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Report Highlights:

India is gearing up for a record wheat harvest in market year (MY) 2024/2025. FAS New Delhi (Post) forecasts India's wheat production at 112.5 million metric tons (MMT), thanks to the timely and record plantings of wheat, which benefitted from favorable weather conditions from the time of planting through the reproductive growth stages. Yet, India is also set to emerge anew as an importer of wheat; imports are forecasted at 2 MMT premised on expected steady domestic demand, a decline in government-held wheat stocks, and relatively weak global prices. At the same time, India's MY 2024/2025 rice production is forecast to come in at 135 MMT, just shy of another record setting harvest. Post attributes improved production to strong domestic prices fueling higher returns for rice compared to other crops this season, which will drive farmer planting intentions. Post foresees near record corn production of 37 MMT.

EXECUTIVE SUMMARY

India is gearing up for a record wheat harvest in market year (MY) 2024/2025 (April-March). FAS New Delhi (Post) forecasts India's wheat production at 112.5 million metric tons (MMT), thanks to the timely and record plantings of wheat, which benefitted from favorable weather conditions from the time of planting through the reproductive growth stages. Yet, India is also set to emerge anew as an importer of wheat for the first time in six-years. Post forecasts India's wheat imports of 2 MMT premised on expected steady domestic demand, a decline in government-held wheat stocks, and relatively weak global prices.

At the same time, India's forecast MY 2024/2025 (October-September) rice production is set to come in at 135 MMT, just shy of another record harvest. Post attributes the expected improved production to strong domestic prices fueling higher returns for rice compared to other crops this season, which will drive farmer planting intentions. With the expected weakening of El Niño conditions going forward after summer of 2024, a better 2024 monsoon season (June-September) will support more timely plantings and higher yields.

Following up on very good performance for rice production in MY 2024/2025, India is forecast to export some 18 MMT of rice. The Indian government is expected to ease some of its more restrictive export control policies, meant to keep food inflation in check, by opening possibilities for higher export quotas for broken/white rice on forecasted improved domestic supplies.

FAS New Delhi foresees in MY 2024/2025 (November-October) corn production hitting 37 MMT. The crop's very good performance (at near record levels) is being attributed to an expected return to a more normal 2024 monsoon season. Post foresees strong domestic demand, at a time of weak global prices, outpricing India's domestic corn. This will limit India's MY 2024/2025 exports to around 1 MMT, largely unchanged from the previous year's volumes. Indian corn will mostly travel through overland routes to its immediate neighboring countries.

COMMODITY

WHEAT

Table 1. India: Commodity, Wheat, Production-Supply-Distribution (PSD)

Wheat	2022/2023		2023/2024		2024/2025	
Market Year Begins	Apr 2022		Apr 2023		Apr 2024	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	30459	30459	31401	31401	0	31800
Beginning Stocks (1000 MT)	19500	19500	9500	9500	0	6900
Production (1000 MT)	104000	104000	110554	110554	0	112500
MY Imports (1000 MT)	53	42	250	120	0	2000
TY Imports (1000 MT)	72	54	300	120	0	2000
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	123553	123542	120304	120174	0	121400
MY Exports (1000 MT)	5377	5377	300	300	0	300
TY Exports (1000 MT)	1626	1626	300	300	0	300
Feed and Residual (1000 MT)	6500	6500	6750	6750	0	6000
FSI Consumption (1000 MT)	102176	102165	104254	106224	0	107500
Total Consumption (1000 MT)	108676	108665	111004	112974	0	113500
Ending Stocks (1000 MT)	9500	9500	9000	6900	0	7600
Total Distribution (1000 MT)	123553	123542	120304	120174	0	121400
Yield (MT/HA)	3.4144	3.4144	3.5207	3.5207	0	3.5377

(1000 HA), (1000 MT), (MT/HA).

MY = Marketing Year, begins with the month listed at the top of each column.

TY = Trade Year, which for Wheat begins in July for all countries. TY 2024/2025 = July 2024 to June 2025.

PRODUCTION

MY 2024/2025 Outlook

India is heading for a back-to-back record wheat harvest this marketing year (MY) 2024/2025 (April-March). Favorable weather conditions in the major wheat growing areas are supporting record planting and normal crop growth. Assuming normal weather conditions hold from late March 2024, through the harvest at the end of April, FAS New Delhi (Post) forecasts MY 2024/2025 wheat production at a record 112.5 million metric tons (MMT) from 31.8 million hectares (record), even better than the last year's record harvest of 110.6 MMT coming from 31.4 million hectares.

The timely withdrawal of the 2023 monsoon, generally favorable weather conditions and expectation of higher market price/government's minimum support prices (MSP) fueled timely and record planting of wheat. Generally favorable weather conditions and soil moisture, adequately maintained through supplemental irrigations, is providing favorable conditions for crop growth and at the reproductive stage strengthening higher yield prospects. Post's field sources report no major incidence of crop damage due to weather extremities or pests/disease in

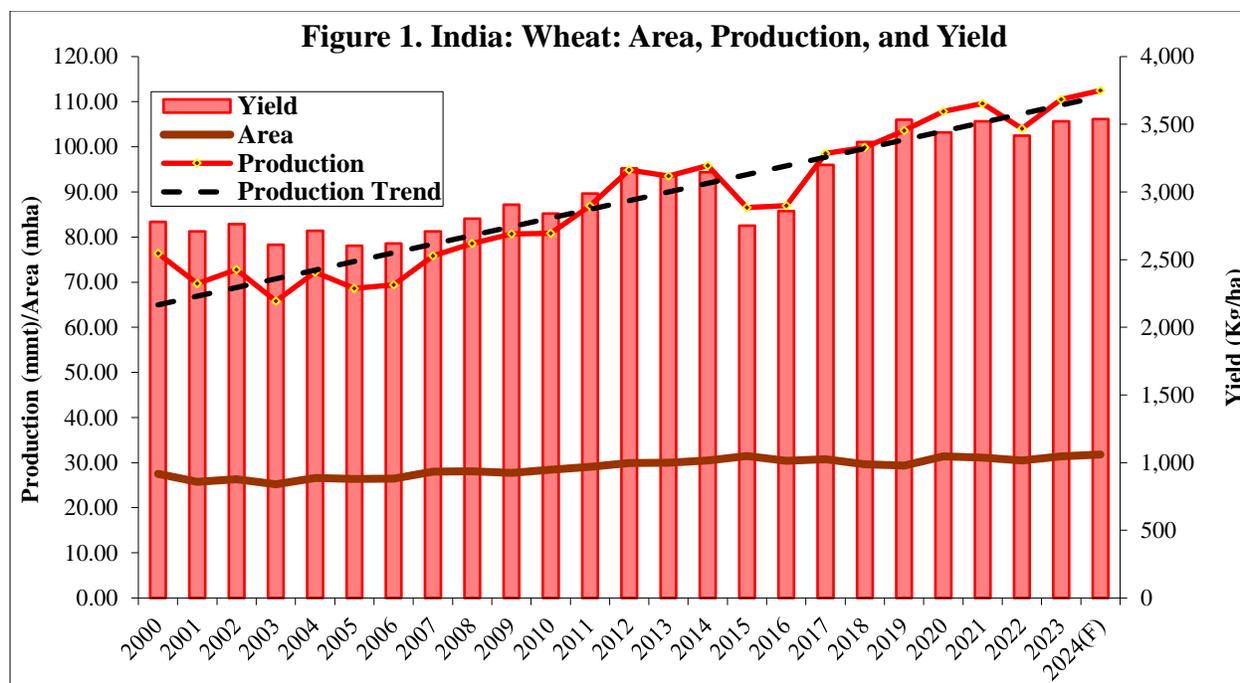
the major wheat production areas of the country. However, any spike in temperature in late March-early April, when the crop is at the advanced reproductive stage, and/or untimely rains/hail at the time of harvest (April-May) can adversely affect overall production prospects.

Area: Adequate precipitation and a timely withdrawal of the 2023 monsoon in late September 2023, provided favorable wheat planting conditions in October-November in the major wheat production states. Firm market prices in MY 2023/2024, along with a seven percent increase in the government's minimum support price for MY 2024/2025, and expectations of steady MSP procurement in the lead up to India's general elections in April/May 2024, encouraged farmers to plant wheat over pulses such as chickpeas in the rabi (winter planted) season, especially in irrigated lands. Based on the preliminary planting report from the [Ministry of Agriculture and Farmers Welfare Second Advance Estimates](#), MY 2024/2025 wheat area is estimated at 31.8 million hectares, slightly higher than last year's record planting (31.4 million hectares).

Yields: Farmers this season, in response to the recent occurrences of the onset of high temperatures leading to terminal heat stress, opted for a timelier planting of the wheat crop, and ensured adequate soil moisture conditions through irrigation. The onset of winter's lower temperatures by early November, along with adequate irrigation water availability, supported the wheat crop at the critical growth stages (i.e., vegetative growth, tillering, flowering, panicle initiation). While the harvest of early planted wheat in the Indian states of Madhya Pradesh and Gujarat has commenced, most of the wheat crop is now at the advanced maturity stage. It is progressing well without any reports of pest and or of disease incidences. Assuming weather conditions hold through the harvest (i.e., end of April), Post forecasts MY 2024/2025 yields marginally higher at 3.54 metric tons (MT)/hectare (record) compared to last year's 3.52 MT/hectare. However, any spike in daytime temperatures above 38-40° Celsius, along with night temperatures holding at above 18-20° Celsius during grain filling stage (late March-April), and/or untimely rains/hailstorms during the harvest season (April-early May) might affect yield prospects, and lower forecast production by 5-10 MMT, as has been observed historically.

Production Trend and Future Challenges Over the last two decades, Indian wheat production is trending upwards. Production, however, has slipped on occasion below the trend line in recent years due to extreme weather events.¹ Production gains are fueled by the combination of the central government's policy of a steady increase in minimum support prices along with the expansion of MSP procurement operations in non-traditional states. The adoption of new, improved higher yielding varieties, replacing existing lower yielding cultivars, has taken place in conjunction with the expansion in irrigation facilities in the Indian states of Madhya Pradesh and Uttar Pradesh.

¹ The MY 2015/2016 harvest was affected by untimely heavy rains and hailstorms at the advanced maturity stage in March/April. While in MY 2016/2017 and MY 2022/2023, production was adversely impacted by the early onset of summer and terminal heat stress.



Source: Ministry of Agriculture and Farmers Welfare; FAS New Delhi forecast for 2024 (MY 2024/2025).

Indian wheat is of a white bread quality, that is soft- to medium-hard. It is a medium protein wheat, comparable to U.S. hard white wheat. India produces some durum wheat in the states of Madhya Pradesh, Rajasthan, and Maharashtra for local food processors. While official estimates are not available, field reports indicate higher plantings of durum wheat this season compared to last year on growing domestic demand and steady yields under lower irrigation conditions, with MY 2024/2025 durum production forecast at 2.2 MMT compared to 2.1 MMT last year.

Wheat Favored Winter Crop: The Green Revolution’ of the 1960s brought a significant increase in India’s wheat productivity. Wheat remains the preferred rabi (winter planted) crop in the irrigated areas of the northwestern and central India. Farmers’ cultivation choice is also driven by the Indian government’s policy focus on wheat for the nation’s food security programs, which fuels relentless increases in the MSP and concurrent expansion in procurement. With the Indian government’s insatiable appetite for MSP wheat, market prices are bolstered along with assured returns for the farmers’ wheat crop compared to the other crops. Relatively higher, and steady wheat prices and yields compared to other competing rabi crops (i.e., corn, rapeseed/mustard, chickpeas, and other oilseeds/pulses) encourages farmers to prioritize wheat, with wheat acreage over the last decade ranging between 29.3 to 31.8 million hectares.

Yields Vary on Irrigation Availability but Rising Nonetheless: Indian wheat yields are now very close to the global average, but wheat yields do vary significantly between the Indian production states based on the status of assured irrigation water availability. The Himalayan glaciers continue to feed into India’s perennial river system, replenishing for now the northern Indian states of Punjab, Haryana, and western Uttar Pradesh’s surface (i.e., canal) and ground (i.e., tube wells) water systems. Greater assured water availability enables northern India’s farmers to typically irrigate fields five-to-seven times during the crop season, obtaining yields above 4.7 MT/hectare, and comparable to those of high yield global wheat producers. However,

wheat production in India's central and western states, that is in central and east Uttar Pradesh, Madhya Pradesh, Rajasthan, and Gujarat, largely depend on residual water from the seasonal monsoon rains (June-September), allowing for just two-to-four assured irrigations during the crop season. Consequently, wheat yields in these states are lower, ranging 2-3.5 MT/hectare.

Wheat yields in the central and western states are gradually bettering thanks to improved irrigation along with the development of location specific new higher yielding wheat varieties. Increased MSP procurement in these states is motivating farmers to shift from the traditional, but lower yielding/higher quality cultivars to higher yielding/lower quality varieties. The improved varieties are being supplied by the government to maximize farmers' MSP-based net returns per hectare. Public sector research institutions are providing new higher yielding location specific varieties. The local state governments support their farmers shifting to the new varieties.

Climate Change/Sustainability Challenges: Indian wheat production is already facing a greater frequency, intensity, and duration of extreme climate events. Over the last decade the incidence of delayed monsoon withdrawals, accompanied by the early onset of summer (leading to terminal heat stress) and untimely heavy rains and hailstorms during crop reproductive stages has impacted wheat harvests. Given the higher probability of more frequent occurrences of extreme weather events, driven by global climate change, there is concern with the long-term sustainability of India's wheat production under the existing input intensive farming practices. India's National Agriculture Research System, under the aegis of [Indian Council of Agricultural Research](#) (ICAR) and various state agricultural universities (SAU) are researching response mechanisms. These focus on agronomic management (i.e., early planting and zero tillage) and technological advances (e.g., shorter duration varieties) to mitigate climate change risks.

In northern India, the input intensive rice-wheat monoculture cropping practice is resulting in soil fertility decline issues, leading to over-fertilization which is increasing soil salinity. At the same time, over-exploitation of groundwater by flood irrigation has resulted in steady decline in the water table in wheat growing areas.² If the current rice-wheat production practices continue unabated, further declines in the water table will force farmers to shift from rice and wheat to less water intensive crops such as corn, pulses, and vegetables within the next 8-10 years.

Some northwestern wheat growing areas report sporadic incidence of yellow rust, but there has been no reported incidence of Ug99, which is a wheat rust of global concern. Since the onset of Ug99 in Africa in late 1990s, the Indian government has been proactively screening and replacing susceptible cultivars with varieties tolerant to Ug99.

CONSUMPTION

FAS New Delhi forecasts food-seed-industrial (FSI) wheat consumption in MY 2024/2025 at 107.5 MMT, an increase of 1.2 percent compared to last year's estimated consumption. Despite the MY 2023/2024 Indian government-held food grain ending stocks estimated to decline below the buffer stock norms, the government will likely continue the pace of its wheat allocations

² Typically, the main production states follow the rice-wheat crop rotation, with rice planted in the kharif (fall harvested) season followed by wheat in rabi (winter planted) season. Both are high water, chemical fertilizer/pesticide/weedicide/fungicide intensive crops.

under the food security programs and the open market sales scheme (OMSS) in the upcoming marketing year out of food inflation concerns.³ Wheat for feed and residual use is forecast lower at 6 MMT on expected steady wheat prices on foreseen tighter supplies. Post is revising higher the MY 2022/2023 FSI consumption estimate to 106.2 MMT on higher than initially expected offtake of government wheat under various government programs including the OMSS.

FSI Consumption: Wheat is the main staple cereal in northwest and central India, the country's traditional wheat growing regions, but competes with rice in southern and eastern India. India's FSI wheat consumption in MY 2023/2024 increased by nearly four percent compared to previous year with the Indian government raising its subsidized wheat allocation for open market sales.⁴ The government is likely to augment its abnormally low MY 2024/2025 wheat opening stocks through aggressive MSP procurement in the upcoming season. With India's general elections ending by late May, incidentally during the peak MSP procurement season (April-June), the new government is likely to continue with wheat allocation under the various national food security programs and open market sales scheme out of food inflation concerns. To control domestic prices, the government has the option of increasing domestic supplies through imports on expected weak global wheat prices during the upcoming marketing year. Post forecasts FSI wheat consumption in MY 2024/2025 at 107.5 MMT, an increase of 1.2 percent over MY 2023/2024, which is slightly over India's population growth rate of 0.8 percent per annum.

Households, local restaurants, and eateries account for 75-80 percent of the wheat consumed domestically as *atta* (whole wheat flour) and *maida* (i.e., white flour). About 12-15 percent of wheat goes into the production of processed products like raised breads, biscuits (cookies), and other bakery items. There is also a small but growing market for high quality wheat (about 5-7 MMT) for western-style pasta, and baking/confectionary foods. The organized milling sector is comprised of 1,300-1,400 medium-to-large flourmills with milling capacity of about 28-30 MMT, per year. Market sources report that most mills operate at 55-60 percent of their capacity, processing about 16-18 MMT of wheat annually. Most wheat is milled for home flour use by the unorganized sector, comprised of small neighborhood flourmills (i.e., *atta chakki*).

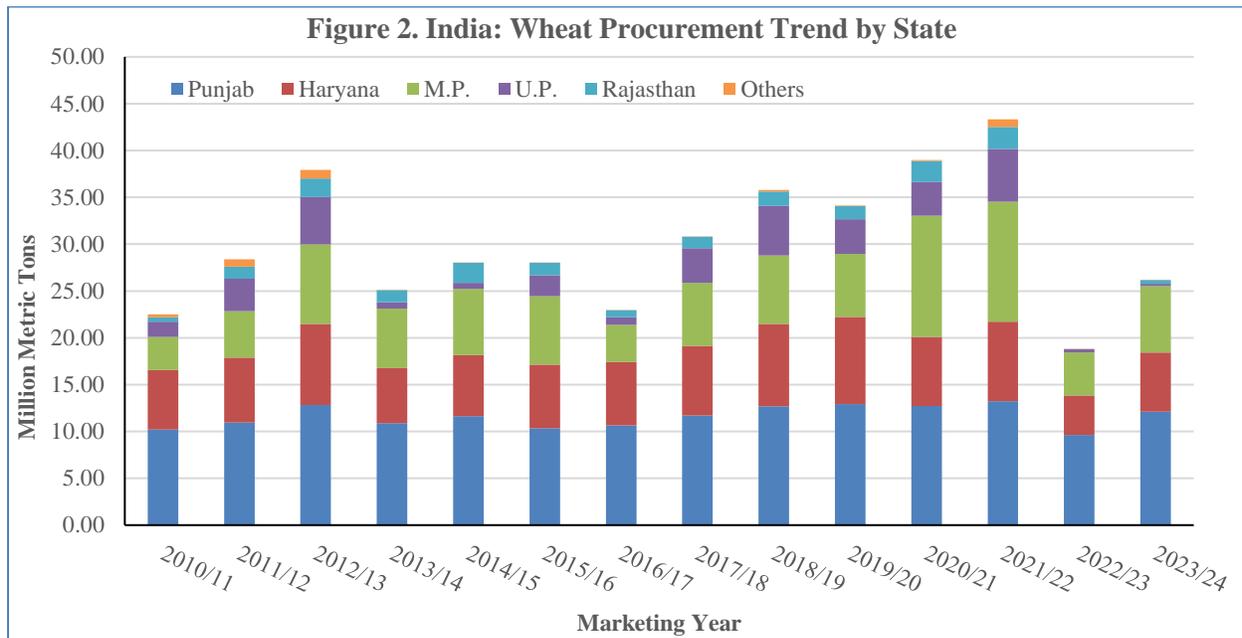
Feed Use: Spoiled wheat deemed not fit for human consumption, whether from government-held or private trade stocks, and wheat bran from the flour milling industry is used as animal feed, mainly for dairy cattle and domestic water buffalo (*Bubalus bubalis*) and smaller quantities for poultry feed. Farmers also use inferior quality wheat, broken wheat, and wheat bran for feeding lactating dairy cows/water buffalo at the household level (i.e., unorganized sector). Due to lower spoilage with government-held wheat stocks, and forecasted steady wheat prices, Post expects lower usage of wheat for animal feed. FAS New Delhi forecasts MY 2024/2025 wheat feed and residual consumption at 6 MMT down from 6.8 MMT in MY 2023/2024.

Government Procurement and Sales: Following a record harvest, higher MSP, and an ongoing export ban, government wheat procurement in MY 2023/2024 recovered to 26.2 after declining to 18.8 MMT in MY 2022/2023. However, it came in significantly lower than the government's procurement target of 34.2 MMT and much lower than record procurement of 43.3 MMT seen in MY 2021/2022. Procurement improved in the main MSP wheat procuring states over last year

³ April 1 Buffer Stock Norms for wheat is 7.46 MMT.

⁴ Wheat sales under OMSS in MY 2023/2024 are estimated at 10 MMT compared to 3.39 MMT the previous year.

but was relatively weak in the states of Madhya Pradesh, Uttar Pradesh, and Rajasthan due to higher open market prices in the May-June period.



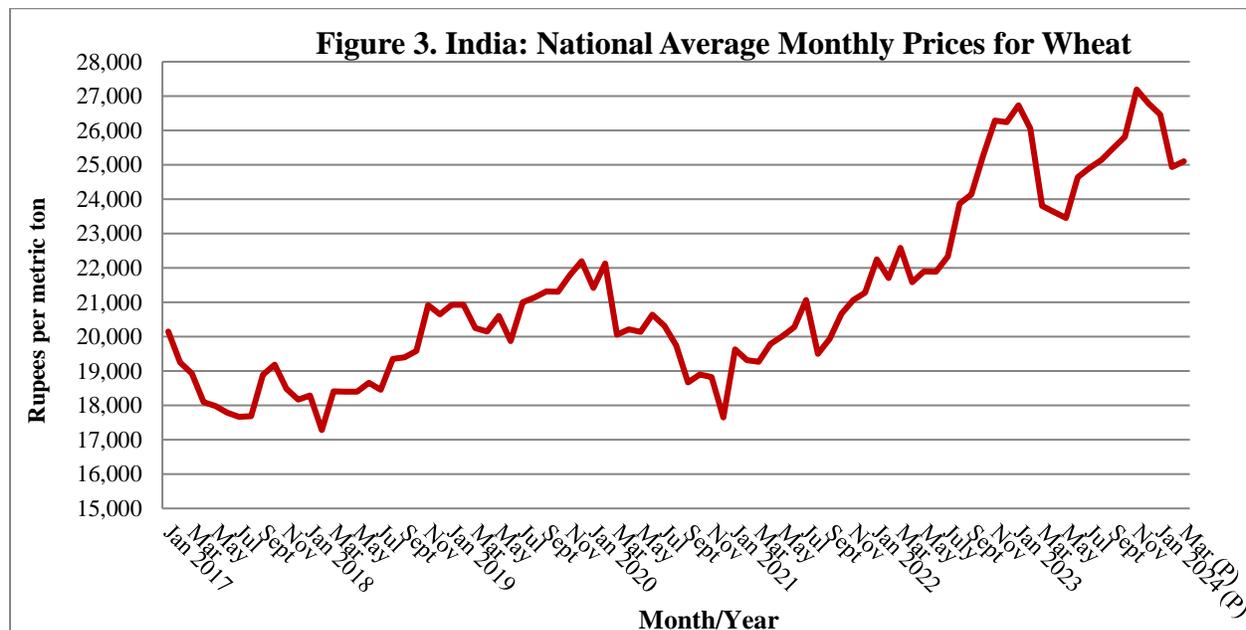
Source: Food Corporation of India; FAS new Delhi office research.

With a forecast record harvest, and the continuation of the export ban on wheat and wheat products, along with stock limits on private processors and traders, the Indian government will bolster MY 2024/2025 MSP procurement target to 30-32 MMT. Despite the government releasing additional wheat at subsidized prices in the last quarter of MY 2023/2024, wheat prices in the first week of March are well above the 2024/2025 MSP of INR 22,750/MT. Post sources report that the private trade will be less active in the market during the harvest/ procurement season (April-June) due to government-imposed stock limits. Price speculation may, however, encourage farmers/local traders to retain higher than normal stocks for late season sales.

Assuming India has a record harvest, MSP procurement in the upcoming season will be higher than last year's in most of India's wheat production states. With the government-held food grain stocks falling low, government procurement may occur at a quick pace and could exceed the government's target of 30-32 MMT; this would ensure sufficient wheat stocks to meet the government's food security program commitments.

Currently, the government distributes 22-24 MMT of wheat per annum under the National Food Security Act (NFSA) through the public distribution system (PDS) and other food security programs. Despite forecast low opening stocks, forecast higher procurement (32 MMT), the government is likely to have sufficient wheat stocks to meet the requirements for food security programs (22-24 MMT) and mandatory buffer stocks (7.46 MMT), with some surplus for the OMSS requirements (7-8 MMT) in the upcoming marketing season.

Prices: Domestic prices have been on the upward trend for most of the MY 2023/2024 season. That is, even before the government intervened by releasing additional subsidized wheat under the OMSS and imposed stringent stock limits on the private trade towards end of 2023.⁵



Source: [AgMarketNet](https://www.agmarketnet.com/), Ministry of Agriculture and Farmers Welfare; FAS New Delhi office research.

Domestic prices have eased significantly since December 2023, but now have steadied in March 2024. Average spot prices in the first week of March 2024, in the major wheat production states range between INR 23,650 (\$288) to INR 25,300 (\$309)/MT, compared to the MSP of INR 22,750 (\$277)/MT in MY 2024/2025. Market sources expect prices to ease during the harvest/marketing period (April-July) as the private trade is unlikely to compete with the government MSP procurement. However, any incidence of extreme climate events and its impact on upcoming wheat harvest may affect future price movements and MSP procurement.

TRADE

Assuming forecast consumption demand growth, India will be a net importer of wheat in MY 2024/2025, the first time since MY 2017/2018. Facing a situation of highly depleted government wheat stocks and relatively weak global wheat prices, growing domestic demand, and rising domestic prices will force the Indian government to lower import duties to allow wheat imports to supplement domestic supplies, possibly in the second half of MY 2024/2025. The government is unlikely to relax its export ban on wheat and wheat products. Indian wheat remains not price competitive with wheat from competing origins.

Imports: Steady domestic demand and rising prices may force the Indian government to revise the import duty lower from the current level. If so, FAS New Delhi forecasts India’s MY 2024/2025 imports at 2 MMT, occurring mostly by the private trade. Trade sources report that at

⁵ See, [GAIN-INDIA \[IN2024-0013\] India Grain and Feed Quarterly Update - March 2024](#).

the current price parity of global and local wheat, imports are feasible for the Indian southern states if the duties are lowered from the 40 percent to the 10-20 percent level. Most southern mills benefit from significant cost savings thanks to lower inland transportation costs for imported wheat (via ocean ports), especially if compared to higher domestic inland transportation costs associated with moving domestically produced wheat from north/central India down southwards.

The Indian government may also encourage wheat imports to facilitate exports of value-added wheat products (e.g., flour) to neighboring markets which have been adversely affected by India's export ban on wheat products. Post's industry sources expect that local wheat prices will rise in second half of the market year with the onset of festival season (i.e., from October 2024 onwards). With government-held wheat stocks now relatively tight to engage in another aggressive OMSS operation, it might be more prudent for it to allow imports to meet the regional demand through imports of more affordable foreign wheat at duty levels that still provide sufficient price protection to local wheat in the core Indian wheat consuming/producing markets.

India's existing import duty of 40 percent has limited import prospects for wheat and wheat product in MY 2023/2024. The latest trade data highlights March-December 2023, imports at just 120,000 MT, which includes about 62,000 MT of wheat coming in under advance license (duty free imports for re-export of value-added products). Based on the latest market reports, Post revises MY 2023/2024 imports lower to 120,000 MT.

Exports: Due to the uncompetitive price of Indian wheat and the expected continued export ban of wheat and wheat products, FAS New Delhi forecasts MY 2024/2025 wheat and wheat product exports at 300,000 MT, being largely limited to the neighboring land locked countries of Nepal, Bhutan, and Bangladesh and possibly to food aid recipient states. Provisional Indian official trade figures estimate wheat and wheat product exports for April-December 2023, at slightly over 215,000 MT (see, Appendix III), with exports mainly to neighboring Nepal. At the current pace of monthly exports, MY 2023/2024 exports are likely to reach 300,000 MT.

STOCKS

Based on the latest government-held wheat stocks estimate, and the expected offtake under the national food security programs along with the sale to the private trade in March, FAS New Delhi estimates MY 2023/2024 ending stocks lower at 6.9 MMT. Indian [government-held wheat stocks on March 1, 2024](#), are officially reported at 9.69 MMT, compared to 11.64 MMT reported last year. Assuming normal offtake for the national food security programs (1.6 MMT) and offtake of wheat by the private trade under the OMSS in the month of March (1.2 MMT), MY 2023/2024 ending stocks are likely to drop to 6.9 MMT (exclusively government-held stocks) compared to last year's 9.5 MMT (8.35 MMT government stocks plus 1.15 MMT private stocks). The private trade's ending stocks are estimated to be nil due to the government-imposed stock limits; that ensures only regular pipeline stocks with the private trade and is not accounted for in the production-supply-distribution (PSD) table. Forecast record production, along with the Indian government's intent to rebuild the depleted grain stocks will bolster government-held wheat stocks in MY 2024/2025. Post forecasts MY 2023/2024 ending stocks higher at 7.6 MMT, barely above the government-held buffer stocks volume 7.46 MMT.

POLICY

Price Supports and the Food Security Programs: Wheat, a staple cereal for a significant portion of the Indian population, benefits from a highly biased government support compared to other crops except for rice. The Indian government's farmer support and food security programs are hinged on two pillars: (i) government procurement of select crops at MSP to ensure remunerative prices for farmers, and (ii) distribution of food procured under MSP under the NFSA and other food security programs to ensure food for vulnerable segments of the population. The Indian government establishes an MSP for 23 crops, including wheat and rice, based on the recommendations of the Commission for Agricultural Costs and Prices (CACP). However, wheat and rice are the focus food grains for the government's MSP procurement and distribution under food security programs. Government agencies like the FCI and various state marketing agencies are mandated to procure wheat (and rice) at MSP for the central government stocks. The [NFSA 2013](#) creates an entitlement for eligible beneficiaries (i.e., for 50 percent and 75 percent of the urban and rural populations) receiving 5 kilograms (kg) of rice, wheat, or coarse grain (millet) at INR 3 (~3.7 U.S. cents), INR 2 (~2.4 U.S. cents) and INR 1 (~1.2 U.S. cents) per kilogram. Additionally, the government sells wheat through the [OMSS](#) to the private trade typically below cost and prevailing market prices to stabilize open market prices.

Market Intervention to Control Prices: In June 2023, following reports of farmers and traders allegedly holding back wheat stocks, the [Indian government-imposed stock limits on wheat](#) held by retailers, traders, and processors effective through March 31, 2024. In September 2023, the stock limits were further slashed [for retailers and traders from 3,000 MT to 2,000 MT](#). Besides cracking down on the private trade through the regularly monitoring of their wheat stock levels, the government lowered the stock limits for traders, retailers and processors on [December 8, 2023](#), and again in [February 8, 2024](#).⁶ In November 2023, the government launched sale of wheat flour under the brand name of "Bharat Atta" through government outlets at a subsidized price of INR 27.50 per kilogram and provided government-wheat to various government parastatals to make wheat flour at INR 21,500 per metric tons.⁷

With the government-imposed stock limitation measures unable to slow down domestic wheat's price rise, the Indian government began open market sales sooner than anticipated in July 2023, or about eight months before those of last year. As of November 1, 2023, the [government raised the weekly allocation of wheat under OMSS](#) from 0.2 MMT per week to 0.3 MMT per week (or 1.2 MMT per month) to keep prices under control during the upcoming holiday season. The increased offtake under the OMSS raised the monthly offtake of government wheat to 2.6-2.8 MMT per month from November onwards.

Research and Development: The National Agricultural Research System (NARS) under the leadership of Indian Council of Agriculture Research and comprising of various state agriculture universities are involved in developing agronomic practices and location-specific wheat varieties

⁶ Since February 8, 2024, stock limits are 500 metric tons (MT) for traders/wholesalers and 5 MT for retailers.

⁷ Bharat Atta is the brand name of the Indian government's wheat flour scheme unveiled in November 2023. It is a fortified wheat flour that is made with a blend of wheat, rice, and pulses. It provides protein, iron, and other essential nutrients. The scheme is implemented through the Public Distribution System (PDS) to help ensure easy access to affordable wheat flour for the target population.

with traits addressing crop duration, varied soil conditions, and improved grain qualities along with raising grain yield levels through traditional breeding. Biotechnology applications are limited to experimental marker-assisted breeding trials designed to develop resistance to biotic (i.e., diseases, insects, and other pests) and abiotic (temperature, precipitation, and relative humidity, among others) stresses.

Trade Policy: On May 13, 2022, India's Ministry of Commerce and Industry's (MOCI) [Directorate General of Foreign Trade \(DGFT\) prohibited exports of all wheat](#), for harmonized tariff system (HS) codes 1001, 1001.19, 1001.9910, and 1001.9920. Export restrictions will likely be extended further through the end of September 2024, and reviewed to ensure sufficient domestic supplies.

While there are no restrictions on wheat and wheat product imports, India's sanitary and phytosanitary (SPS) requirement that wheat samples drawn from a single consignment contain no more than 100 quarantine seeds (more than 50 quarantine seeds species specified), per 200 kg and other SPS issues effectively ban U.S. wheat exports to India. India's high import tariffs on wheat and wheat products effectively limits imports to western-style wheat products for high-end consumers and luxury hotels.

Tariffs: Import tariff for wheat (HS code 1001) and wheat products are unchanged since April 2019. Besides the basic custom duty, imports of wheat and wheat products (HS chapters 10 and 11) incur the Social Welfare Surcharge of 10 percent of the basic duty, while wheat products (HS chapter 19) incur a Goods and Services Tax (GST) duty of 12 percent equivalent to the local sales tax (see, Appendix IV). In the past when facing crop failure and lower domestic supplies, the Indian government has lowered import duties to supplement its consumption requirement through imports.

MARKETING

Before the government banned exports of wheat and wheat product in May/August 2022, India had emerged as a regional wheat supplier on competitive prices in MYs 2020/2021 to 2022/2023. India is set to be a net importer of wheat in MY 2024/2025 to augment domestic supplies and help re-build government-held wheat stocks with the aim of managing food inflation.

COMMODITY

RICE

Table 2. India: Commodity, Rice, Milled, Production-Supply-Distribution (PSD)

Rice, Milled	2022/2023		2023/2024		2024/2025	
Market Year Begins	Oct 2022		Oct 2023		Oct 2024	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	47832	47832	48000	47000	0	47800
Beginning Stocks (1000 MT)	34000	34000	35000	35000	0	36500
Milled Production (1000 MT)	135755	135755	134000	132000	0	135000
Rough Production (1000 MT)	203653	203653	201020	198020	0	202520
Milling Rate (.9999) (1000 MT)	6666	6666	6666	6666	0	6666
MY Imports (1000 MT)	0	0	0	0	0	0
TY Imports (1000 MT)	0	0	0	0	0	0
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	169755	169755	169000	167000	0	171500
MY Exports (1000 MT)	20245	20245	16000	15000	0	18000
TY Exports (1000 MT)	17733	17716	16500	16000	0	18000
Consumption and Residual (1000 MT)	114510	114510	118000	115500	0	120000
Ending Stocks (1000 MT)	35000	35000	35000	36500	0	33500
Total Distribution (1000 MT)	169755	169755	169000	167000	0	171500
Yield (Rough) (MT/HA)	4.2577	4.2577	4.1879	4.2132	0	4.2368

(1000 HA), (1000 MT), (MT/HA).

MY = Marketing Year, begins with the month listed at the top of each column.

TY = Trade Year, which for rice, milled begins in January for all countries. TY 2024/2025 = January 2025 to December 2025.

PRODUCTION

Assuming a normal 2024 monsoon season (June-September), FAS New Delhi forecasts India's MY 2024/2025 to increase to 135 MMT, from 47.8 million hectares planted area, with trend yield of 4.24 MT/hectare (rough rice). Despite relatively weak 2023 monsoon, farmers realized higher returns from rice over other crops on relatively firm prices on strong domestic demand and higher government MSP for paddy (un-milled) rice.

A weakening El Niño-Southern Oscillation (ENSO) following this summer of 2024, will support planting prospects for rice during the main kharif (fall harvested), rabi (winter planted), and the summer (2025) rice seasons on improved prospects of water availability. Planting this time is foreseen higher than last year, when the weak 2023 monsoon limited rice plantings. Nonetheless, plantings will still be slightly lower than the MY 2022/2023 record plantings (i.e., assuming the normal planting of competing crops). Timely and well-distributed 2024 monsoon rains are critical for forecast area planted and yields, as more than 40 percent of the rice acreage is largely rainfed (unirrigated). A delayed, erratic, or a below normal monsoon or floods and cyclones in the eastern and coastal rice belts can potentially lower forecast production by 5-10 percent, while

a well-distributed monsoon riding on the back of strengthening La Niña conditions in the subcontinent can raise production by 3-5 percent.

Post estimates MY 2023/2024 rice production at 132 MMT (111 MMT kharif, 12.5 MMT rabi, and 8.5 MMT summer rice), compared to previous year's record production of 135.8 MMT (110.5 MMT kharif, 15 MMT rabi and 10.3 MMT summer rice). Reports suggest significantly lower reservoir water availability.⁸ There is also a growing likelihood of higher summer temperatures in the upcoming months. Media reports already suggest that the standing rabi/summer rice crop is facing water stress in India's southern states, which is likely to affect the production prospects for the upcoming rabi/summer rice.

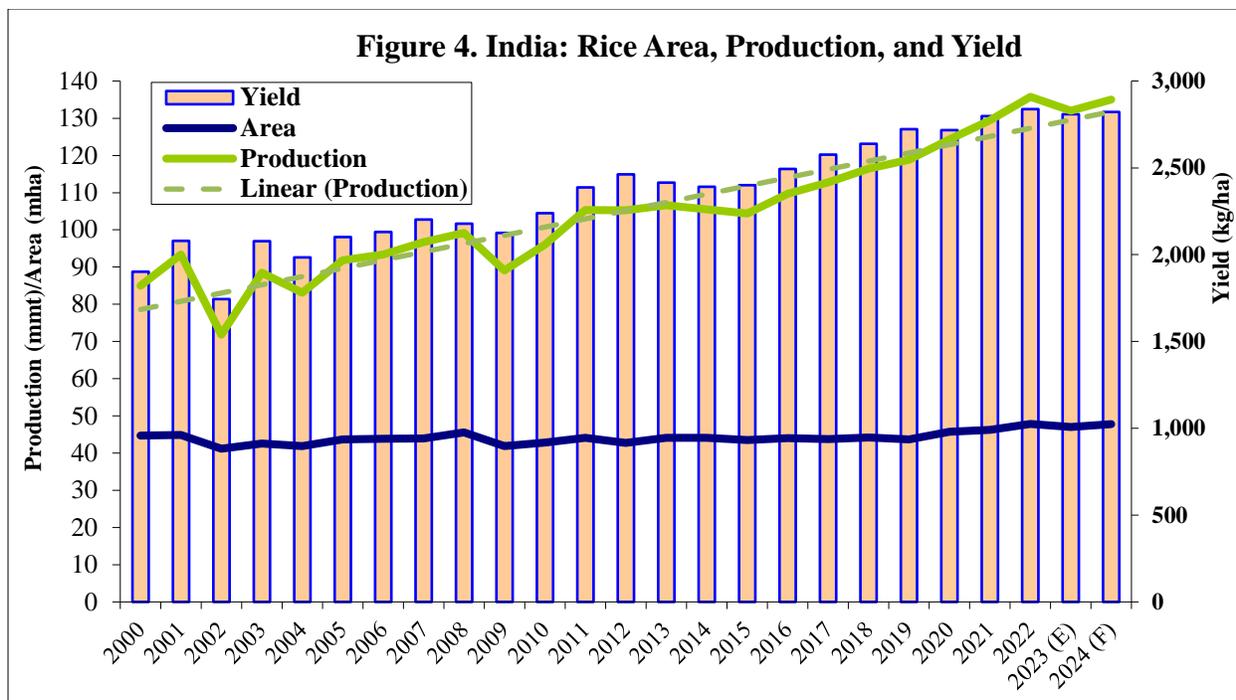
Rice is the leading staple food crop cultivated across the country. It contributes to over 41 percent of India's food grain production. Rice is predominantly a fall harvested kharif season crop as it requires significant water at the time of transplanting and early growth stages, which is provided by the southwest monsoon (June-September). Planting and progress of rice in India rides on the onset of southwest monsoon in June/early July and its subsequent progress through September. There is a smaller winter planted rabi (November-January) crop and a summer rice (February-April) crop cultivated in the irrigated India's eastern and southern states of West Bengal, Odisha, Andhra Pradesh, Telangana, and Tamil Nadu.

Basmati Rice: Long-grain aromatic *basmati* rice is grown in India's northern states of Punjab, Haryana, western Uttar Pradesh, Uttarakhand, and Himachal Pradesh. In MY 2023/2024, Basmati growers continued obtaining higher prices and profit margins for the second year in the row on strong export demand. Assuming normal 2024 monsoon and weather conditions, MY 2024/2025 basmati rice production is forecast higher at 12 MMT from 2.4 million hectares, compared to an estimated 10 MMT from 2.2 million hectares in MY 2023/2024.

Hybrid Rice: Typically cultivated in India's eastern and central states, for the government's MSP procurement program and exports to African markets. Hybrid rice continues to face the challenge of lower market acceptance and consequently is discounted due to lower consumer preference and milling quality against traditional cultivars. Seed industry sources report hybrid rice planting over the last few years has been relatively stagnant at around 2.2 million hectares. Recent expansion of MSP procurement in non-traditional MSP rice supplying states and growing export demand by the African markets has supported development of newer and higher yielding hybrid rice varieties. India lacks an approved biotech rice variety under cultivation.

Production Trends: Indian rice production over the last two decade is trending upwards reaching record level in MY 2022/2023 on record planting and yields. Rice acreage in the recent years has gained at the cost of other coarse grains and pulses due to expanding government MSP procurement in the non-traditional production states, development of higher yielding location specific varieties, and expansion in irrigation resources in several states.

⁸ The Indian government's [Central Water Commission report of March 7, 2024](#), reports live water storage availability of 73.3 billion cubic meter (BCM) compared to 80.4 BCL same time last year and 76.1 BCM average water storage availability of the last 10 years.



Source: Ministry of Agriculture and Farmers Welfare; FAS New Delhi estimate for 2023 (MY 2023/2024) and forecast for 2024 (MY 2024/2025).

While India’s overall rice yields are well below the world average, productivity varies between the rice producing states depending on the availability of irrigation resources, technology adoption, and agro-climatic conditions. India’s current MSP and food procurement policy has also supported rice planting and production prospects. Agriculture experts believe that rice planted area will peak at 48 million hectares, further productivity gains through the development of newer varieties and improved crop management practices will continue to fuel growth in India’s rice production over next few years.

Climate Change: Despite an increasing rice production trend, agricultural experts are concerned about the sustainability of the resource intensive rice production systems. The rice production system is seen as being vulnerable to climate change and the steady degradation of soil and water resource in several of the key rice growing states. These states follow intensive rice-based cropping systems (rice-wheat or rice-rice) and are evidencing deteriorating soil health, declining water tables, and the emergence of new diseases/pests. The growing frequency of extreme weather events, like sudden and sustained temperature increases, frequent and prolonged dry spells/heavy rains will affect the productivity and sustainability of the rice crop. The rice growing areas in India’s coastal regions are increasingly vulnerable to sea levels rising in response to global warming. Greater Himalayan glacier melt, due to rising temperatures will potentially affect the irrigation water supply from perennial rivers vital to India’s northern and eastern Gangetic states. Rising temperatures and extreme weather events raises the possibility of a new spectrum of pests and diseases affecting rice crop in future.

Research and Development: Public sector research aims to develop new rice varieties/hybrids and crop management practices to improve yields and manage several pests/diseases for various agro-climatic conditions. The private sector focuses on hybrid seed development, targeting

higher yields/quality issues and developing agro-chemicals and bio-pesticides that control pests and diseases. Public and private sector organizations are working to develop transgenic and gene-edited rice varieties/hybrids that incorporate resistance to various pests, diseases, and abiotic stress, but commercialization is years away. Ongoing rice research on application of biotechnology focuses on marker-assisted breeding and use of gene editing for specified traits.⁹

CONSUMPTION

FAS New Delhi forecasts MY 2024/2025 rice consumption and residual at 120 MMT, as expected more-than-sufficient government-held rice stocks will encourage the government to ensure sufficient rice in the domestic market out of food inflation concerns. The government has been scaling down the subsidized grain supplies under food security programs since January 2023.¹⁰ Post estimates MY 2023/2024 consumption at 115.5 MMT, marginally higher than previous year's 114.5 MMT.¹¹

Food and Seed Use: Rice is the main staple cereal for almost two-thirds of India's population. More than 4,000 rice varieties are grown across the country under varying agro-climatic conditions and catering to local consumer preferences. More than 90 percent of farmers are smallholders (less than two hectares) retaining nearly half of their produce for home consumption and seed use. Most of the high yielding/hybrid coarse grain rice is procured under the government MSP procurement program, with some purchased by private trade for exports and rice based processed products. Locally preferred paddy rice varieties are picked up by the private trade and after milling marketed in bulk and sold to consumers unbranded. Long grain basmati rice and specialty/fragrant types are procured by millers for export and sales in domestic market, both in branded packages and bulk packages.

While there is no reliable data or consistent long-term studies on consumption of staple food, experts report that India's per capita consumption of rice has been stagnant or declining with the government ensuring more-than sufficient grain supplies. With the growing economy and expanding middle class, along with Indian population's growing vulnerability to lifestyle diseases (e.g., diabetes, heart disease), consumers are aiming to replace high starch rice with higher nutritious food like dairy, meat, pulses, fruits, and vegetables.

Feed and Industrial Use: With expanding production and milling, the livestock feed industry is increasingly using broken rice and de-oiled rice bran, a byproduct of rice milling industry, as fillers for energy supplements in commercial feed (see Appendix X). In the recent years, some broken/damaged rice deemed unfit for human and animal consumption is being used for alcohol production, mostly by the potable liquor industry and ethanol for fuel blending, and the byproduct of distillers-dried-grains solubles (DDGS) is then sold to the feed industry. Over the last two years, government supplied inferior quality rice from government-held stocks to ethanol producers for fuel use, which was discontinued in August 2023, due to rising rice price

⁹ See, [GAIN-INDIA | IN2023-0073 | India Biotechnology Annual - 2023.](#)

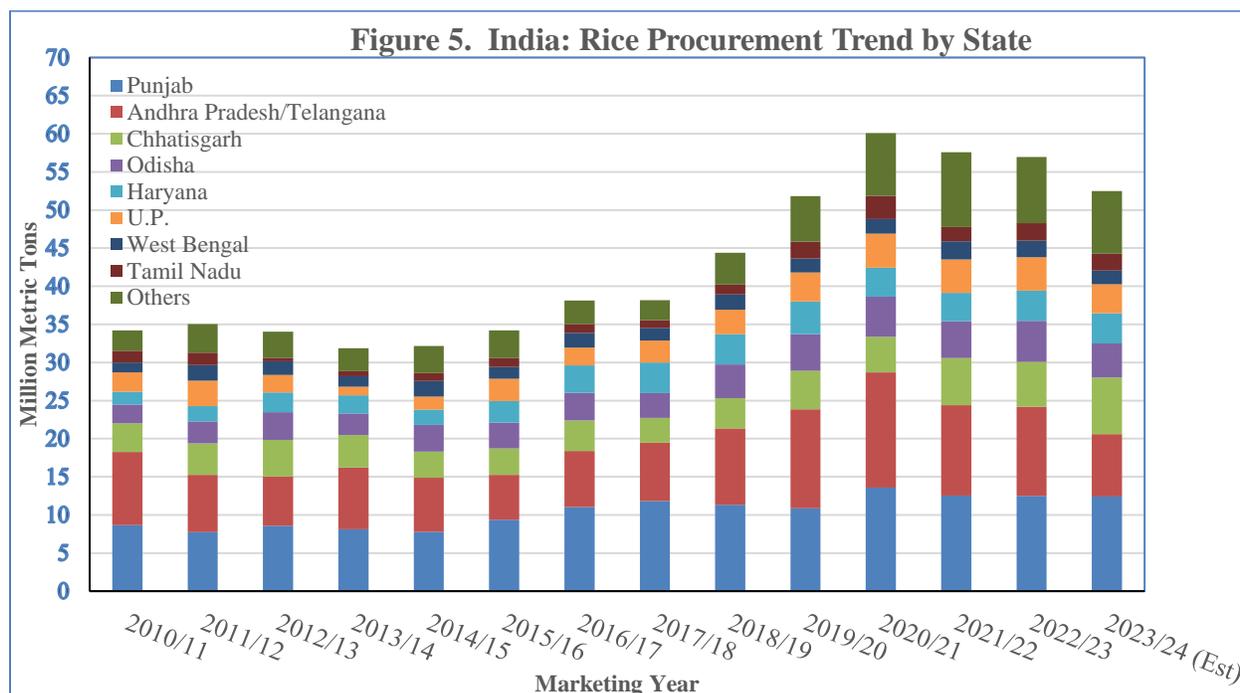
¹⁰ See, [GAIN-INDIA | IN2023-0015 | India Grain and Feed Update - February 2023.](#)

¹¹ See, [GAIN-INDIA | IN2024-0013 | India Grain and Feed Quarterly Update - March 2024.](#)

concerns.¹² While several new rice-based ethanol projects are in the pipeline, industry sources are concerned if whether the government will resume the supply of inferior rice for ethanol production given the depleted government-held food grain stocks.

Government Procurement and Food Security Programs: Rice is the dominant food grain in the government’s MSP procurement and distribution system under various food security programs. Over the last few years, the government has procured 40-48 percent of total production for supplies under various food security programs and open market sales ranging from 35 to 64 MMT (see, Appendix V).

Rice procurement varies from state-to-state, with the government purchasing un-milled paddy rice from farmers through various agencies and custom milling for storage and distribution through various government parastatals. Some of the Indian states also procure rice as levies on private mills. Buoyed by rising domestic harvest and expanding MSP procurement in non-traditional rice surplus states, government rice procurement has grown significantly over the last few years peaking at a record 60.3 MMT (48 percent of total production) in MY 2020/2021.



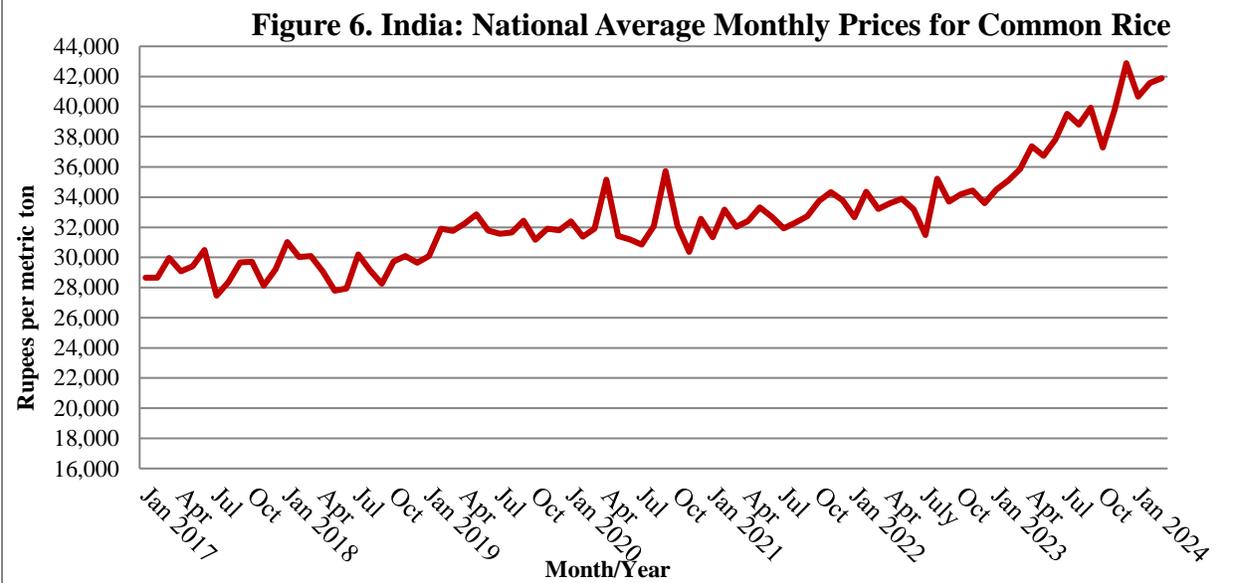
Source: Food Corporation of India; and FAS New Delhi estimate for MY 2023/2024.

Despite an estimated near-record harvest, firm domestic prices fueled by the government lowering monthly allocation of free food grain since December 2022 and continued strong export demand has slowed down MY 2023/2024 rice procurement. Official procurement of rice through March 10, 2023, is estimated at 44.2 MMT, compared to 47.8 MMT at the same time last year. Lower procurement occurred in most states, except for in Chhattisgarh and Punjab. An

¹² The Indian government supplied an estimated 2.65 MMT of rice to ethanol producers from June 2021 to July 2023 at an offer price of INR 20,000 (\$244)/MT. The program was discontinued from August 2023 out of rising domestic rice price concerns.

expected lower rabi and summer harvest should limit MY 2023/2024 procurement to 52.5 MMT, compared to last year’s 57 MMT. Despite the end of additional free food grain distribution under COVID-19 relief program since December 2022, the government has increased sales of rice through open market sales to ensure sufficient subsidized rice supplies, but overall offtake of government-held rice in MY 2023/2024 is likely to be significantly lower than last year.

Prices: Despite a near-record harvest and export restrictions on various types of rice, domestic rice prices have been escalating since the beginning of MY 2023/2024 with monthly prices showing double digit increase over last year’s level. Market sources attribute the price rise to government withdrawal of the additional 5 kg per person per month food grain allocation to the 880 million plus beneficiaries of the National Food Security Act commencing in January 2023.¹³



Source: [AgMarketNet](https://www.agmarketnet.com/), Ministry of Agriculture and Farmers Welfare; FAS New Delhi office research.

Domestic rice prices peaked at a record level in December 2023, due to speculation on the kharif rice harvest. While prices eased in January 2024, average market prices in the second quarter of MY 2023/2024 are reported to be 17-18 percent higher than the average prices during the same period last year. Market prices during the balance of marketing year are likely to remain steady on the expected lower rabi and summer rice harvests.

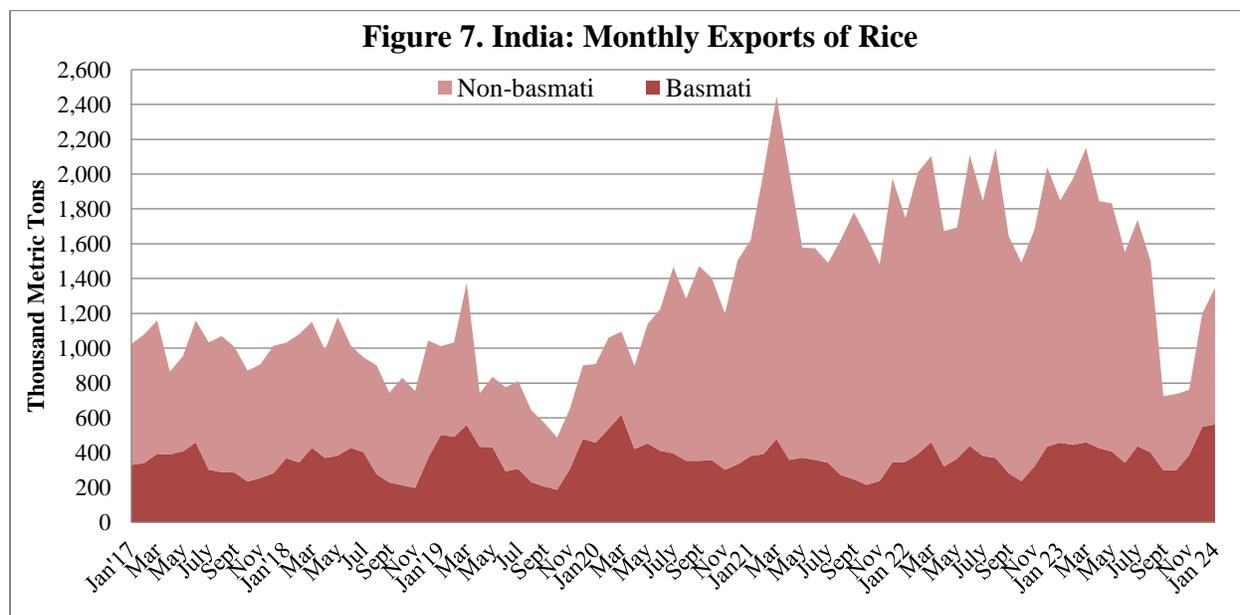
TRADE

Exports: Since the export ban on rice was removed in 2011, India has been the world’s leading rice exporter. Despite the various export restrictions on most of the coarse grain rice, export demand for Indian rice has remained strong with the global prices rising on India’s supply restrictions. FAS New Delhi forecasts India’s MY 2024/2025 rice exports higher at 18 MMT (12.5 MMT coarse rice and 5.5 MMT basmati rice) premised on steady global demand. It is foreseen that more-than sufficient domestic supplies may result in the government allocating

¹³ [Monthly government-rice offtake](#) in CY 2022 was estimated at 4.58 to 7.08 MMT per month compared to CY 2023 monthly offtake of 2.94 to 4.41 MMT per month.

additional export quota exemptions to the ban on export of broken/non-basmati white rice, and/or more relaxations of the existing export restrictions.

Based on the current pace of monthly exports, MY 2023/2024 rice exports are estimated to reach 15 MMT. According to the preliminary official trade statistics, rice exports in the first four months of MY 2023/2024 (October 2023 to January 2024) are estimated at 4.04 MMT, down nearly 43 percent compared to last year’s exports during the corresponding period due to the steep decline in exports of coarse grain rice.



Source: Monthly exports through January 2024, Directorate General of Commercial Intelligence (DGCIS).

Trade sources estimate that the Indian government has authorized about 2.39 MMT of non-basmati white rice and broken rice for exports to several neighboring south Asian countries and African countries, of which about 0.1 MMT has been shipped by the end of February 2024, with the balance to be shipped over next three months. With domestic rice prices in the double digits higher compared to last year’s level, the government is unlikely to significantly enhanced the export quota over the next quarter due to the ongoing general elections (a new government will be formed in June). The government may review additional allocations of the export quota in the last quarter of MY 2023/2024 (July-September 2023) based on the harvest realization of rabi/summer rice and domestic prices relative to last year.

With forecasted more-than- sufficient domestic supplies, particularly government rice stocks, the Indian government may review the existing export restrictive policies with the arrival of the MY 2024/2025 kharif rice harvest in October/November. The government may opt to not remove the export ban or export duty as these measures have not impacted the export demand for Indian rice. These have also created additional source of tax revenue for the government. However, the government is likely to allocate export quota exemptions to the ban to monitor the pace of exports and its impact on the domestic price movements.

Imports: India's high import tariffs and competitive local rice prices precludes imports of rice in near future, except for small quantities of specialty rice for exotic cuisines.

STOCKS

FAS New Delhi forecasts India's MY 2024/2025 rice ending stocks at 33.5 MMT (30 MMT government stocks and 3.5 MMT private stocks).¹⁴ This is premised on expected continued higher sales of government-held rice stocks out of food inflation concerns.

Government rice stocks have been on a steady increase since the beginning of 2023, after the government discontinued additional allocations under the COVID-19 relief programs. On [March 1, 2024, government-held rice stocks](#) were estimated at 58 MMT, more than 12 MMT higher than same time last year, and more than four times the government's buffer stocks of 13.58 MMT (on April 1).¹⁵ Assuming higher monthly offtake in the remaining marketing season due to food inflation concerns, MY 2023/2024 government ending stocks are estimated to end higher than last year. MY 2023/2024 ending stocks are estimated higher at 36.5 MMT compared to 35 MMT last year, which includes higher government stocks (33.7 MMT versus 31.5 MMT last year) and lower private stocks (2.8 MMT versus 3.5 MMT last year).

POLICY

Production Developments and Market Support: The Indian government and most state governments also follow the production and market support policies for rice same as described for wheat. There are various rice-specific development schemes such as the Special Rice Development Program (SRDP) and Promotion of Hybrid Rice (price subsidies on seed) from the central government. Several state governments have additional rice growers' specific programs, which subsidize improved seeds, mechanization (rice transplanters and harvesters), and water conserving practices.

Trade Policy: The Indian government has imposed export ban on broken rice (HS 1006.40.00 since September 8, 2022).¹⁶ Similarly, it has done the same with non-basmati white rice (HS 1006.30.90 since July 20, 2023).¹⁷ On August 25, 2023, the government announced a 20 percent export duty on parboiled non-basmati rice (HS 1006.30.10) and minimum export price restrictions on basmati rice (HS 1006.30.20). The Indian government also announced an export ban on broken rice and an export tax of 20 percent on white rice.¹⁸ However, the Ministry of Commerce and Industry/Directorate General of Foreign Trade through a series of notifications has allowed for export ban exemptions on broken rice and non-basmati white rice through National Cooperative Exports Limited to several neighboring South Asian and African

¹⁴ There is no published information about privately held rice stocks, these are reported to range of 2-6 MMT, depending on the export demand and local supply market situation.

¹⁵ [March 1, 2024, rice stocks](#) include 26.3 MMT milled rice and 47.3 MMT un-milled paddy rice compared to March 1, 2023, rice stocks of 21.1 MMT milled rice and 37.2 MMT un-milled paddy rice.

¹⁶ See, [GAIN-INDIA | IN2022-0081 | India Grain and Feed Update-October 2022](#)

¹⁷ See, [GAIN-INDIA | IN2023-0059 | India Bans Exports of Non-Basmati White Rice](#).

¹⁸ See, [GAIN-INDIA | IN2023-0067 | India Imposes a 20 Percent Export Duty on Parboiled Rice and Reviews Basmati Rice's Minimum Export Prices](#).

countries. Post trade sources report that the Indian government is likely to continue with its restrictive export policy through the end of 2024, fearful of food inflation. However, the government will continue to allow for additional export quota allocations of broken rice and non-basmati white rice based on domestic price movements.

Import tariffs on rice remains unchanged for last few years (see, Appendix IV). However, there are no other applied/applicable taxes, social surcharge, or GST on rice. India requires that rice import consignment be accompanied by a certificate from the exporting country that the rice is not genetically engineered. The import of genetically modified rice is effectively ban.

MARKETING

Indian high-quality basmati rice competes with long grain U.S. rice in the Middle East and in the European Union. India also exports basmati rice and other specialty/fragrant rice to the United States, with demand often driven by expats from India, the Middle East, and South Asia.

COMMODITIES

COARSE GRAINS – CORN, MILLET, SORGHUM, AND BARLEY

Table 3. India: Commodity, Corn, Production-Supply-Distribution (PSD)

Corn	2022/2023		2023/2024		2024/2025	
Market Year Begins	Nov 2022		Nov 2023		Nov 2024	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	10744	10744	10400	10800	0	10800
Beginning Stocks (1000 MT)	2395	2395	2658	2658	0	2008
Production (1000 MT)	38085	38085	35500	35500	0	37000
MY Imports (1000 MT)	0	0	50	50	0	500
TY Imports (1000 MT)	0	0	50	50	0	500
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	40480	40480	38208	38208	0	39508
MY Exports (1000 MT)	3122	3122	1800	1000	0	1000
TY Exports (1000 MT)	3195	3195	1800	1000	0	1000
Feed and Residual (1000 MT)	20600	20600	21200	21200	0	22000
FSI Consumption (1000 MT)	14100	14100	13200	14000	0	14800
Total Consumption (1000 MT)	34700	34700	34400	35200	0	36800
Ending Stocks (1000 MT)	2658	2658	2008	2008	0	1708
Total Distribution (1000 MT)	40480	40480	38208	38208	0	39508
Yield (MT/HA)	3.5448	3.5448	3.4135	3.287	0	3.4259

(1000 HA), (1000 MT), (MT/HA).

MY = Marketing Year, begins with the month listed at the top of each column.

TY = Trade Year, which for Corn begins in October for all countries. TY 2024/2025 = October 2024 - September 2025.

Table 4. India: Commodity, Millet, Production-Supply-Distribution (PSD)

Millet	2022/2023		2023/2024		2024/2025	
Market Year Begins	Nov 2022		Nov 2023		Nov 2024	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	9163	10250	9500	8950	0	9000
Beginning Stocks (1000 MT)	619	619	675	675	0	575
Production (1000 MT)	13506	13506	12200	12300	0	12800
MY Imports (1000 MT)	0	0	0	0	0	0
TY Imports (1000 MT)	0	0	0	0	0	0
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	14125	14125	12875	12975	0	13375
MY Exports (1000 MT)	0	0	0	0	0	0
TY Exports (1000 MT)	0	0	0	0	0	0
Feed and Residual (1000 MT)	1600	1600	1600	1600	0	1600
FSI Consumption (1000 MT)	11850	11850	10600	10800	0	11200
Total Consumption (1000 MT)	13450	13450	12200	12400	0	12800
Ending Stocks (1000 MT)	675	675	675	575	0	575
Total Distribution (1000 MT)	14125	14125	12875	12975	0	13375
Yield (MT/HA)	1.474	1.3177	1.2842	1.3743	0	1.4222

(1000 HA), (1000 MT), (MT/HA).

MY = Marketing Year, begins with the month listed at the top of each column.

TY = Trade Year, which for Millet begins in October for all countries. TY 2024/2025 = October 2024 to September 2025.

Table 5. India: Commodity, Sorghum, Production-Supply-Distribution (PSD)

Sorghum	2022/2023		2023/2024		2024/2025	
Market Year Begins	Nov 2022		Nov 2023		Nov 2024	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	3535	3535	4100	3650	0	3800
Beginning Stocks (1000 MT)	258	258	135	135	0	205
Production (1000 MT)	3814	3814	4400	4050	0	4200
MY Imports (1000 MT)	0	0	0	0	0	0
TY Imports (1000 MT)	0	0	0	0	0	0
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	4072	4072	4535	4185	0	4405
MY Exports (1000 MT)	37	37	50	30	0	50
TY Exports (1000 MT)	37	37	50	30	0	50
Feed and Residual (1000 MT)	450	450	450	450	0	500
FSI Consumption (1000 MT)	3450	3450	3800	3500	0	3700
Total Consumption (1000 MT)	3900	3900	4250	3950	0	4200
Ending Stocks (1000 MT)	135	135	235	205	0	155
Total Distribution (1000 MT)	4072	4072	4535	4185	0	4405
Yield (MT/HA)	1.0789	1.0789	1.0732	1.1096	0	1.1053

(1000 HA), (1000 MT), (MT/HA).

MY = Marketing Year, begins with the month listed at the top of each column.

TY = Trade Year, which for Sorghum begins in October for all countries. TY 2024/2025 = October 2024 to September 2025.

Table 6. India: Commodity, Barley, Production-Supply-Distribution (PSD)

Barley	2022/2023		2023/2024		2024/2025	
Market Year Begins	Apr 2022		Apr 2023		Apr 2024	
India	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	453	453	628	628	0	720
Beginning Stocks (1000 MT)	115	115	121	121	0	227
Production (1000 MT)	1371	1371	1913	1913	0	2150
MY Imports (1000 MT)	238	238	150	150	0	100
TY Imports (1000 MT)	253	253	100	100	0	100
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	1724	1724	2184	2184	0	2477
MY Exports (1000 MT)	3	3	7	7	0	10
TY Exports (1000 MT)	7	7	5	5	0	10
Feed and Residual (1000 MT)	100	100	250	250	0	300
FSI Consumption (1000 MT)	1500	1500	1500	1700	0	1800
Total Consumption (1000 MT)	1600	1600	1750	1950	0	2100
Ending Stocks (1000 MT)	121	121	427	227	0	367
Total Distribution (1000 MT)	1724	1724	2184	2184	0	2477
Yield (MT/HA)	3.0265	3.0265	3.0462	3.0462	0	2.9861

(1000 HA), (1000 MT), (MT/HA).

MY = Marketing Year, begins with the month listed at the top of each column.

TY = Trade Year, which for Barley begins in October for all countries. TY 2024/2025 = October 2024 to September 2025.

PRODUCTION

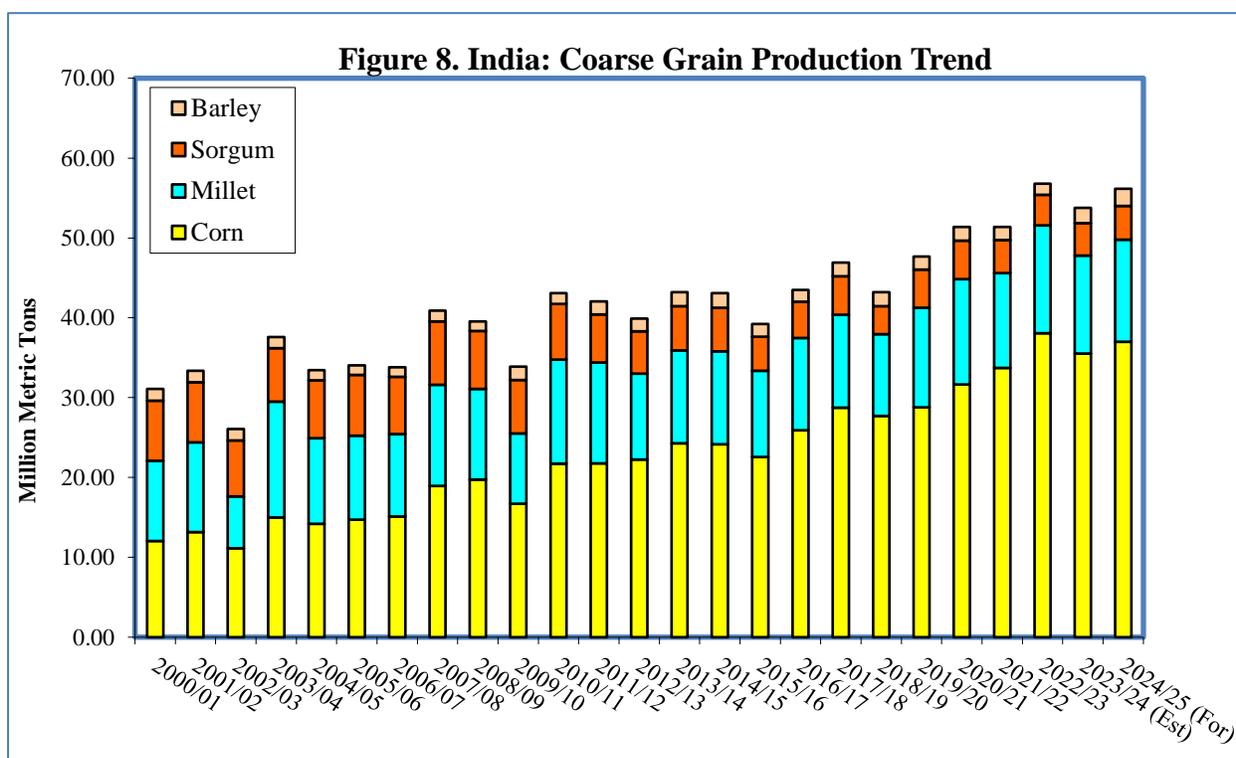
India's coarse grain production includes corn (66 percent), millet (23 percent), sorghum (7.5 percent), and barley (3.5 percent) with three-fourths of these agricultural commodities cultivated during the kharif season and the balance during rabi and summer seasons. With about 85 percent of the coarse grain cultivated under rainfed (unirrigated) area, coarse grain production is critically dependent on the performance of the southwest monsoon rains (June-September). With improving irrigation resources and higher productivity of hybrid varieties, corn is increasingly being cultivated in areas with 1-2 irrigation facilities supporting higher growth in corn production over last decade.

MY 2024/2025 Outlook: Assuming a normal 2024 southwest monsoon, MY 2024/2025 coarse grain production is forecast to recover to 56.2 MMT (near-record) from after dipping last year due to the weak 2023 monsoon. MY 2024/2025 (April-March) barley production to be harvested in April 2024, is forecast to recover to 2.2 MMT on reported higher planting due to strong prices in the previous season and favorable weather conditions. Relatively firm prices for corn, millet, and sorghum in the ongoing MY 2023/2024 season are likely to support planting in the upcoming marketing year. The MY 2024/2025 forecast for coarse grain production includes production of 37 MMT of corn (versus 35.5 MMT previous year), 12.8 MMT of millet (versus 12.3 MMT last year), 4.2 MMT of sorghum (versus 4.1 MMT last year) assuming trend yields, and 2.2 MMT of barley (versus 1.9 MMT last year) based on planting and crop condition reports to date. Nevertheless, performance of the 2024 monsoon, that is, a timely onset and rainfall

distribution across country and period (June-September) will be essential to achieve the forecast area and production of these crops.

MY 2023/2024 Production: Due to the weak and uneven 2023 monsoon rains, MY 2023/2024 coarse grain production is estimated lower at 53.8 MMT compared to previous year's record harvest (56.8 MMT) largely owing to lower harvest of corn and millet. Firm domestic prices in MY 2022/2023 bolstered record corn planting, but kharif corn yield were affected by sub-optimal rains at critical growth stages in central and southern India. Favorable weather conditions supported planting of winter planted rabi corn, but relatively dry conditions are likely to affect yields. Expected higher summer temperature and consequent drier conditions will also affect the small summer corn crop in the upcoming months. MY 2023/2024 corn production is estimated at 35.5 MMT, which includes 22.7 MMT kharif corn, 10 MMT rabi corn, and 1.7 MMT summer corn. Production of millet was also affected by the weak monsoon, but sorghum and barley production increased over last year on higher planting.

Production Trend: Over the last decade coarse grain production has shown an upward trend owing to strong growth in corn production, while sorghum, millet, and barley production have been stagnant, or fluctuating based on monsoon performance in the given year.



Source: Ministry of Agriculture and Farmers Welfare; FAS New Delhi estimate for MY 2023/2024 and forecast for MY 2024/2025.

Corn: Corn production has shown an upward trend over the last two decades on steady gains in area and productivity from newer improved hybrid seeds. Production growth has been supported by growing domestic demand from feed manufacturers and starch industry. Growing domestic usage has supported relatively competitive prices and encouraged farmers to cultivate corn, with

plantings peaking at record 10.8 MMT in MY 2023/2024. The private seed industry, including major multinational seed companies, are developing higher yielding corn hybrids (largely single cross) replacing the old existing cultivars and hybrids. Hybrid corn, which is mostly feed and industrial grade, accounts for 80-85 percent of the planted area, while food grade corn cultivated from traditional cultivars is grown in the north and is for household consumption.

Other Coarse Grains: Largely rainfed (unirrigated) sorghum and millet planting and production is dependent on the timely arrival of monsoon rains (Jun-July). These crops have not experienced significant productivity-enhancing technological (varietal or agronomic) breakthroughs, and/or demand for industrial or commercial usage compared to cereals like rice, wheat, corn and to some extent barley. Since the 1970s, rising production and supplies of subsidized rice and wheat through food security programs have resulted in consumer shifting away from sorghum and millet as staple foods, eroding the crop's profitability. Sorghum and millet cultivation has declined, with acreage shifting to more profitable cereals (rice, wheat, corn, and pulses) and other competing crops (oilseeds and cotton). Over the last few years, the government has promoted production and consumption of millet for its higher nutrition attributes and sustainable agriculture practice, but with limited success. Market sources report that it will take time for the existing programs, largely focused on highlighting nutritional attributes, to translate into higher market prices offering economic benefits to farmers to replace preferred crops. Barley is a small winter crop cultivated in northwestern India, with production of 1.4-2.2 MMT based on weather conditions and market demand. Traditionally, India produced six-row varieties of barley for food and feed use. Recently, a few high-quality/malting grade barley varieties have been developed through public-private breeding programs and are now replacing the traditional six-row varieties on rising demand from local breweries.

CONSUMPTION

MY 2024/2025 coarse grain consumption is forecast to increase to 55.9 MMT on expected growth in demand for corn for animal feed and industrial (starch and ethanol) usage, and expected recovery in consumption of millet, sorghum, and barley on forecast higher domestic production. Prior to the late 1960s Green Revolution of rice and wheat production, coarse cereals were staple cereal for rural households, but increasing supplies of subsidized government rice and wheat under food security programs have replaced coarse grains from Indian plate. The Indian government has been running marketing programs for millets focusing on its health attributes to create demand and thus support production in place of rice and wheat. Most of this corn is used for animal feed and industrial usage (starch and ethanol industries). Barley is used by the malting industry, but most of the millet and sorghum still goes for food use.

Steady demand from the poultry and aqua feed sector have supported corn consumption in MY 2023/2024. Higher usage of corn by animal feed industry has partially offset lower supplies of other coarse grains with MY 2023/2024 coarse grain consumption estimated at 53.5MMT, marginally lower than previous year. The starch industry's corn demand is also growing on strong domestic and export demand for textile products. The government has been promoting usage of corn for the ethanol blending program (EBP) by offering sufficient incentive prices for corn-based ethanol.¹⁹ After the government discontinued supplies of government rice to the

¹⁹ See [GAIN-INDIA | IN2023-0039 | India Biofuel Annual - 2023](#).

ethanol producers in July 2023, market sources report increase buying of corn by the ethanol producers for the EBP program.

There is a small but rapidly growing use of low-quality corn, other coarse grains, and spoiled/broken rice and wheat, estimated around 3-4 MMT, for potable liquor use for blended whiskies and other spirits. Food use of corn and other coarse grains has been on the decline in MY 2023/2024 on lower harvest of most coarse grains on adverse weather.

Animal Feed Use: India's growing economy and expanding middle class continues to fuel demand for animal protein, primarily poultry and dairy products. There are no reliable published official or industry statistics on animal feed production and ingredient use available. Industry sources report commercial feed accounts for about 60 percent of the total animal feed market. The commercial feed industry caters to the poultry (75 percent), aquaculture (15 percent), and dairy cattle (10 percent) feed sectors. Corn and soybean meal are the main ingredients used by the commercial feed industry, supplemented by broken rice and rice milling byproducts, wheat and wheat bran, other oilseed meals and coarse grains depending on relative prices of these ingredients (see, Appendix X). Small but growing quantities of domestically produced DDGS from grain-based ethanol plants are used by poultry and aquaculture feed manufacturers.

India's poultry and aquaculture industry depends primarily on commercial feeds. Dairy sector, largely backyard operations (two-to-three animals), consumes limited amounts of compound feed and depends mainly on home-made feed mixes - oil cakes, household food waste, spoiled/broken wheat and rice, and other cheap grain mixes – typically to feed to lactating cows/buffaloes during milking period. There is a growing trend among dairy farmers to replace low-yielding local dairy cattle breeds with higher yielding crossbred cows and buffaloes. These require higher-energy feeds, driving a 10-12 percent per annum growth in demand for commercial dairy feed in recent years (albeit from a lower base than the poultry/aqua sector).

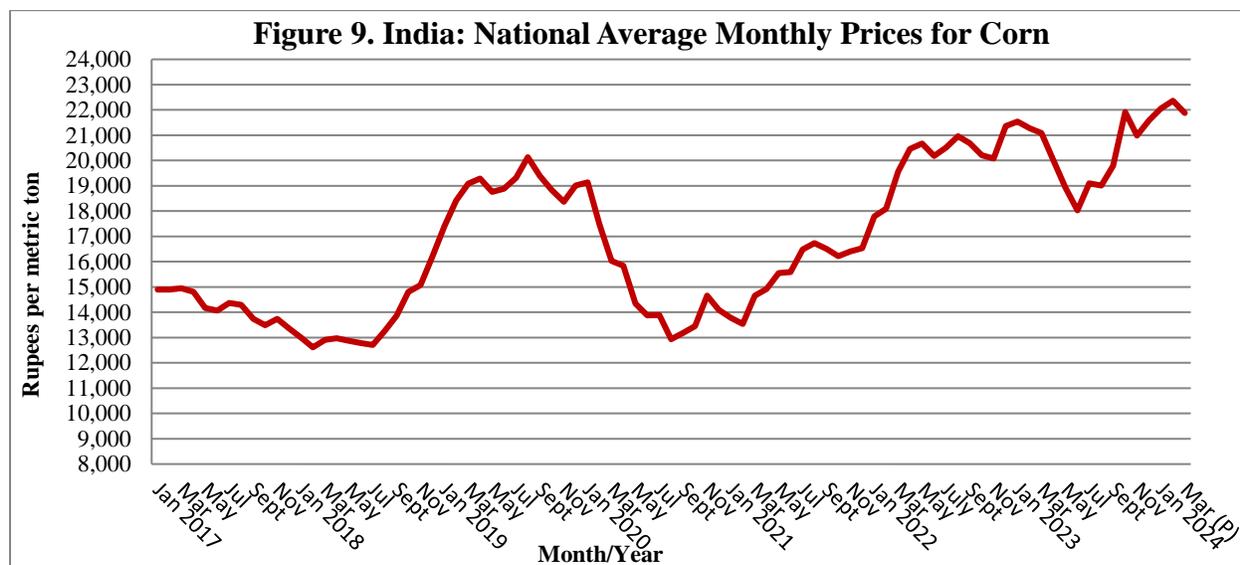
Food Use: Corn for human consumption (6-7 MMT) represents a small share of production compared to that for feed use. The other coarse grains – sorghum, millet, and barley – have a larger share of production going to food use. Now there is growing awareness about the high fiber and nutrient content benefits of sorghum and millet (nutri-cereals) among a small but growing population of health-conscious urban consumers incorporating these cereals in their diets. Since 2022, the Indian government has been aggressively promoting millet cultivation among growers and through consumer marketing campaigns.²⁰

Industrial Use: Some 4.0-4.5 MMT of corn is used by starch industry to cater to the textile industry needs. India's domestic ethanol program largely uses molasses (a sugar industry byproduct) as feedstock for ethanol production for fuel use. However, small quantities of ethanol are produced from rice milling industry waste (broken rice), and low-quality rice, wheat, corn, and coarse grains for potable liquor and other industrial uses. Small quantities of DDGS (300,000 MMT to 500,000 MMT) from these ethanol plants are used by the animal feed industry. The government has announced schemes to the private sector for setting up grain-based

²⁰ Government of India declared 2022 as the Year of Millet, and successfully proposed to the United Nations to declare 2023 as International Year of Millets (IYoM). Since 2022, the Indian government has rolled out [several programs](#) in the country and internationally to popularize millets. See, <https://www.mygov.in/campaigns/millet/>

ethanol plants by offering subsidized excess rice from government stocks. At the same time, it is incentivizing corn cultivation to supply ethanol producers and offering price incentives over molasses-based ethanol for the government parastatal fuel marketing companies. Sources report that some of these plants started coming online in 2022.

Prices: Corn prices have been on a steady rise since the beginning of MY 2023/2024. There has been speculation about the domestic harvest and strong demand. This has eased somewhat in March on reports of an anticipated good rabi harvest.



Source: [AgMarketNet](https://www.agmarketnet.com/), Ministry of Agriculture and Farmers Welfare.

Average spot prices in the first half week of March 2024, range between INR 21,200 (\$258) to 22,300 (\$272)/MT, with average prices up by nearly 4 percent compared to March 2023 prices, and significantly above the government MSP of INR 20,900 (\$255)/MT. Prices are expected to ease with the arrival of the rabi (April) crop in the next quarter (April-June). Corn prices are likely to remain steady in the balance of the marketing year on steady domestic demand.

TRADE

Corn: After being a major corn supplier to neighboring and south-east Asian countries over three years, India is no longer export competitive due to relatively firm domestic prices and weak global prices. Since August 2023, monthly exports have declined sharply below 100,000 MT per month level and are currently reported at 40,000-60,000 per month. Assuming unchanged price parity for Indian corn versus corn from other origins and continued strong domestic demand, FAS New Delhi forecasts MY 2024/2025 exports at 1 MMT unchanged from last year and imports higher at 500,000 MMT.

Assuming unchanged price parity for Indian corn in the traditional markets, Post estimates MY 2023/2024 exports at 1 MMT based on the recent pace of monthly exports, largely to Nepal, Bangladesh, and Bhutan. Official trade statistics report corn exports in the first two months (November-December) of MY 2023/2024 at 104,000 MT compared to 914,000 MT during the

same period last year. Trade sources indicate that Indian corn is outpriced (\$25-30/MT) by corn from other origins in the south Asian markets. With local corn prices unlikely to ease in the coming months, exports will remain weak in MY 2023/2024, with limited to trade with neighboring countries. MY 2022/2023 corn exports are estimated at barely 1 MMT.

Other Coarse Grains: India exports small quantities of feed grade sorghum and barley to neighboring countries and the Middle East. However, exports in MY 2023/24 remained weak due to high prices on low domestic supplies. Barley imports in MY 2024/2025 are forecast lower at 100,000 MT compared to 150,000 MT last year on foreseen improved domestic supplies.

POLICY

Production and Market Support: Central government production and market support programs for coarse grains are relatively small compared to wheat and rice. MSP procurement is limited to a few states and restricted to millet for the NFSA and food security programs, typically to millet. The Indian government recently shifted focus on promoting production and consumption of millet as a nutri-cereal and sustainable crop option against the existing rice-wheat cropping system. Some state governments have declared to support MSP procurement of millets and millet usage in various food security programs, but low domestic production resulted in limited procurement and distribution last year. In the absence of any revolutionary productivity enhancing technologies, it will take some time for the millet campaign to make millet cultivation an economically viable option to the rice-wheat cropping system for farmers.

Trade Policy: The import duties on coarse grain have remained unchanged over the last few years (see, Appendix IV). Imports of these commodities are allowed subject to the effective import duty and meeting phytosanitary conditions specified in the Plant Quarantine (Regulation of Imports into India) Order (2003).²¹ Imports of any GE product (GE crops and products derived from GE crops) are subject to approval by the Genetic Engineering Appraisal Committee (GEAC) (biotechnology regulatory agency). The GEAC has not approved imports of GE corn and other coarse grains or byproducts. Corn imports fall under a tariff-rate quota (TRQ), which requires the importer to obtain a MOCI issued TRQ allocation certificate in accordance with the Export-Import Facilitation Committee procedures. The government's advance licensing scheme permits duty-free corn imports by processors (e.g., starch manufacturers), against export commitments for processed-end products meeting value-addition norms. There are no export restrictions on corn, millet, sorghum, and barley.

MARKETING

Economic growth, a rising middle class and changing food habits are likely to continue to fuel demand growth for corn and barley estimated in the range of 5-8 percent per annum in recent years. With limited scope for expanding acreages and productivity, India will need to import corn and corn products (e.g., DDGS) in the next few years, and increase imports of barley for the malting. Phytosanitary conditions (weed seeds, ergot) and other SPS issues and the non-approval of GE feed corn, effectively bans U.S. coarse grain exports to India.

²¹ Imports of corn and other coarse grains are duty-free from less developed countries.

Appendix I. India: Government Wheat Procurement, Offtake and PDS Price

Marketing Year	Production	Govt. Procurement ¹	MSP	Govt. Total Cost	Offtake from Govt. Stocks	PDS Issue Price					
						Million Tons	Million Tons	INR/MT	INR/MT		
									APL	BPL	AAY/NFSA
2010/11	80.80	22.51 (27.8)	11,000	14,944	23.07	6,100	4,150	2,000			
2015/16	86.53	28.09 (32.5)	14,500	21,274	31.57	6,100	4,150	2,000			
2016/17	87.00	22.96 (26.4)	15,250	21,970	29.25	na ²	na ²	2,000			
2017/18	98.51	30.82 (31.3)	16,250	22,979	25.30	na ²	na ²	2,000			
2018/19	99.87	35.80 (35.8)	17,350	23,597	31.65	na ²	na ²	2,000			
2019/20	103.60	34.13 (32.9)	18,400	26,231	27.19	na ²	na ²	2,000			
2020/21	107.86	38.99 (36.1)	19,250	27,318	36.39	na ²	na ²	2,000			
2021/22	109.59	43.34 (39.5)	19,750	24,675	50.55	na ²	na ²	2,000			
2022/23	104.00	18.79 (18.1)	20,150	26,549	28.86	na ²	na ²	2,000			
2023/24	110.55	26.20 (23.7)	21,250	27,305 ⁴	27.00 ³	na ²	na ²	2,000			
2024/25	112.50 ³	30.00 (26.7) ³	22,750	na	na	na ²	na ²	2,000			

Source: Ministry of Agriculture and Farmers Welfare, Food Corporation of India, and Indian government budget.

Notes:

APL - Above Poverty Line

BPL - Below Poverty Line

AAY - Poorest of Poor

NFSA - National Food Security Act

1/: Figure in parenthesis is Indian government procurement as percentage of total food production.

2/: NFSA implemented in most states replacing APL/BPL by end of 2015.

3/: FAS New Delhi estimate.

4/: Indian government 2023 budget estimate.

Appendix II. India: Commodity, Wheat, Prices Table

Prices In	INR	Per UOM	MT	
Year	2022	2023	2024	% Change
Jan	22,251	26,734	26,466	-1.0
Feb	21,704	26,058	24,932	-4.3
Mar	22,582	23,810	25,105	5.4
Apr	21,580	23,634		
May	21,895	23,450		
Jun	21,893	24,641		
Jul	22,338	24,911		
Aug	23,868	25,139		
Sep	24,137	25,481		
Oct	25,269	25,811		
Nov	26,284	27,191		
Dec	26,240	26,784		
Exchange Rate	82.90	Local Currency/USD		
Date of Quote	03/05/2024	MM/DD/YYYY		

National Average Monthly Wholesale Price of Wheat

Source: [AgMarketNet, Ministry of Agriculture and Farmers Welfare.](#)

Appendix III. India: Commodity, Wheat, Export Trade Matrix

Time Period	April-March	Units	MT
Exports for	MY 2022/2023		MY 2023/2024 ¹
United States	31,134	United States	18,768
Others		Others	
Bangladesh	1,298,242	Nepal	118,329
Indonesia	883,282	Canada	20,013
United Arab Emirates	545,045	Australia	15,073
South Korea	505,519	Maldives	12,325
Yemen	264,686		
Thailand	215,468		
Sri Lanka	200,109		
Philippine	176,052		
Oman	138,910		
Somalia	136,722		
Total for Others	4,364,035	Total for Others	165,740
Others not Listed	982,206	Others not Listed	30,913
Grand Total	5,377,375	Grand Total	215,421

Source: Trade Data Monitor; FAS New Delhi office research.

Note: TDM data includes wheat product in wheat grain equivalent.

¹ Provisional Date for the period October-December 2023.

Appendix IV: Import Tariffs on Major Grains and Products

HS Code	Description	Basic Duty (BD) on Assessable value	Social Welfare Surcharge (SWS) on BD	Integrated GST (IGST) on AV+BD+SWS	Total Effective Duty (BD+SWS+IGST)
Wheat and Wheat Products					
1001.1900	Wheat	40 percent	10 percent	Nil	44 percent
1001.9920	Meslin	100 percent	Nil	Nil	100 percent
1101.0000	Wheat and Muslin Flour	30 percent	10 percent	Nil	33 percent
1902.1900	Uncooked pasta, not stuffed or otherwise prepared not containing eggs	30 percent	10 percent	12 percent	48.96 percent
1902.3000	Other Pasta	30 percent	10 percent	12 percent	48.96 percent
1902.4000	Couscous	30 percent	10 percent	12 percent	48.96 percent
Rice					
1006.1090	Paddy Rice in Husk	80 percent	Nil	Nil	80 percent
1006.2	Husked (brown) rice	80 percent	Nil	Nil	80 percent
1006.3	Semi milled or wholly milled rice	70 percent	Nil	Nil	70 percent
1006.4	Broken Rice	80 percent	Nil	Nil	80 percent
Coarse Grains					
1003	Barley	Nil	Nil	Nil	Nil
1005	Corn*	50 percent	10 percent	Nil	55 percent
1007	Grain Sorghum	50 percent	10 percent	Nil	55 percent
1008.2100 - 1008.2900	Various Millets	50 percent	10 percent	Nil	55 percent

Note: * India has a TRQ of 500,000 on imports of corn at 15 percent basic duty. Exchange rate on March 5, 2024, USD 1.00 = INR 82.90.

Appendix V. India: Government's Rice Procurement, Offtake and PDS Price

Marketing Year	Production	Govt. Procurement ¹	MSP for Paddy (Un-milled Rice Common variety)	Govt. Total Cost	Offtake from Govt. Stocks in Indian Fiscal Year (Apr/Mar)	PDS Issue Price		
						INR/MT		
October - September	Million MT	Million MT	INR/MT	INR/MT	Million MT	APL	BPL	AA Y/NFSA
2010/11	95.98	34.20 (35.6)	10,000	19,831	29.96	7,950	4,150	3,000
2011/12	105.30	35.04 (33.3)	10,800	21,229	32.05	7,950	4,150	3,000
2012/13	105.24	34.04 (32.3)	12,500	23,049	32.64	7,950	4,150	3,000
2013/14	106.60	31.85 (29.9)	13,100	26,155	29.20	7,950	4,150	3,000
2014/15	105.48	32.17 (30.5)	13,600	29,436	35.57	7,950	4,150	3,000
2015/16	104.41	34.22 (32.8)	14,100	31,255	32.13	7,950	4,150	3,000
2016/17	109.70	38.11 (34.7)	14,700	31,050	33.71	na ²	na ²	3,000
2017/18	112.76	38.19 (33.9)	15,500	32,803	34.67	na ²	na ²	3,000
2018/19	116.48	44.40 (38.1)	17,500	34,441	34.23	na ²	na ²	3,000
2019/20	118.87	51.83 (43.6)	18,350	37,201	35.14	na ²	na ²	3,000
2020/21	124.37	60.25 (48.4)	18,880	39,393	56.49	na/2	na/2	3,000
2021/22	129.47	57.59 (44.5)	19,600	35,625	55.06	na/2	na/2	3,000
2022/23	135.76	56.95 (41.9)	20,600	38,582	63.81	na ²	na ²	3,000
2023/24	132.00 ³	52.5 (39.8) ³	22,030	39,180 ⁴	40.00 ³	na ²	na ²	3,000
2024/25	135.00 ³	na	na	Na	na	na ²	na ²	3,000

Source: Ministry of Agriculture and Farmers Welfare, Food Corporation of India, and Indian government budget.

Notes

APL - Above Poverty Line

BPL - Below Poverty Line

AA Y - Poorest of Poor

NFSA-National Food Security Act

1/: Figure in parenthesis is Indian government procurement as percentage of total food production.

2/: NFSA implemented in most states replacing APL/BPL by end of 2015.

3/: FAS New Delhi estimate.

4/: Indian government budget estimate.

Appendix VI. India: Commodity, Rice, Milled, Prices Table

Prices In	Rupees	Per UOM	MT	
Year	2022	2023	2024	% Change
Jan	32,666	34,513	40,667	17.8
Feb	34,356	35,091	41,575	18.5
Mar	33,223	35,847	41,888	16.9
Apr	33,601	37,369		
May	33,882	36,738		
Jun	33,191	37,818		
Jul	31,483	39,525		
Aug	35,220	38,804		
Sep	33,709	39,925		
Oct	34,186	37,292		
Nov	34,445	39,776		
Dec	33,602	42,886		
Exchange Rate	82.90	Local Currency/USD		
Date of Quote	03/05/2024	MM/DD/YYYY		

National Average Monthly Wholesale Price of Common Coarse Grain Wheat

Source: [AgMarketNet, Ministry of Agriculture and Farmers Welfare.](#)

Appendix VII. India: Commodity, Rice Milled, Export Trade Matrix

Time Period	Oct-Sep	Units	MT
Exports for	MY 2022/2023		MY 2023/2024 ¹
United States	268,690	United States	73,746
Others		Others	
Benin	1,821,138	Saudi Arabia	272,266
Saudi Arabia	1,209,920	Iran	174,796
Senegal	1,133,001	Iraq	162,748
Cote d'Ivoire	954,733	United Arab Emirates	130,682
Guinea	924,796	Cote d'Ivoire	122,895
Togo	891,984	Vietnam	118,631
Kenya	822,127	Liberia	108,311
Iran	772,656	Benin	102,778
Vietnam	686,759	Somalia	86,333
Iraq	609,114	Yemen	81,919
Total for Others	9,826,228	Total for Others	1,361,359
Others Not Listed	10,147,148	Others Not Listed	1,237,783
Grand Total	20,242,066	Grand Total	2,672,888

Source: Trade Data Monitor; FAS New Delhi office research.

Note: TDM data includes rice in milled rice equivalent.

¹ Provisional Date for the period October-December 2023.

Appendix VIII. India: Commodity, Corn, Prices Table

Prices In	INR	Per UOM	MT	
Year	2022	2023	2024	% Change
Jan	17,791	21,535	22,059	2.4
Feb	18,092	21,273	22,364	5.1
Mar	19,560	21,081	21,876	3.8
Apr	20,461	19,996		
May	20,667	18,940		
Jun	20,175	18,029		
Jul	20,508	19,097		
Aug	20,966	19,016		
Sep	20,690	19,796		
Oct	20,210	21,912		
Nov	20,076	20,980		
Dec	21,365	21,592		
Exchange Rate	82.90	Local Currency/US\$		
Date of Quote	03/05/2024	MM/DD/YYYY		

National Average Monthly Wholesale Price of Corn.

Source: [AgMarketNet, Ministry of Agriculture and Farmers Welfare.](#)

Appendix IX. India: Commodity, Corn, Export Trade Matrix

Time Period	Nov-Oct	Units	MT
Exports for	MY 2022/2023		MY 2023-2024 ¹
United States	8	United States	0
Others		Others	
Vietnam	1,437,116	Nepal	69,411
Bangladesh	920,732	Bangladesh	17,422
Nepal	401,497	Bhutan	5,982
Malaysia	142,898	Yemen	1,783
Sri Lanka	94,421	Oman	1,482
Bhutan			
Oman	20,201		
United Arab Emirates	14,580		
Philippines	12,342		
Yemen	8,324		
Total for Others	3,052,111	Total for Others	96,080
Others Not Listed	70,170	Others	7,744
Grand Total	3,122,289	Grand Total	103,824

Source: Trade Data Monitor; FAS/New Delhi Office Research.

¹ Provisional data for the period November - December 2023.

Appendix X. India: Usage of Grains, Oil Meals, and Other Feed Ingredients

Commodity	Quantity (MMT)	Comments
Corn	18.0-20.0	Largely commercial feed for poultry and aquaculture sector.
Wheat	6.0-7.0	Largely farm feed mixes and commercial feed for dairy sector.
Other Coarse Grains	2.0-2.2	Largely farm feed mixes and some for commercial feed for all sectors.
Soybean Meal	6.3-6.7	Largely commercial feed for poultry and aquaculture sector.
Cotton Seed & Meal	4.4-4.5	Largely farm feed mixes and some for commercial feed for dairy sector.
Rapeseed Meal	4.4-4.7	Largely commercial feed and some farm feed mixes for all sectors.
Peanut Meal	1.4-1.6	Largely commercial feed and some farm feed mixes for all sectors.
Other Oil Meals	0.8-1.0	Largely commercial feed and farm feed mixes for all sectors.
Broken rice/ de-oiled rice bran ¹	7.0-7.5	Largely commercial feed for poultry and aquaculture sector.
Wheat Bran ²	6.0-7.0	Largely farm feed mixes and some commercial feed for dairy sector.
DDGS	0.5-0.8	Compound feed for poultry sector.
Total	57.0-62.0	Compound feed accounts for about 60 percent of the total share

Source: FAS New Delhi office research; trade sources.

¹ Byproduct of the rice mills.

² Byproduct of the roller flour mills.

Attachments:

No Attachments