Council of Medical Research (ICMR). Currently, ICMR recommends consumption of 10.5 kilos of poultry meat and 180 eggs annually for Indian consumers.⁸² However, both per capita availability of

⁸² Indian Council of Medical Research (ICMR), Government of India. (August 2019). Media report (03 August to 23 August 2019). Department of Health Research – Ministry of Health & Family Welfare. [Link](#)

poultry meat and eggs is not able to meet recommended guidelines. While no official Government of India (GoI) data exists specifically for poultry per capita availability, per capita consumption of India broiler meat is 3.35kg per person per year⁸³ and per capita availability of eggs is estimated at 101 eggs per person per year.⁸⁴ For the vegetarian population of India, the deficit in protein-rich, commonly consumed veg food, particularly the sustained deficit in pulses predicted through 2047, is an opportunity for U.S. to align with Indian consumers to provide alternative protein sources.

In addition to providing U.S. animal-sourced products, opportunities exist for supplying both the increased feed requirements as well as the technology and expertise for increasing India's domestic production of protein as well.

Opportunity: Changing Consumption Patterns, Positive U.S. Quality Perception, Increased Disposable Income and Access

Changing consumption patterns – reduction in cereal grain substituted with increased, fruit, vegetable, animal protein, and packaged food consumption – and increased disposable income will create demand for high-value commodities and luxury goods as availability increases. U.S. products, as a whole, enjoy a reputation for quality among the general population, specifically in relation to food safety.⁸⁵ The rapid advancement in the e-commerce and quick commerce space are expanding availability and product access to the general population. U.S. imports should consider capitalizing on already established, positive U.S. branding and additional distribution avenues to increase market share and develop new markets.

Opportunity: Supplying Base Materials for High-Value Products and Processing

With India continuing to pursue both a strategy of “Make in India” and “Self-Reliant India,” U.S. agriculture will have an opportunity to increasingly support Indian domestic production of value-added products by providing high-quality raw material. Increasing food and agricultural processing have been noted by the GoI as potential contributor to India's continued economic growth. For example, increased focus on attracting textile industry players and increasing textile exports denotes a greater need for high quality cotton. Needs for raw materials for the processing sector will only expand as efficiency and organization increase. With expectations of decelerated growth in India's agriculture sector to 1.8% in 2023-2024,⁸⁶ U.S. agriculture products can increasingly fill the growing demand for large quantity, high quality materials.

Increased competition for raw inputs from growing new and established industries will further push material demand to eclipse domestic production. For example, commercial feeding and ethanol production are increasingly competing with more established Indian export sectors such

⁸³ Ministry of Agriculture & Farmers Welfare, Government of India. (2022). National Action Plan for Egg & Poultry-2022 For Doubling Farmers' Income by 2022. [Link](#)

⁸⁴ Ministry of Fisheries, Animal Husbandry & Dairying, Government of India. (December 22, 2024). Year End Review 2023: Achievement of the Department of Animal Husbandry and Dairying (Ministry of Fisheries, Animal Husbandry and Dairying) [Press Release]. Release ID: 1988609. [Link](#)

⁸⁵ Lee, H. J., Kumar, A., & Kim, Y. K. (2010). Indian consumers' brand equity toward a US and local apparel brand. *Journal of fashion marketing and management: an international journal*, 14(3), 469-485; Foodexport. (2024). India Country Profile. [Link](#)

⁸⁶ ET Spotlight. (January 24th, 2024). Budget 2024: Shitharaman may significantly enhance allocation for farm sector schemes. The Economic Times. [Link](#)

as starch processing. The Indian starch production sector, a major global player, mainly caters to industrial uses (food processing and textiles) and is predicted to have strong growth. With cumulative demand between sectors predicted to outstrip supply, there is an opportunity for U.S. imports to continue to fuel Indian growth across emerging and established sectors.⁸⁷

Opportunities for bulk sectors should not be limited to only basic commodities crops such as wheat, cotton, corn, and soybeans but also include high-value crops such as tree-nuts and fruits. For example, the rising demand for snacking and consumer-oriented food products constitutes a growing potential for U.S. origin ingredients into the Indian market outside the ready-to-eat category. The globalization of food culture, changing consumer preferences, and the influence of Western snacks and confectionery have given rise to a wide range of products using imported ingredients such as almonds, walnuts, pistachios, etc. The Indian ‘*mithai*’ (traditional sweets) sector has witnessed a major transformation to innovative recipes, including these high-quality U.S.-origin products catering to modern tastes. The Indian government’s “Make in India” policy provides an advantage to domestic food manufacturing over imports of high-end consumer-oriented food products.

Opportunity: Supplementing Fodder and Feed Deficits

The shrinking acreage and absence of significant productivity growth in coarse grains and oilseeds in addition to refocus of crops for ethanol production has resulted in shortages of animal feed and fodder. The Indian Grassland and Fodder Research institute estimates there is an 11.24 percent, 23.4 percent, and 28.9 percent deficit as of December 2022 (green, dry, concentrates)⁸⁸ with additional review paper estimating a larger net shortfall of 35.6 percent, 10.5 percent, and 44 percent respectively.⁸⁹

India’s current population of over 300 million bovines – supporting primarily dairy production, 850 million poultry, and other livestock (sheep, goats, etc....) are being adversely affected. Both small landowner farmers and larger commercial operations are grappling with inflated fodder prices.⁹⁰ U.S. agricultural feed and fodder products such as corn, soya, alfalfa hay, DDGS etc.... will see increasing opportunity in being able to supply high quality feed to the dairy and poultry market. This is further supported by the increased trends towards commercialization of dairy and meat operations from traditional, small-landowner practices which currently supply a large amount of milk to the dairy industry.

As India’s dairy, poultry, and meat production are focusing on increased productivity, the demand for nutritionally-dense feed – to sustain increased production while limiting cost– is also expected to grow. The inability for domestic feed and fodder to meet demand and nutritional requirements will help drive the increased need for supplemental raw inputs through trade.

⁸⁷ India GAIN Report IN2024-0016: Grain and Feed Annual - 2024 India

⁸⁸ Ministry of Fisheries, Animal Husbandry and Dairying Department, Government of India. (December 2022). Unstarred Question NO. 2021 Fodder Shortage. [Link](#)

⁸⁹ Singh, D. N., Bohra, J. S., Tyagi, V., Singh, T., Banjara, T. R., & Gupta, G. (2022). A review of India’s fodder production status and opportunities. *Grass and Forage Science*, 77(1), 1-10.

⁹⁰ Jain, S. (March 25th, 2024). Fodder Famines in the Dairy Capital of the World. Foodunfolded. [Link](#)

Opportunity: Increased Demand for U.S. Ethanol for Industrial Use

India's current priority on achieving E20 (blending of 20 percent ethanol and 80 percent gasoline) by 2025 and growing domestic consumption has led to a limitation on sugar exports – India's primary ethanol feedstock – as well as limited the use of sugarcane and derivatives for ethanol production. To meet targets and support industry, the GoI has focused on subsidization of ethanol production utilizing alternative crops, specifically corn, as well as imports.

Specifically, India imports the largest amount of denatured ethanol from the U.S. for medical-grade and industrial uses. Acceleration towards India's long-term ethanol and bio-fuel goals – achieving five percent biodiesel blending by 2030 – will further tighten feedstock and incentivize conversion of land towards cultivation of ethanol feedstock, limiting domestic supply for human consumption and animal feed. Though still a price sensitive market, the continuation of the Made in India initiative and focus on supporting ethanol and ethanol feedstock availability may be a continued growth opportunity for U.S. ethanol and U.S. corn, long-term.

Opportunities: Bulk, Intermediate, and Consumer-Oriented Agriculture Products

Indian markets increasingly have the potential to be a large consumer market of a diverse range of high-quality products. However, India remains a price-sensitive market with U.S. export growth constrained by tariffs. Both bulk and consumer-oriented products have potential for growth as India continues to expand and prioritize export growth.

In Fiscal Year 2023 (FY23), bulk and intermediate products made up 14 percent and 28 percent of U.S.- Indian exports, respectively. Agriculture related products with high potential for U.S. exporters include pulses, cotton, ethanol, forest products, and seafood. Additional U.S. agricultural products include with high potential include feed and fodder, oilseed, soybeans, and DDGS.

In FY23, consumer-oriented products comprised around 61 percent of total U.S. agricultural and related product exports to India. Major consumer-oriented products, consisting of products that are generally ready for final consumption, included tree nuts (\$1 billion), and dairy products (\$39 million). Consumer-oriented products with high potential for U.S. exporters include tree nuts, fresh fruit, dairy products, and processed food and beverages.

Additional details can be found in the FAS - U.S. International Agricultural Trade Report⁹¹ and FAS India Annual Exporter Guides.⁹²

⁹¹ Beckman, A. (January 2024). Opportunities for U.S. Agricultural Products in India. FAS. [Link](#)

⁹² Pandey, S., & Thakur, P. (July 2024). Exporter Guide Annual. FAS. [Link](#)

Figure 11: Top U.S. Agricultural and Related Product Exports to India; Million USD Fiscal Year (Oct-Sep)⁹³

Product	2019	2020	2021	2022	2023
Tree Nuts	776	884	892	1,022	1,005
Cotton	571	155	196	518	237
Ethanol	318	330	199	250	148
Forest Products	55	40	47	80	81
Essential Oils	31	29	33	40	56
Dairy Products	56	47	29	36	39
Other Feeds, Meals & Fodders	12	16	23	28	29
Seafood Products	32	32	51	41	29
Dextrins, Peptones, & Proteins	45	25	32	26	27
Soybeans*	5	43	5	7	26
Agricultural Products	2,112	1,738	1,644	2,416	1,731
Agricultural & Related Products	2,200	1,811	1,742	2,538	1,842

***May include transshipment from Nepal**

U.S. Agriculture Exports: Challenges

U.S. companies seeking to enter or increase market share in Indian markets will need early and sustained, long-term investment to fully capture potential growth over the coming decades. Barriers – including restricted initial market access, fractured regulatory landscape, lack of data, infrastructure limitations, bureaucratic hurdles, protectionist trade policy, and competing free trade agreements – may limit near-term returns and be dissuading compared to other short-term investments. However, lack of near-term investment will significantly stifle future returns and market access. U.S. companies will increasingly be at a disadvantage as international competitors continue to invest resources to advantageously position themselves for capturing significant future market share.

Regulations, labeling and testing requirements around importation of agricultural goods can be time-consuming and discretionary on a national and state level. Stimulating investment in distribution and processing infrastructure, particularly among private sector, has been slow and uneven since 2017. Implementation of tariff and non-tariff barrier follows a protectionist scheme

⁹³ Beckman, A. (January 2024). Opportunities for U.S. Agricultural Products in India. FAS. [Link](#)

and can change rapidly with protection of farmers prioritized in both policy substance and for public perception.

Importers have expressed frustration at discrepancy and limitations in crop data collection, collected on an infrequent timeframe. Indian data has been noted tendency to overstate crop production estimates, complicating forecasting and trade discussions for importers engaging actively with the Indian government.

Furthermore, importers have noted difficulty in getting specific guidance and timely regulatory resolution for issues thereby causing market uncertainty and delaying entry of product. Though modern, the Indian government operation and policy processes rely on a more traditional, top-down model. The approval process for policy changes and requests from trading partners is iterative – going through extended rounds of review and consultation of those with increasing levels of authority. Major policy changes are reviewed by interministerial consultations and often approved by the Prime Minister’s office further extending the implementation timeline.

While utilized, importers have noted that short-term interim solutions, sometimes implemented on short notice during the long review process, create market uncertainty for ongoing and future trade prospects. Overreliance on short-term solutions similarly stifle development of the regulatory framework, timeliness, and trust. Due to the scale at which the government operates, importers have noted frustration with interpretation of guidance at the local level. Ongoing engagement by the U.S. seeks to strengthen the Indian regulatory system by increasing transparency, consistency, and trust.

Some current ministries and ministers have shown willingness to work towards increased agricultural trade at various levels with others still favoring increased domestic protectionism policies. Due to numerous ministries having equities in agriculture and food space, lack of coordination makes engagement with numerous ministries necessary. Progress that has been made on tariff reduction for certain agricultural goods has generally been achieved on a Win-Win basis where India either recognizes the importance of the good in furthering policy goals – increasing export of domestic production, receives something greater value in return, or has internal stakeholder pressure from domestic industry.

Indian Trade Negotiations

India continues to be opportunistic in its trade negotiations leveraging increased focus by international competitors on its potential as a growth market. Competition from countries with or currently negotiating free trade agreements may further disadvantage U.S. companies and goods with agricultural tariffs being as high as 150 percent in some cases. Examples of specific agreements such as Free Trade Agreements, Preferential Trade Agreements, and Multilateral Agreements are included in Appendix 3.1. Of note are recently concluded Free Trade Agreements with Australia and UAE as well as continued negotiations of trade agreements with large competing exporters such as the UK, the European Union, Canada, and Peru as India seeks to expand its sphere of influence while also pursuing advantageous trade deals.

Key Players and Partnerships

Partnerships are key factors in maintaining a competitive advantage in the Indian market. The unique cultural and regulatory environment of each state may necessitate the need to create targeted relationships at both the federal level and state level. Familiarity with the role of government ministries in the supply chain is necessary as multiple ministries has their own unique equities within the Indian agricultural and food market. Industry associations, both national and regional level, may be best positioned for industry to leverage domestic, pre-established contacts. U.S. Foreign Agriculture Service - India is also able to provide guidance and contacts as well.

Appendix

Appendix Table 1.1. India: Land Use Classification 1950-1951 and 2019-2020 (Area in Million Hectares)⁹⁴

Land use classes	1950-1951	2019-2020 ¹
A. Forests	40.48	72.13 (23.5%)
B. Area Not Available for Cultivation	47.52	44.22 (14.4%)
1. Area under non-Agri-cultural uses	9.36	27.64
2. Barren & un-culturable land	38.16	16.58
C. Other Uncultivated land excl fallow land	49.45	25.64 (8.3%)
1. Permanent pastures & other grazing lands	6.68	10.37
2. Land under misc. tree crops & groves	19.83	3.15
3. Culturable waste land	22.94	12.12
D. Fallow land	28.12	26.17 (8.5%)
1. Fallow lands other than current fallows	17.45	11.51
2. Current fallows	10.68	14.66
E. Net area Sown (NAS)	118.75	139.04 (45.3%)
1. Area sown more than once	13.15	65.43
2. Gross Cropped Area (GCA)	131.89	204.47
3. Cropping intensity (GCA/NAS)	111.1%	147.1%
F. Net Irrigated Area	20.85	75.46 (24.6%)
1. Area Irrigated more than once	1.71	36.77
2. Gross Irrigated Area	22.56	112.23
3. % of Gross Irrigated over Gross Cropped	17.1%	53.1%
G. Total Arable Land ²	189.64	180.48 (58.8%)
Geographical Area (Reporting area)	284.32	307.19

Note:

1. Figures in parenthesis is percentage share of reported geographical area in 2019-2020
2. Total agricultural, cultivable, culturable land (Figures in row C2+C3+D+E)

⁹⁴ Ministry of Agriculture and Farmers Welfare, GOI

Appendix Table 1.2. India: Crop-wise Share in Gross Cropped Area in TE 2019-2020⁹⁵

Commodity groups	Crops	Area (Million Hectares)	% share
Cereals	Rice	46.21	22.60
	Wheat	32.76	16.02
	Maize	9.19	4.49
	Barley	0.52	0.26
	Millet	13.22	6.47
	Other Cereals & Millets	0.56	0.27
Pulses	Gram	9.30	4.55
	Pigeon Pea/Tur	4.15	2.03
	Other pulses	13.96	6.83
Sugars	Sugarcane	5.31	2.60
	Others	0.07	0.03
CONDIMENTS & SPICES	Black Pepper	0.21	0.10
	Chilies	0.61	0.30
	Ginger	0.13	0.06
	Turmeric	0.21	0.10
	Betelnuts	0.6	0.32
	Others	2.09	1.03
Fruits	Mango	1.56	0.76
	Citrus Fruits	0.52	0.25
	Banana	0.66	0.32
	Others	1.46	0.71
	Dry Fruits	0.57	0.28
Vegetables	Potato	1.84	0.90
	Onions	1.09	0.53
	Other vegetables	3.65	1.78
	Other Food Crops	0.24	0.12
Oilseeds	Ground-nut	4.83	2.36
	Rape-seed & Mustard	5.98	2.92
	Soya-bean	11.26	5.51
	Others	5.76	2.82
Fibers	Cotton	12.66	6.19
	Jute	0.66	0.32
	Others	0.12	0.06
	Dyes & Tanning Material	0.05	0.02
DRUGS NARCOTICS & PLANTATION CROPS	Tobacco	0.41	0.20
	Tea	0.65	0.32
	Coffee	0.41	0.20
	Rubber	0.70	0.34
	Others	0.86	0.42
Fodder crops	Fodder Crops	8.29	4.06

⁹⁵ Ministry of Agriculture and Farmers Welfare, GOI

	Green Manure Crops	0.08	0.04
	Other Non-food Crops	1.03	0.50
	Total area sown (under all crops)	204.47	100.00

Appendix Table 1.3 Trends in Agricultural Production 1950-1951 to 2022-2023⁹⁶
(Figures in Million Metric tons)

Crop	1950/51- 1955/56 (Annual Average)	1968/69- 1973/74 (Annual Average)	1984/85- 1989/90 (Annual Average)	20001/02- 2006/07 (Annual Average)	2011/12- 2016/17 (Annual Average)	2022- 2023
Wheat	7.9	25.4	48.3	70.2	93.3	110.55
Rice	25.0	41.8	65.1	85.6	106.4	135.755
Maize	2.7	6.1	7.6	14.0	23.9	38.085
Total Pulses	10.1	10.9	12.5	13.3	18.8	26.06
Total Food Grains	63.2	103.0	155.0	202.9	260.3	329.69
Total Oil Seeds	5.5	8.3	13.9	23.2	29.7	41.36
Sugarcane	55.3	128.1	196.4	277	342.1	490.5

Appendix Table 1.4. Annual Growth in Area, Yield, and Production of Food Commodities during Indian Crop Year (July-June) 2011-2012 to 2019-2020⁹⁷

Commodity	Area	Yield	Production
Foodgrains	0.41	1.37	1.79
Cereals	-0.27	1.91	1.63
Rice	0.08	1.5	1.58
Wheat	0.08	1.65	1.74
Nutri-cereals	-2.66	1.31	-1.38
Maize	0.97	2.71	3.71
Pulses	3	1.39	4.43
Fruits	-0.5	3.82	3.3
Vegetables	1.68	0.67	2.36
Oilseeds	-0.53	1.44	0.9
Edible oils	-	-	1.7
Sugarcane	-0.93	1.96	1.01
Sugar & products	-	-	1.2
Milk	-	-	5.87
Eggs	-	-	6.83
Meat	-	-	5.51
Fish	-	-	6.61

⁹⁶ Ministry of Agriculture and Farmers Welfare. [Link](#)

⁹⁷ Ministry of Agriculture and Farmers Welfare. [Link](#)

Appendix Table 1.5. India's Position in World Production in 2019-2020 for Major Crops⁹⁸

Crop	India's rank in world			India Average Yield (Kg/Ha)	Rest of the world (Kg/Ha)
	Area	Production	Yield		
Paddy Rice	1	2	12	4084	5356
Wheat	1	2	11	3440	3732
Sorghum	3	6	18	989	1624
Corn	4	6	19	3006	6038
Chickpea	1	1	13	1142	1036
Pigeon Pea	1	1	16	859	1024
Lentil	2	2	11	847	1487
Groundnut	1	2	9	2063	2047
Soybean	4	5	19	921	2916
Fruits	2	2	12	15090	22638
Vegetables	2	2	16	18373	36266

⁹⁸ FAOSTAT

Appendix Table 1.6. Projected Total Food Demand (Household + Other Demand) in India under Business-as-Usual (BAU) Scenario (million metric ton)⁹⁹

Crops	2019-20	2025-26	2030-31	2035-36	2040-41	2047-48	CGR [#]
Foodgrains	277	303	326	353	371	402	1.39
Cereals	251	272	290	313	327	353	1.27
Rice	103	107	110	111	113	114	0.40
Wheat	100	106	111	115	117	119	0.65
Nutri-cereals	19	20	22	24	26	29	1.60
Maize	27	36	45	60	67	86	4.39
Pulses	26	31	35	40	44	49	2.38
Animal Source-food*	24	32	40	49	59	74	4.29
Eggs	5	7	8	10	12	16	4.32
Meat	7	9	12	14	17	21	4.31
Fish	12	16	20	24	29	37	4.27
Milk	186	243	294	349	405	480	3.56
Vegetables	199	238	270	301	330	365	2.28
Fruits	108	136	160	184	206	233	2.90
Sugar& products	34	37	39	41	43	44	1.05
Edible oil	22	25	27	29	30	31	1.23
Overall	850	1014	1157	1305	1445	1630	2.44

***Inclusive of milks, eggs, and fish but not meat production**

⁹⁹ NITI Aayog. (February 2024). Working Group Report on Crop Husbandry, Agriculture Inputs, Demand & Supply. [Link](#)

Appendix Table 1.7. Forecast of Production under Business-as-Usual (BAU) in India (million metric tons)¹⁰⁰

Crops	Business As Usual (BAU)						
	2019-20	2025-26	2030-31	2035-36	2040-41	2047-48	CGR [#]
Foodgrains	299	332	368	396	417	457	1.58
Cereals	276	305	337	361	378	409	1.47
Rice	119	133	145	150	153	154	0.97
Wheat	108	117	131	141	147	160	1.48
Nutri-cereals	19	17	16	16	15	14	-1.23
Maize	29	36	43	51	62	80	3.84
Pulses	23	27	31	35	40	47	2.70
Animal source food	28	38	46	55	63	74	3.62
Eggs	6	9	11	13	16	19	4.56
Meat	9	10	12	14	15	18	2.71
Fish	14	19	23	27	32	37	3.66
Milk	198	258	308	358	408	478	3.31
Vegetables	188	224	254	285	318	367	2.5
Fruits	102	122	141	161	182	214	2.78
Sugar & products	33.7	42	43	45	49	50	1.50
Edible oils	12	14	15	18	20	24	2.69
Overall	862	1030	1175	1316	1457	1664	2.47

Compound growth rate between 2019-20 and 2047-48.

¹⁰⁰ NITI Aayog. (February 2024). Working Group Report on Crop Husbandry, Agriculture Inputs, Demand & Supply. [Link](#)

Appendix Table 2.1. India: Expenditure on Government Procurement Under MSP and Other Programs¹⁰¹

Figures in Billion Indian National Rupees (INR)

Year/Item	Food Subsidy ¹	Cotton Subsidy ²	Jute Subsidy ³	MIS/PSS Subsidy ⁴	Grand Total	Exchange Rate USD=INR
2014/15	1176.71	0.00	0.00	0.77	1177.49	61.14
2015/16	1394.19	2.60	1.07	0.48	1398.34	65.47
2016/17	1101.73	6.10	0.49	1.46	1109.78	67.09
2017/18	1002.82	1.03	0.47	7.01	1011.32	64.46
2018/19	1013.27	9.24	0.08	14.00	1036.59	69.92
2019/20	1086.88	20.18	0.38	20.05	1127.48	70.89
2020/21	5413.30	6.63	0.30	13.58	5433.81	74.23
2021/22	2889.69	83.32	0.49	22.88	2996.38	74.50
2022/23 (Est)	2068.31	92.43	0.45	15.00	2176.19	82.00

Note:

1. Food Subsidy - subsidy on expenditure incurred in by Food Corporation of India and various state governments in procurement of rice, wheat, and coarse grains from farmers at MSP, its storage and distribution through various food security programs at subsidized prices.
2. Cotton Subsidy- subsidy to Cotton Corporation of India for undertaking MSP procurement operation for cotton
3. Jute Subsidy - subsidy on expenditure incurred by Jute Corporation of India on MSP procurement of Jute
4. Market Intervention Scheme (MIS) - subsidy on expenditure incurred for price support operation of horticultural and other agricultural commodities perishable in nature and not covered under MSP

¹⁰¹ Ministry of Finance, Government of India. Various Documents. [Link](#)

Appendix Table 3.1. Examples of Current and Potential Indian Trade Deals

Indian Nation Trade Deals: Current Examples

- **India-Australia Economic Cooperation and Trade Agreement (IndAus ECTA);**
Effective December 2022
 - Coming into force on December 28th, 2022, this enhanced partnership agreement between Australia and India will boost bilateral trade and investment between the two Indo-Pacific countries. Australia is to provide duty-free access for about 96 percent of Indian goods entering the country upon the agreement's entry into force. Regarding agriculture and food, India is set to reciprocate with tariff reductions on a select number of Australian food and agricultural products, including almonds (shelled and in-shell). The trade deal delivers Australian exporters and Indian buyers a 50% reduction in the tariffs of in-shell and kernel for the first 34,000 tons sold into the market each year. However, dairy products, wheat, rice, corn, other coarse grains, sugar, and bajra (pearl millet) are not included in this agreement.¹⁰²

- **India-UAE CEPA; Effective May 2022**
 - India signed a Comprehensive Economic Cooperation Agreement with the United Arab Emirates (UAE) on February 18, 2022, its first new FTA in a decade. The Comprehensive Economic Partnership Agreement with the UAE came into effect on May 1st, 2022, and is set to reduce tariffs for 80 percent of goods and provide duty-free access to 90 percent of India's exports to the UAE. Tariff reduction or elimination may happen immediately or be phased over a period of 5,7, or 10 years. The agreement is expected to boost annual two-way trade between the FTA partners to \$100 billion within five-years of its adoption, up from the current \$60 billion. The agreement covers areas including goods, services, rules of origin, customs procedures, and government procurement.¹⁰³

- **India-Mauritius CEPA; Effective April 2021**
 - Entering into force in April 2021, the India-Mauritius Comprehensive Economic Cooperation and Partnership Agreement (CECPA) will provide preferred market access for ~615 Mauritian products. This is the first Free Trade Agreement between India and an African country. Tariff reduction or elimination will happen on a per good basis with elimination being reached immediately or phased over a period of 5,7, or 10 years. Key agricultural and agricultural goods negotiated for preferential access to Indian markets includes various fruits and vegetables, seafood (7000 Tons of Canned Tuna at 0 percent), flowers, specialty sugar (40,000 tons at 10 percent), and alcoholic beverages including 2M liters of beer at

¹⁰² Ministry of Commerce, Government of India. (2022). IndAus ECTA. [Link](#)

¹⁰³ Ministry of Commerce, Government of India. (2022). India-UAE CECA. [Link](#); PWC. (May 23rd, 2022). The UAE-India Comprehensive Economic Partnership Agreement (CEPA) enters into force. [Link](#)

25 percent, 1.5M liters of rum at 50 percent, and 5000 liters of fruit wine at 50 percent.¹⁰⁴

- **India-Malaysia CECA; Effective July 2011**
 - Signed in February 2011 and coming into effect that July, the India – Malaysia Comprehensive Economic Cooperation Agreement is a “value-add[ed]” benefits to the wider ASEAN Trade in Goods agreement. Malaysia was reportedly given tariff concessions on 76 items including fruits, coca, and synthetic textiles. As of 2024, it was reported in the media that the Indian government may be looking to further fortify bilateral ties and address trade deficits, targeting a \$25 billion trade volume. This is further supported by the recent revival of the India-Malaysia Joint Commission Meeting. Current exports from Malaysia to India in 2022 comprised of Animal and vegetable fats and oils, cleavage products (\$3.6 billion), Mineral fuels, oils, distillation products (\$1.6 billion), Electrical and electronic equipment (\$1.5 billion), Machinery, nuclear reactors, boilers (\$828.7 million), Organic chemicals (\$684.4 million), Plastics (\$533.9 million), Miscellaneous chemical products (\$452.9 million), Copper (\$320.8 million), Optical, photo, technical, medical apparatus (\$264.9 million), Iron and steel (\$254.6 million), Glass and glassware (\$231.7 million), Aluminum, Rubbers, Fertilizers, and Wood.¹⁰⁵

- **India-South Korea CEPA; Effective January 2010**
 - The Comprehensive Economic Partnership Agreement between India and South Korea, negotiated over 12 rounds in a three-year period, came into effect in January 2010. This partnership eliminated tariffs over a 10-year period resulting in a \$20 billion trade volume by the end of 2011 (up from \$16 billion). Media reports efforts have been undertaken to expand the CEPA and with both sides hoping to conclude negotiations by 2024.¹⁰⁶

Indian Nation Trade Deals: Pre and Ongoing Negotiation Examples

- **India-Bangladesh (IB-CEPA); Preparing for Negotiations**
 - Media reports that Indian openness for a free trade deal between the two countries has been present since 2021. However, beginning of negotiations has been slow. On October 1st, 2023, India and Bangladesh announced preparation to begin talks for a free trade agreement in the form of a Comprehensive Economic Partnership Agreement after meeting at the Joint Working Group on Trade. However, recent concern has arisen regarding Bangladesh’s reliance on China for raw goods as well as the potential for Bangladesh to join the China-backed regional economic block. Current portfolio of Bangladesh exports to India mostly consists of textiles

¹⁰⁴ Ministry of Commerce, Government of India. (2021). India-Mauritius CECA. [Link](#); Ministry of Foreign Affairs, Government of Mauritius. (2021) Comprehensive Economic Cooperation and Partnership Agreement between Mauritius and India. [Link](#)

¹⁰⁵ Bonesh, F. (January 2nd, 2024). India-Malaysia Economic Partnership: Challenges, Prospects, and Strategic Collaborations. IndiaBriefing. [Link](#); Ministry of Investment, Trade and Industry, Government of Malaysia. (2023) Malaysia-India Comprehensive Economic Cooperation Agreement (MICECA). [Link](#); Sen, A. (June 25th, 2024). Commerce Ministry seeks inputs from industry for India-Malaysia CECA review. The Hindu Businessline. [Link](#)

¹⁰⁶ India Embassy, Seoul, Republic of Korea. (2022). India-ROK Comprehensive Economic Partnership Agreement (CEPA). [Link](#); Siddiqui, H. (February 28th, 2024). India-South Korea to Wrap up Upgraded CEPA in 2024: Envoy. Financial Express. [Link](#)

and pure vegetable oils.¹⁰⁷

- **India-Canada (CEPA); Stalled Negotiation, Potential to Renew after Canadian Election 2025**
 - India and Canada resumed FTA negotiations in April 2022, following a five-year hiatus. However, negotiations have stalled out since September 2023 due to friction surrounding the pro-Khalistan movement and the assassination of Hardeep Singh Nijjar, a pro-Khalistan Canadian citizen. Media reports resumption of talks is only expected to begin with the resolution of these political issues or departure of the current government after the 2025 Canadian elections.¹⁰⁸

During negotiations, reportedly, both sides are seeking an interim trade deal aimed initially at bolstering bilateral commerce and investment within the next six-to-nine months. Renewed efforts toward ensuring market access for Indian horticultural products such as baby corn, sweet corn, and bananas are being pursued. Canada, for its part, is requesting a systems approach to pest risk management for pulses, while seeking market access for cherries and lumber. Additionally, India is requesting conformity verification body status for the Agricultural and Processed Products Export Development Authority (APEDA), its apex export trade promotion body, for the certification of Indian organic agricultural and food products, with Canada agreeing to examine the request.

- **India-Chile (FTA); Preferential Trade Agreement, Potential for a Free Trade Agreement**
 - In March 2006, India and Chile signed a Preferential Trade Agreement (PTA) that went through a successful expansion in 2017. Additional negotiations for a second expansion are ongoing as of 2021. Currently, there is interest in the expansion to a Free Trade Agreement with media reporting expectations that negotiations may begin in late 2024. India's current top imports from Chile include ores (copper, iron), precious metals, edible fruit and nuts, inorganic chemicals, and pulp of wood or other fibrous cellulosic material. Similar to Peru, India is expected to prioritize access to lithium to fuel its green manufacturing industry while also seeking to expand its overall access to South American markets.¹⁰⁹
- **India-Israel (FTA); In Negotiations**
 - India and Israel have been discussing the possibilities of an FTA for over a decade. Talks between both countries are set to resume in May 2022. Over the course of the past six months, India and Israel have sought to expand bilateral ties. In doing so, they have ramped up the exchange of items of interest, trade, and

¹⁰⁷ Sen, A. (December 24th, 2023). RCEP worries: India may reassess negotiating FTA with Bangladesh. The Hindu Businessline. [Link](#); PTI. (October 1st, 2023). India, Bangladesh discuss preparations to start talks for free trade agreement. The Hindu. [Link](#); ANI. (October 14th, 2021). India ready for negotiations of economic pact with Bangladesh, says Envoy. Business Standard. [Link](#)

¹⁰⁸ PTI. (September 16th, 2023). India-Canada talks for trade agreement to resume after resolution of political issues: Official. The Economic Times. [Link](#)

¹⁰⁹ Ministry of Commerce, Government of India. (2022). Annual Report 2021-2022. [Link](#); Rao, A. (May 24th, 2024). Reviewing India and Chile's Expanding Economic Partnership. IndiaBriefing. [Link](#)

tariff data. An India-Israel FTA would broaden the basket of trade that is currently dominated by defense, high-technology, and agriculture collaboration. Top agricultural imports from Israel include agro-chemical and fertilizers. Negotiations on a Free Trade Agreement were aimed to conclude in 2022. However, no Free Trade Agreement has materialized at this time with the timeline has been extended due to delays including the October 7, 2023, Hamas Attack.¹¹⁰

- **India-New Zealand (FTA); Stalled Negotiations, Potential to Renew**
 - Recognizing early the potential of India as a growing economic power, New Zealand initiated negotiations for a free trade agreement with India in April 2010. Negotiations stalled (last meeting between lead negotiators happening through 2015 and 2016 due), in part, so parties could refocus on negotiations of the Regional Comprehensive Economic Partnership (RCEP). As India did not formally join RCEP, Media reports there has been renewed interest in resuming negotiations of a Free Trade Agreement. Key agricultural exports of New Zealand to India include logs and wood products, fruit and nuts, as well as dairy products.¹¹¹

- **India-Oman (CEPA); Negotiations Concluded, Awaiting Signature**
 - India and Oman have concluded negotiations in early 2024 on a Free Trade Agreement in the form of a proposed Comprehensive Economic Partnership Agreement. Media reports indicate that signing of the trade agreement will take place after the June 2024 elections. Key aspects of the agreement seem to include labor mobility as well as the ability for India to set up facilities within Oman to develop it as an energy-efficient manufacturing base to export green products. Oman is seeking to diversify its economy from oil exports while gaining access to Indian knowledge. Current exports to India from Oman focus mainly on petroleum products, liquified natural gas, gaseous hydrocarbons, and chemical fertilizer.¹¹²

- **India-Peru (FTA); In Negotiations**
 - Negotiations of a Free Trade Agreement between Peru and India began in 2017. The seventh round of negotiations concluded in April 2024 with the eighth round of negotiations in June 2024 highlighting the momentum currently behind this deal. Prior to the June 2024 elections, India noted prioritization of completing trade agreement with Peru as part of the 100-day plan following the elections. Peru's primary exports to India consist of natural mineral resources including lead, zinc, gold, copper, and silver with India expected to prioritize access to

¹¹⁰ Indian Brand Equity Foundation. (March 2024). India Israel Trade. [Link](#)

¹¹¹ Kumar, D. (June 26th, 2024). Trade deals: India exploring renewed negotiations with New Zealand, South Africa for new FTA Deals. Mint. [Link](#)

¹¹² Kumar, D. & Kundu, R. (April 7th, 2024). India, Oman conclude trade talks; to sign deal after elections. Mint. [Link](#)

lithium to fuel its green manufacturing industry. Additional areas of interest highlighted for Free Trade Negotiations include services.¹¹³

- **India-South Africa (CEPA); Potential Renewed Interest**
 - As India seeks to expand its influence in the African markets, media reports indicate that India may request for an initiation of proposal for Free Trade Agreement talks with South Africa in the near future.¹¹⁴
- **India-United Kingdom (FTA); In Negotiation**
 - India and the UK aim to conclude a comprehensive and balanced free trade agreement with the 14th round of talks concluding in January 2024. However, India's June 2024 elections as well as upcoming July 2024 UK elections have put negotiations on hold. It is estimated that such an FTA would double two-way trade between the two countries to \$100 billion by 2030. Media speculates that the change in UK government in 2024 will not risk India-UK relations. The new Labor government seem to be prioritizing the India-UK relationship with foreign secretary David Lammy arriving in India shortly after conclusion of UK elections, potentially continuing FTA negotiations with an ultimate deal likely.¹¹⁵

Ongoing negotiations have reportedly included discussions to lower duties for bulk and bottled Scotch whiskey from 150 percent to 100 after one year, and to 50 percent over a 10-year period. In 2022, India became the Scotch whiskey industry's largest global market by volume importing 219 million 700ml bottles compared to the U.S. value of 3.2 million. Additionally, Scotch whiskey fulfills approximately 80 percent of India's premium whiskey market, with the additional 20 percent covered by a mixture of suppliers, including the United States. The implementation of the FTA would be disadvantageous to U.S. distilled spirits - including bulk and bottled bourbon- which would still be under a 150 percent import duty. This could lead to consumers purchasing cheaper bottled products and risking displacement of U.S. bourbon brand that are bottled in India.¹¹⁶

Indian Multilateral Trade Deals: Current Examples

- **India-ASEAN CECA (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam); Effective January 2010**
 - Initially agreed as a framework in 2003 with a final agreement being reached in August 2009, the India- ASEAN Comprehensive Economic Cooperation Agreement came into effect in January 2010. The agreement helped create the

¹¹³Government of India, Press Information Bureau. (April 11th, 2024). 7th round of the India-Peru Agreement Negotiations concludes in New Delhi [Press Release]. [Link](#); Rao, A. (April 15th, 2024). India-Peru Trade Agreement: Bilateral Negotiations Ongoing. IndiaBriefing. [Link](#); Kumar, D. (April 12th, 2024). India, Peru conclude 7th round of FTA talks. Mint. [Link](#)

¹¹⁴ Kumar, D. (June 26th, 2024). Trade deals: India exploring renewed negotiations with New Zealand, South Africa for new FTA Deals. Mint. [Link](#)

¹¹⁵ Landale, J. (July 24th, 2024). David Lammy arrives in India for trade talks. BBC. [Link](#)

¹¹⁶ Cyrill, M. (March 9th, 2024). India, UK FTA Negotiations: Key Updates. IndiaBriefing. [Link](#); Courea, E. (March 5th, 2024). UK negotiators fly to India in last-ditch effort to seal free-trade deal. The Guardian. [Link](#); Pant, H. & Malhorta. (July 3rd, 2024). India-UK Ties amid British Political flux. Business Standard. [Link](#)

ASEAN-India Free Trade Area (AIFTA). Under the agreement, approximately 75 percent of trade tariff (80 percent of tariff lines) were eliminated through a 10-year gradual reduction mechanism. However, approximately 1079 tariff lines were excluded from tariff concessions or elimination which included both specific agricultural and textile projects.¹¹⁷

- **Agreement on South Asian Free Trade Area (SAFTA)** (India, Pakistan, Nepal, Sri Lanka, Bangladesh, Bhutan, Maldives, Afghanistan); Effective January 2006
 - Building off the SAARC Preferential Trading Agreement signed in April 1993, the South Asian Free Trade Area (SAFTA) came into effect in January 2006 with Afghanistan joining in 2006. India has supplemented this agreement with FTAs or preferential trade agreements with Sri Lanka, Nepal, and Bhutan. The ultimate aim of the agreement was the reduction of custom duties on all traded goods to zero by 2016 utilizing a phased tariff reduction model. However, this agreement did not encompass all goods with exclusion lists being maintained by each party to be negotiated individually.¹¹⁸

Indian Multilateral Trade Deals: Pre and Ongoing Negotiation Examples

- **India-European Union FTA: In Negotiation**
 - India and the European Union (EU) are set to resume negotiations for a prospective FTA in June 2022. Since then, multiple rounds of negotiations have taken place with the latest being in October 2023. Trade negotiations will likely be a long drawn-out process due to persistent market access issues, coupled with the complexities arising from negotiating with a 27-member bloc. The EU aims to have India relax import duties, specifically on alcoholic beverages and dairy products. India, as in the case with the FTA with Australia, may agree to duty reductions but capping these at certain volumes. It was stated that both parties hoped for talks to be fast-tracked with an agreement concluded by 2023. However, differences between the two parties in addition to Indian elections in June 2024 indicate that negotiations will stretch throughout 2024 at least.¹¹⁹
- **India - Gulf Cooperation Council FTA; In Negotiations**
 - The Gulf Cooperation Council – Saudi Arabia, UAE, Qatar, Kuwait, Oman, Bahrain – and India, in November 2022, were set to resume negotiations for a Free Trade Agreement. Since then, media reports progress has been made with potential for completion in the coming years. Negotiations were previously held in 2006 and 2008. India primarily imports energy, in the form of crude oil and

¹¹⁷ Ministry of Commerce, Government of India. (2009). Indian-ASEAN Agreements. [Link](#); Indian Trade Portal, Government of India. (2014). Comprehensive Economic Cooperation Agreement Between India and Association of Southeast Asian Nations (ASEAN). [Link](#)

¹¹⁸ Ministry of Commerce, Government of India. (2020). Agreement on South Asian Free Trade Area (SAFTA). [Link](#); Deol. O.S. (2016) South Asian Free Trade Area Agreement: An Analysis of India's Agricultural Trade. EPRA International Journal of Economic and Business Review. ISSN 2347-9671. <https://eprajournals.com/IJES/article/8462/abstract>; United Nations. (n.d.) South Asian Free Trade Area (SAFTA). [Link](#)

¹¹⁹ European Parliament. (2024). EU-India free trade agreement. [Link](#)

natural gas, while exporting precious and semi-precious stones, metals, electrical machinery and chemicals.¹²⁰

- **India - Southern African Customs Union (SACU);** In Negotiation for PTA, Potential for an FTA
 - Media reports indicate that revival of negotiations for a Free Trade agreement with the Southern African customs Union – South Africa, Botswana, Lesotho, Namibia, Swaziland – may be prioritized after the June 2024 election. India may seek to reprioritize SACU to gain greater access to African Markets and diversify export destination including in pharma, iron, and steel. Negotiations for a Preferential Trade Agreement started in 2002 with five rounds held until 2010. In July 2020, PTA negotiations were revived, and it has been reported progress has been made in the interim.¹²¹

- **India - Eurasian Economic Union (EEU) FTA;** Preparing for Negotiation
 - It has been reported in the media that India and the Eurasian Economic Union – Russia, Armenia, Belarus, Kazakhstan, Kyrgyzstan – have potential willingness to move forward to begin negotiations on a free trade agreement. India's top imports from Russia include crude oil and petroleum products, coal, fertilizer, vegetable oil, pearl, iron, steel, and newsprint. India continues to utilize its size and global importance to capitalize on the current global situation to strike opportunistic international trade deals.¹²²

Attachments:

No Attachments.

¹²⁰ Goyal, P. (November 25th, 2022). India, GCC Agree to Pursue Free Trade Agreement; Resume Talks; Piyush Goyal. Outlook Business + Money. [Link](#); PTI. (July 12th, 2023). Hope India-GCC FTA becomes a reality 'very soon': Official. Economic Times. [Link](#)

¹²¹ Mishra, R. & Mattoo, S. (June 25th, 2023). India plans to revive trade deal with SAC. Mint. [Link](#); Sen, A. (June 25th, 2023). Trade diversification: India set to revive FTA talks with South Africa-led group. The Hindu Businessline. [Link](#); Nandi, S. (March 24th, 2024). FTA talks with SACU nations on the cards after new govt takes over. Business Standard [Link](#)

¹²² Kumar, D. (May 18th, 2024). India and Russia-led Eurasian Economic Union to state FTA talks in coming months. Mint. [Link](#)