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INDUSTRY OUTLOOK

INDIAN RICE INDUSTRY OUTLOOK FOR 2024

25 November 2024

1. Introduction

Rice is an important source of food production in the world. Globally, around 525 million tons of rice is produced each year. China (28 per cent), India (26 per cent) and Bangladesh (7 per cent) are the major producers, collectively producing more than 318 million tonnes[1]. In India, 332.3 million tonnes of foodgrains were produced in 2023-24. Rice accounted for 137.8 million tonnes of the production, constituting more than 40 per cent of the total food grains production[2].

Rice is a staple for more than half of the world population, particularly in Asia and developing countries. It is the most common staple food in India. It forms 55.3 per cent of rural and 53.20 per cent of urban per capita cereal consumption[3]. Rice has an average per capital monthly consumption of 5.32 kg in rural and 4.281 kg in urban areas. In states such as Andhra Pradesh, Assam, Chhattisgarh, Odisha, Tamil Nadu and Telangana, rice makes up greater than 90 per cent of monthly cereal consumption.

Rice is obtained from paddy plants. Paddy is cultivated both as a kharif and rabi crop in India. As a kharif crop, rice is grown during the monsoon season (June-September) while as a rabi crop, it is grown during the winter season (November-March). Kharif and Rabi paddy production makes up 82 per cent and 10.5 per cent of total paddy production in India.

2. Demand-Supply Outlook

2.1 Global Outlook

There has been an upward revision in forecast of global rice production by Food and Agriculture Organization (FAO), International Grain Council (IGC) and United States Department of Agriculture (USDA) for 2024-25.

Due to increased rice production, lower domestic use and stagnant exports, a rise in stock is forecasted by FAO and AMIS. While USDA forecasts stocks to marginally decrease in 2024-25.

Table 1: Global Rice Outlook

	FAO-AMIS			IGC			USDA		
Year	22-23	23-24 (E)	24-25 (F)	22-23	23-24 (E)	24-25 (F)	22-23	23-24 (E)	24-25 (F)
Supply	720.0	728.2	738.2	693.2	694.2	701.4	756.3	752.0	755.7
Opening Stocks	194.3	193.8	199.0	176.7	172.4	173.2	183.7	179.8	177.4
Production	525.6	534.4	539.2	516.6	521.8	528.3	516.0	520.7	527.3
Domestic Utilization	526.2	526.5	535.6	520.8	521.0	525.2	521.9	520.2	524.2
Trade/ Exports	52.9	52.1	54.3	52.4	53.3	53.7	53.3	55.5	54.0
Closing Stocks	193.8	199.0	206.0	172.4	173.2	176.2	179.8	177.4	177.2

* Values in Million tonnes; E- Estimate, F-Forecast, Data source: AMIS Market Monitor

2.2 Domestic Outlook

India is the second largest producer and largest exporter of rice in the world. India produces 26 per cent of the total rice production in world and contributes 35 per cent to the global rice trade.

Domestic rice production has increased from 129.47 million tonnes in 2021-22 to 135.7 million tonnes in 2022-23. Production is forecasted to increase to 137.8 million tonnes in 2023-24.

Table 2: Rice Production in India				
	2020-21	**2021-22**	**2022-23**	**2023-24**
Kharif	105.208	111.001	110.512	113.259
Rabi	19.16	18.471	15.004	14.601
Summer	@	@	10.24	9.965
Total	124.368	129.472	135.76	137.8
Values in Million Tonnes, Data source: 25 Sept 2024, Final Estimate of Production of Food Grains (DA&FW) @ summer rice production included in Rabi production				

The increase in paddy sown area from 404.50 lakh hectare in 2023 to 414.50 lakh hectare in 2024 shows that overall rice production in the current year would be record highest.

Table 3: Paddy Sown				
Kharif	**Normal Area (DES) 18-19 to 22-23**	**Area Sown (Hectare)**		**Change (%)**
		2023	**2024**	
Paddy	401.55	404.5	414.5 (1024.25)	+ 10%
*Value in Lakh Hectare (lakh acre) Paddy Yield: 4.229 tonne/hectare (in India) with paddy to rice conversion of 0.67x Data source: Progress of area coverage under Kharif crops as on 27.08.2024, MoAFW, Govt. of India				

The stock of rice in central foodgrain food which had remained within stock limits (operational + strategic stock) in the past years exceeded the full capacity in 2024-25, implying there would be no shortage in rice supply to meet unexpected contingency.

Table 4: Rice Stocks					
Rice	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
Stocks in Central Pool	27.171	29.689	31.707	25.349	32.614
*Values in Million metric tonnes, Data source: FCI Stock Position as of 1 July of each year, **FCI stock limit mandate 31.54 million tonne of Rice stock: Operational Stock (11.54) +Strategic Reserve (20) as of July each year, while October Stock to be 28.25 (8.25+ 20) Million tonnes					

2.3 Domestic Balance Sheet

Overall rice production has been consistently increasing over the years. The surplus rice production has translated into increasing consumption and increase in central stock. Surplus rice production has made India an exporter, with rice exports constituting the major component of the agricultural exports.

Table 5: Domestic Balance Sheet of Rice			
Rice	**2021-22**	**2022-23**	**2023-24***
Carry in	35.40	41.29	55.61
Production	129.47	135.75	137.82
Imports	0	0	0
Total Availability	164.87	177.04	193.43
Consumption	106.20	101.00	100.40
Exports	17.38	20.43	14.88
Total Usage	123.58	121.43	115.28
Carry Out	41.29	55.61	78.11
*Values in Million metric tonnes Data source: Agricultural Market Intelligence Centre, PJTAU			

3. Rice Prices - Index

3.1 Global Rice Index

Table 6: FAO Rice Index Values							
Index	**2019**	**2020**	**2021**	**2022**	**2023**	**Aug-2024**	**Sept 2024**
FAO All Rice Index	101.5	110.2	105.8	108.8	132	*134*	*133.1*
Indica Index	100.6	114.4	112.2	110.2	138.1	*145.8*	*144*
Aromatic Index	106	97.6	86.9	102	113.5	*105.8*	*103*
Japonica Index	80.4	89.6	101.4	129.4	136.8	*98.3*	*97.8*
Base:2014-16, Aromatic Index (consider movement in prices of basmati rice) Data source: FAO Rice Price Update | Food and Agriculture Organization							

The FAO All Rice index (FARPI) averaged 133.1 points in September-2024, down 0.9 per cent from August-2024. The drop in rice index was driven by the decline in aromatic and indica rice prices.

The Aromatic and Indica index have seen large variation in the past 3 years. The FAO Indica index has risen from 110.2 in 2022 to 145.8 in 2024. Changes in India's rice export policy was the primary driver in Indica index. Bumper crop production, removal of export ban on white rice, and lowering of export tax will cause the indica and FARPI index to reduce in the future.

3.2 Domestic Prices Index

Domestic rice and paddy prices are monitored as components of Wholesale Price Index (WPI) and Consumer Price Index (CPI).

The overall WPI has increased from 121.8 in 2019-20 to 151.4 in 2023-24 representing an WPI inflation of 24.3 per cent over the past 5 years while WPI Food Index has increased by 21.8 per cent in the corresponding period. Paddy prices have increased by 16.19 per cent while price of non-basmati rice have increased by 17.46 per cent. The rise in prices of paddy and non-basmati have been lower than WPI inflation. But a larger increase in price of basmati rice compared to WPI has been seen during the corresponding period.

Table 7: WPI Index Values (Fiscal Year)

Commodity name	Weight	19-20	20-21	21-22	22-23	23-24	%change 5 Yrs
WPI Overall	*100.00*	121.8	123.4	139.4	152.5	151.4	24.30
FOOD INDEX	*24.38*	147.6	153.4	163.8	174.2	179.8	21.81
Paddy	*1.43*	160.5	163.5	162.3	170.7	186.5	16.19
Rice, non-Basmati	*0.94*	154.6	154.4	152.6	165.9	181.6	17.46
Basmati rice	*0.43*	114.7	111.8	117.5	131.1	146.8	27.98
Rice products	*0.07*	142	141.9	146	157.6	180.8	27.32

Base:2011-12
Data source: Ministry of Commerce and Industry

Rice is a key component of CPI and its allied index Consumer Food Price Index (CFPI). CFPI is constructed from the components of CPI and has a weightage of 47.25 per cent. It tracks the food inflation in the economy. Rice has a weightage of 4.71 per cent in the CPI. In CFPI, rice forms a vital component having a weightage of around 10 per cent.

CPI has increased from 154.7 in August-2020 to 193 in August-2024 representing an CPI inflation of 24.76 over the past 5 years while CPFI has increased by 28.89 per cent in the past 5 years, implying that food inflation has been rising at higher rate than overall inflation. Further, inflation of rice-other sources has increased at a faster rate than both CPI and CFPI.

The CFPI inflation growth has been above 8 per cent in the current year, peaking at 9.36 per cent in June-2024. It reduced to 5.66 per cent in August-2024 due to efforts taken by government to control food inflation. But provisional estimate of CFPI expects it to increase to 10.87 per cent in October-2024. To contain food inflation various efforts were undertaken, in case of rice, initiatives such as free supply of food

grains under Pradhan Mandri Garib Kalyan Yojana, selling of Bharat branded food grains were implemented. The full effect of these initiatives will be felt in future.

Table 8: CPI -Index Values							
Commodity name	**Weight**	**Aug-20**	**Aug-21**	**Aug-22**	**Aug-23**	**Aug-24**	**%change 5 Yrs**
CPI (Overall)	*100.00*	154.7	162.9	174.3	186.2	193.0	24.76
CPFI	*47.25*	157.8	162.7	175.1	192.5	203.4	28.89
Rice -other source	*4.37*	150.2	148.4	158.7	178.6	195.2	29.96
Base:2012, Data source: MOSPI							

4. Prices

4.1 Minimum Support Prices

The domestic paddy prices are decided by Minimum Support Price (MSP) published by Commission for Agricultural Costs and Prices (CACP). MSP has a direct and cascading impact on the overall price of rice in domestic market.

The value of MSP for paddy has progressively increased over time reflecting the rising overall cost of production. Second highest MSP growth was seen in the Kharif Marketing Season (KMS) - 2023-24, where a hike of 143 rupees was announced. In KMS 2024-25, a hike of 117 rupees was announced representing a growth of 5.36 per cent.

Table 9: MSP for Paddy						
Season	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
Paddy Common	1815	1868	1940	2040	2183	2300
Growth Rate		*2.92*	*3.85*	*5.15*	*7.01*	*5.36*
Paddy(F)/Grade A	1835	1888	1960	2060	2203	2320
Growth Rate		*2.89*	*3.81*	*5.10*	*6.94*	*5.31*
*Values in Rs/Quintal, Data Source: CACP						

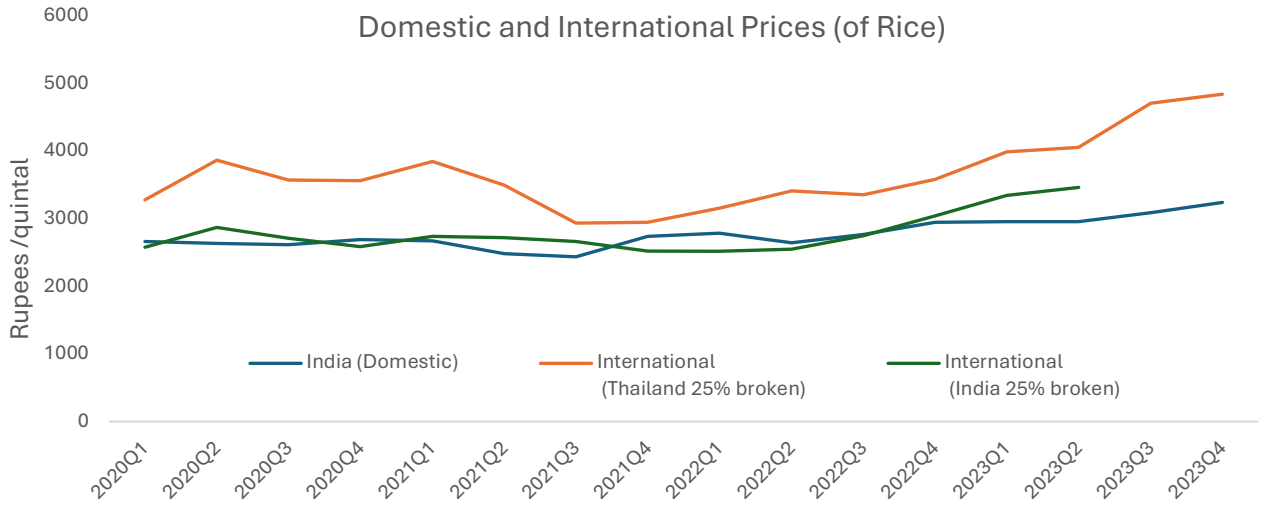
4.2 Bonus over MSP

State government declares bonuses over and above the MSP declared by central government. These bonuses may be provided with the objective of covering the difference in central and state government production cost estimates. But these bonuses have a distortionary effect on market prices of paddy across state.

Table 10: Bonuses over MSP Announced by State Government				
State		KMS 2022-23	KMS 2023-24	KMS 2024-25
Chhattisgarh		-	19257*	
Jharkhand		10	117	100
Karnataka		500	-	
Kerala	Common	780	637	
	Grade A	760		
Maharashtra**		15000	20000	20000
Tamil Nadu	Common	75	82	
	Grade A	100	107	
West Bengal		20	20	
Telangana				500
Values in Rs/quintal, Data source: CACP * Rs/ acre with procurement ceiling of 21 quintal/acre, ** Rs/hectare limited to 2 hectares				

States such as Karnataka, Kerala, Tamil Nadu, Jharkhand Maharashtra, and West Bengal have offered bonus for paddy. This practice of offering bonus needs to be discouraged to avoid price distortions across states.

4.3 Domestic and International Prices



Data Source : FAO Rice Price Index

The domestic prices have remained below the international prices over the past 4 years. India being the second largest producer and largest exporter of rice, variation in domestic production, prices and export policy have an impact on international prices. Changes in India's export policy in August-2023, caused the FARPI and FAO Indica Index to increase.

5. Procurement and Operations

5.1 Procurement

Procurement of food grains acts as a double edge sword for the government. It helps keep a balance between supporting agricultural producers and ensuring accessibility to consumers. It ensures income security to farmers through MSP and food security by making foodgrains available to vulnerable sections of society. The policy also ensures effective market interventions through open market sales to control domestic prices.

Table 11: Paddy Procurement by States

States (ranking by production)	**KMS 21-22**	**KMS 22-23**	**KMS 23-24***	**Production (% overall)**	**Procurement (% overall)**	**(Procurement /Production) %**
3. Punjab	12.548	12.201	12.414	9.9	21.9	99.2
Chhattisgarh	6.165	5.865	8.3	6.4	9.6	67.2
Telangana	7.394	6.289	6.386	9.9	14.7	66.9
Odisha	4.831	5.383	4.817	6.8	8.9	58.7
Haryana	3.706	3.977	3.949	3.6	6.6	81.1
2. Uttar Pradesh	4.391	4.389	3.605	12.0	7.6	28.2
Madhya Pradesh	3.07	3.102	2.825	4.2	5.0	53.3
Tamil Nadu	1.876	2.301	2.377	5.7	4.1	32.4
Bihar	3.009	2.817	2.063	5.5	4.7	38.2
Andhra Pradesh	4.461	2.755	2.038	6.1	7.4	54.6
1#. West Bengal	2.401	2.182	1.679	12.5	3.7	13.3
Maharashtra	1.227	1.238	0.78		5.8	15
Other States	2.509	1.821	1.311			
Total	**57.588**	**54.32**	**52.544**			

*Values in Million tonnes; Data Source: (Column 2-4) FCI; Column (5-6) *CACP*
#Telangana (12.17%), Uttar Pradesh (11.5%), West Bengal (11.06) are the largest producer of Rice (ES 23-24)

Punjab is one of the largest producers of paddy in the country but dominates the procurement process. Punjab has a 9.9 per cent share in the total production of rice but contributes 21.9 per cent to the overall procurement. Similarly, Haryana, despite having a meagre share of 3.6 per cent in production, has a 6.6 per cent share in procurement. 99.2 per cent of Punjab and 81.7 per cent of Haryana's paddy production is procured by the central government.

A significant point to be noted is that procurement as a share of total production from the two largest producer states of Uttar Pradesh and West Bengal stands only at 13.3 per cent and 28.2 per cent, respectively.

5.2 Paddy Farmers Benefitted

Table 12: Number of Paddy Farmers Benefitted				
	2021-22	**2022-23**	**2023-24***	**2024-25**
[1]Paddy Farmer Benefitted	1,26,79,650	1,24,97,077	*99,11,098*	-
% of total paddy farmers benefitted	18.4	18.1	*14.3*	-
[2]Beneficiary Farmer as % of Total Farmer (State Wise) - TE2022-23				
Punjab	99.1			
Telangana	85.6			
Chhattisgarh	55.1			
Tamil Nadu	19.8			
Odisha	32.7			
Haryana	38.6			
Uttar Pradesh	6.5			
West Bengal	18.5			
[3]Farmers Benefitted	98,59,866	1,09,71,651	*92,15,631*	*13,93,692*
MSP Benefited Farmer	94,76,171	1,08,04,396	*90,51,529*	*12,15,601*

Data source:
1. Table 2.8: No of Paddy Farmers Benefitting from Procurement, *TE2022-23, CACP,*
* No of famer benefitted for 1st Data source is till 22 March 2024
2. Chart 2.14: Beneficiary Farmers as % of Total Farmers, TE*2022-23, CACP*
3. CFPP, Food Corporation of India, as accessed on 21 November 2024
(TE- Triennium year)

An increase in the total number of farmers benefitting from the procurement process is witnessed, but only about 18 per cent of the paddy farmers have benefitted from procurement over the years. This leaves a large share of farmers untouched. Large variation in proportion of farmers benefitting from paddy procurement is seen across states. Farmers from Punjab Telangana, and Chhattisgarh have disproportionately benefitted from the procurement process.

6. Yield

6.1 Average Yield in India and World

Table 13: World Yield Comparison				
	Yield (World Average)	**World highest**	**All India average**	**State with Highest**
Paddy	4705	China, 7080	4229	Punjab, 6290
Values in Kg/hectare, Data Source: FAOSTAT				

The all-India yield of paddy was 4,229 kg/ha, which is lower than worldwide average yield of 4,705 kg/ha. Punjab has the highest yield among all the states at 6,290 kg/ha but rice yield in Punjab is still below China, which has the highest yield among all the countries at 7,080 kg/ha.

6.2 Yield Gap Analysis

Yield Gap refers to the difference between the potential farm yields and actual farm yield in cultivation of rice. To calculate yield gap, yield data on front line demonstration (FLD) and yield realized under farmers practices is considered. The two types of yield gaps i.e. Yield Gap (A) and Yield Gap (B) are defined as:

a. Yield Gap (A) is the difference between potential farm yield (yield achieved under FLD where best scientific and management practices are implemented) and realized farm yield under farmers' practices. It arises due to various socio-economic constraints like non-availability of inputs and services, risk aversion behaviour of farmers, fragmented land holdings, lack of farm mechanisation, weak institutions, and lack of knowledge.

b. Yield Gap (B) compares state average yield with potential yield achieved under FLD. It arises due to lack of technological & best management practices and socio-economic constraints.

Table 14: Yield Gap Analysis (%)								
	A				**B**			
Paddy (Kharif)	13.4				14.5			
Estimated Additional Production of Kharif Crop Likely increase on Production by Reducing Yield Gaps								
	5%	10%	15%	25%	5%	10%	15%	25%
Paddy	1.45	2.91	4.36	7.27	1.57	3.15	4.72	7.87
Value in Million tonnes, *Data source: CACP								

These kharif yield gaps indicate immense potential for further increase in productivity. Through efficient input management and adoption of improved scientific farm practices, overall paddy production in the country can be supplemented by seven million tonnes without increasing crop area.

7. Input Cost and Cost of Cultivation

7.1 Input Cost Index

Table 15: Trend in all India Kharif Crops – Input Prices						
Input	**Weights**	**Farm Input Price Index**				**% change 24-25 over 23-24**
		21-22	**22-23**	**23-24**	**24-25**	
Human Labour	0.49	222.2	234.1	246.8	261.6	6
Bullock Labour	0.04	370.1	393	423.6	458.8	8.3
Machine Labour	0.21	154.5	162.9	172.3	183.3	6.2
Seed	0.08	202.4	213.4	227.3	243.1	7.0
Fertilizer	0.08	167.3	176.2	184.4	193.4	4.9
Manure	0.02	222.4	233.3	245.7	259.4	5.6
Insecticides	0.04	145.4	149.6	153.8	158.3	2.9
Irrigation	0.03	122.8	126.6	130.8	135.8	3.8
Composite Input Price Index		**201.5**	**212.5**	**224**	**237.7**	**6.1**
% Change		**-**	**5.3**	**5.6**	**6.1**	
Data source: CACP						

The All-India input cost index for kharif crop have increased by 6.1 per cent in 2024-25 over 2023-24. The input cost index has seen a greater growth than the growth in MSP which grew at 5.36 per cent. Human Labour constitutes 50 per cent of the cost of production with the wages growing 6 per cent over 2023-24. Promotion of agricultural mechanization is felt to reduce the overall cost growth whilst increasing profitability.

7.2 Cost of Cultivation

Table 16: Projected Cost of Production (CoP) of Paddy				
All India	**2023-24**	**Margin in MSP over CoP (%)**	**2024-25**	**Margin in MSP over CoP (%)**
A2	1129	*93.4*	1189	*93.4*
A2+FL	1455	*50*	1533	*50*
C2	1911	*14.2*	2008	*14.5*
MSP	2183		2300	

State with CoP over A2+FL	Assam, Jharkhand, Kerala, Maharashtra, Odisha, Tamil Nadu, Telangana, Uttar Pradesh, West Bengal
State with CoP below A2+FL	Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himanchal Pradesh, Karnataka, Madhya Pradesh, Punjab
*Values in Rs/ Quintal, Data source: CACP	

The overall cost of production (A2+FL) and MSP of paddy has increased by 5.36 per cent while C2 has increased by 5.07 per cent in 2024-25 over 2023-24. The recommendation of MSP being 1.5x cost of cultivation (A2+FL) has been maintained.

Cost of production varied significantly across states. In certain states, cost of production is higher than the overall cost of production. This is due to low yield and high cost of cultivation, while in certain States such as Punjab and Haryana the cost of production is lower, increasing the profitability of rice cultivation.

7.3 Cost of Cultivation and Returns

Table 17: Gross Return over Cost of Cultivation (TE 22-23)

State (ranking by returns)	A2	A2+FL	GVO	% Gross Return over CoC A2 (GVO-A2)/A2	% Gross Return over CoC A2+FL (GVO-A2+FL)/(A2+FL)
Andhra Pradesh	63834	71100	111395	74.5	56.7
Assam	27319	44678	52784	93.2	18.1
3. Chhattisgarh	33867	41668	83698	147.1	100.9
Gujarat	47410	56055	80002	68.7	42.7
2. Haryana	50950	59449	134853	164.7	126.8
Himanchal Pradesh	21019	44115	79598	278.7	80.4
Jharkhand	32416	44430	48218	48.7	8.5
Karnataka	57665	71980	106325	84.4	47.7
Kerala	67468	78820	115269	70.8	46.2
Madhya Pradesh	35380	45121	87320	146.8	93.5
Maharashtra	66661	79888	54835	-17.7	-31.4
Odisha	38412	55596	66510	73.1	19.6
1. Punjab	51067	57356	144386	182.7	151.7
Tamil Nadu	60395	67447	91011	50.7	34.9
Telangana	62561	77124	110565	76.7	43.4
Uttar Pradesh	43675	55532	60528	38.6	9.0
West Bengal	44812	69641	72477	61.7	4.1
All India	**45593**	**58067**	**83478**	**83.1**	**43.8**

Values in Rupees/hectare; Data source: CACP
GVO: Gross Value of Output is prevailing market price of main product and by-products during harvest season in village/cluster of villages where the crops are grown and harvested.

The average gross return from cultivation of rice in India (over A2+FL) is 43.8 per cent. But the gross return for States such as Haryana, Punjab and Chhattisgarh are more than 100 per cent. When concurrently read with the procurement operation (Table 11 & Table 12), it can be inferred that procurement operations are dominated in states with highest gross return while production is concentrated in Uttar Pradesh and West Bengal.

The lower gross return when concurrently read with Bonus over MSP (Table 10) explains the need for states such as Maharashtra, Jharkhand, Tamil Nadu, and Assam to announce bonus. Among these states, Maharashtra has announced the highest bonus due to negative returns incurred by the farmers.

8. Trade Analysis

Rice exports from India constitute 20.8 per cent of the total agricultural exports of the country in 2022-23. Rice has the largest share among all agricultural exports from India. Rice exports earned 11 billion dollars by exporting 22.35 million tonnes of rice[4].

8.1 Rice Exports

Table 18: Rice Exports

Exports	M Tons/USD B	FY 21-22	FY 22-23	FY 23-24	Apr-Aug 24
Total Exports	Quantity	20.83	22.35	16.36	6.401
	YoY Change (%)		*7.32%*	*-26.82%*	
	Value	9.67	11.15	10.41	4.426
	YoY Change		*15.3%*	*-6.6%*	
Basmati	Quantity	3.94	4.56	5.24	2.323
	YoY Change (%)		*15.7%*	*14.9%*	
	Value	3.54	4.79	5.84	2.459
	YoY Change *(%)*		35.3%	21.9%	
Non-Basmati	Quantity	17.29	17.79	11.18	4.078
	YoY Change (%)		*2.9%*	*-37.5%*	
	Value	6.13	6.36	4.57	1.967
	YoY Change (%)		*3.75%*	*-28.14%*	
* Values in million tonnes, Apr-Aug 2024 values taken from DGCIS					

Rice exports from India have shown an increasing trend in both value and volume terms. Exports are classified into basmati and non-basmati rice. The classification arises due to the premium fetched by basmati rice compared to non-basmati rice in market. Though non-basmati rice dominates the overall rice export in both volume and value terms, primer driver in the past year has been basmati rice. It registered a growth of 21.9 per cent in value terms in 2023-24.

An overall drop in exports by -6.6 per cent in value terms was registered in 2023-24. The fall in exports was caused by a drop in export of non-basmati rice. Non-Basmati rice registered a drop in exports by -28.6 per cent, while the export of basmati rice registered a growth of +21.9 per cent. The high growth in exports of basmati rice helped cushion the overall fall in rice exports.

The instability in rice exports was driven by the changes in domestic export policy of non-basmati rice in August-2023 (Refer to Table 21).

In the Current FY 2024-25, the contribution of basmati rice in overall rice exports has increased above non-basmati rice. But policy changes instituted in September-2024 may cause a change in overall composition of rice trade in the rest of FY.

8.2 Rice Exports by India (Basmati vs Non-Basmati)

Table 19: Basmati Exports from India

Exports	FY 21-22	FY 22-23	FY 23-24	Apr 24-Aug 24
Basmati (56% of rice exports)	3.54	4.79	5.84	2.459
Iran	0.82	0.98	0.68	0.39
Saudi Arabia	0.65	1.04	1.25	0.51
Iraq	0.40	0.38	0.89	0.35
UAE	0.22	0.33	0.33	
Yemen	0.18	0.31	0.34	
USA	0.18	0.24	0.31	
Kuwait	0.13	0.16	0.20	
UK	0.12	0.14	0.22	

*Value in USD billion, Data source: DGCIS

Basmati Rice constitutes 56.1 per cent of the total rice exports. Exports of Basmati rice have been increasing at around 25 per cent. Exports are mostly concentrated in Middle Eastern nations. Within Middle Eastern nations Iran, Iraq and Saudi Arabia alone constitute around 45 per cent of total basmati exports in FY 2023-24. Largest growth in exports have been witnessed to Saudi Arabia. Basmati rice exports has remained unaffected by government policy changes.

Table 20: Non-Basmati Exports from India						
FY 21-22		**FY 22-23**		**FY 23-24**		**Apr 24-Aug 24**
Non-Basmati	6.13		6.360		4.57	1.967
Bangladesh	0.61	Benin	0.53	Benin	0.51	0.37
Benin	0.53	China	0.49	Guinea	0.37	0.195
China	0.50	Senegal	0.43	Togo	0.28	0.116
Nepal	0.46	Cote d' Ivorie	0.42	Vietnam	0.26	0.175
Senegal	0.31	Togo	0.33	Cote d' Ivorie	0.25	
Togo	0.29	Guinea	0.32	Senegal	0.23	0.128
*Value in USD billion, DGCIS						

Non-basmati rice constitutes 44 per cent (value) of the total rice exports of the country. Top export destination for non-basmati rice exports was Bangladesh in FY 2021-22 and Benin & China in FY 2022-23. But both China and Bangladesh do not occur as the top export destination in FY 2023-24 and FY 2024-25.

The exports of non-basmati rice which had been growing at 2.9 per cent in FY 2022-23, saw a substantial drop in exports in FY2023-24 by -28 per cent. The increase in export duty of parboiled rice to 20 per cent in August-2023 was the leading cause.

8.3 Trade Policy

The past one year has seen large variations in the export policy of the country. This has negatively impacted rice exports. The increase in export duty in FY 2023-24 caused the overall rice exports to fall, particularly non-basmati exports. Government still permitted the export of rice to countries under humanitarian grounds.

The major policy changes w.r.t rice are as follows:

Table 21: Rice Export Policy (August 2023- September 2024)			
Year	**Export Policy**	**Product**	**Description**
Oct -24	Amendment in Export Policy	Non- Basmati	W.e.f 27.10.2024 The Export Policy of Non-Basmati Rice (HSN 10063090) was amended from Free to Subject to MEP of USD 490/tonnes
Oct -24	Export duty on Rice	Non- Basmati	W.e.f 22.10.2024, Government reduced export duty to 00 percent.
Sept-24	Export duty on Rice	Non- Basmati	W.e.f 27.09.2024, Government reduced export duty to 10 percent.
Sep-24	Amendment in Export Policy	Non-Basmati	W.e.f 28.09.2024 The Export Policy of Non-Basmati Rice (HSN 10063090) was amended from Prohibited to Free Subject to MEP of USD 490/tonnes
Aug-24	Export	Non-Basmati	Export of Non-Basmati White Rice under HSN 10063090 to Malaysia through NCEL -reg

Jun-24	Export	Non-Basmati	Export of Non-Basmati White Rice under HSN 10063090 to Namibia through NCEL
Jun-24	Export	Non-Basmati	Export of Non-Basmati White Rice HSN 10063090 to Malawi and Zimbabwe through NCEL
Apr-24	Export of Kala Namak Rice.	Rice	Export of 1,000 MT of Kala Namak Rice under HS Code 10063090.
Dec-23	Certification of Inspection for Export	Basmati/ Non-Basmati	W.e.f. 12th December 2023, export of rice (basmati & non-basmati) to UK, Iceland, Liechtenstein, Norway, and Switzerland will only require Certificate of Inspection from Export Inspection Agency/ Export Inspection Council. Exports to other EU nations will not require certificate for a period of six months.
Dec-23	Export	Non-Basmati	W.e.f. 7th December 2023, exports of specified quantity of non-basmati white rice permitted through NCEL to Comoros, Madagascar, Equatorial Guinea, Egypt, and Kenya
Dec-23	Export of Fixed Allocation of rice	Non-Basmati	W.e.f. 7th December 2023, export of 20 MT non-basmati white rice permitted to Rice Exporters Federation for export to Nepal for earthquake victim.
Nov-23	Export	Non-Basmati	W.e.f. 30th November 2023, export of specified quantity of white grain & broken rice permitted through NCEL Bhutan, Mali, Senegal, Gambia & Indonesia.
Oct-23	Export of fixed allocated quantity of rice	Non-Basmati	W.e.f. 18th October 2023, export of fixed allocated quantity of non-basmati white rice permitted to Nepal, Cameroon, Cote d' Ivoire, Republic of Guinea, Malaysia, Philippines, and Seychelles.
Sep-23	Export of Rice through NCEL	Non-Basmati	W.e.f. 25th September 2023 export of 75,000 MT non-basmati white rice to UAE was permitted through NCEL.
Aug-23	MEP	Non-Basmati	To safeguard against export misclassification of non-basmati white rice as basmati rice, Government imposed Minimum Export Price (MEP) for basmati rice exports. In this regard, any contract to basmati rice consignment with value exceeding US$1200/MT must be registered for issue of Registration-cum-Allocation Certificate (RCAC) from APEDA.
Aug-23	Export duty on Rice	Non- Basmati	Government imposed 20 percent export duty on par boiled non-basmati rice on 25th August 2023.
W.e.f stands for with effect from Data source: DGFT & CBIC			

In Sept-2024, the government reduced the export duty of rice to 10 per cent. This was followed by removal of the export duty on rice and amendment of the export policy by removing MEP condition of USD 490/tonnes. The full impact of these institutional changes will be felt in future. Currently, post reduction of export duty, the world rice prices have started to decline as measured in FARPI. This has also impacted the profit margin of competitor countries such as Pakistan.

9. Government Initiatives Impacting the Rice Industry

The rice industry is impacted by several government schemes both directly and indirectly. Many initiatives implicitly impact production, cost of rice cultivation and consumption of rice. Some of the initiatives are:

9.1 Production

a. Rice seeds: The Government has released climate resilient rice seeds (9 different seed varieties) on 11th August 2024[5]. These rice varieties will help prepare for climate induced instability in production[6] and reduce the impact of climate change on farmers[7].

b. Pradhan Mantri Krishi Sinchai Yojana - Accelerated Irrigation Benefit Programme (AIBP), Har Khet Ko Pani (HKKP), Watershed Development and Per Drop More Crop (PDMC) have an impact on the availability of water. Only 55 per cent of India is under irrigation coverage and further extension of irrigation coverage will help increase rice production.

c. Efficiency through Farm mechanization: Farm mechanization is crucial for agriculture as it helps in reducing cost of cultivation. In rice cultivation, human labour constitutes 50 per cent of the total cost of production. Scheme such as Sub-Mission on Agricultural Mechanization (SNAM), Agriculture drone usage (Namo Drone Didi Programme) will have a direct impact on the reducing the overall human cost while also increase the profitability of the sector.

9.2 Allocation and Open Sales Operations

Table 22: Allocation of Rice to Schemes							
Year		**TPDS**	**ICDS**	**PM POSHAN**	**NFSA (Tide Over)**	**OMSS(D)**	**Total**
22-23	Allocation	34.91	1.228	2.305	2.087	1.784	42.878
23-24	Allocation	36.22	1.283	1.936	2.125	1.725	44.007
24-25	Allocation*	34.30	1.389	1.921	2.12	1.177	41.456
	Offtake	16.87	0.506	0.906	1.098	1.117	20.729
Value in Million tonnes, Data source: FCI, *Values till August-2024 Targeted PDS (TPDS), Integrated Child Development Scheme (ICDS), Open Market Sales (OMSS), National Food Security Act (NFSA)							

Rice procurement is determined by scheme wise allocation of food grains. Allocation of rice in various schemes have remained consistent. This has helped maintain a consistent demand of rice by government. Recently, allocation of Nutri-cereals in lieu of rice and wheat have started taking place[8] which if increased may substitute government rice demand.

Government also uses rice stocks, through OMSS scheme to help stabilize the overall prices in the economy. Rice is first sold under OMSS(D) to National Agricultural Cooperative Marketing Federation of India Ltd (NAFED) or National Cooperative Consumers' Federation of India (NCCF), which further supply them in open market under the Bharat rice brand. Despite this, overall FCI food stock level remains at an all-time high. To overcome the issue of surplus stock, the government has allowed the sale of rice to ethanol producers since August-2024.

9.3 Others

Nutritional content: Rice despite being a staple food in the country, is deficient in nutritional content[9]. To overcome this issue, the government has started providing fortified rice. Fortified rice helps in overcoming micronutrient deficiency[10] such as iron and zinc. Recently, government decided to extend the scheme for providing fortified rice (under PMGAY) till December 2028[11].

10. Challenges

a. Climate change: The issue of climate change will directly impact the overall productivity and yield of rice, affecting the availability of food supply. According to estimates, in the absence of adoption of adaptation measures, climate change is likely to reduce rainfed rice yields by 20 per cent in 2050 and 47 per cent in 2080 scenarios, while irrigated rice yields will reduce by 3.5 per cent in 2050 and 5 per cent in 2080 scenarios.

b. Farm Labour: Human Labour constitutes 50 per cent of the total rice cultivation cost and is growing at 6 per cent every year. Any reduction will directly impact the total cost of cultivation. Programs such as the use of agricultural drones may help in reducing the cost of cultivation.

c. Storage: FCI have a total storage capacity of 82.9 million tons. But issue of inadequate storage facilities arises. This issue is particularly pronounced in the states of Haryana and Punjab where storage capacity exceeds one hundred per cent during certain months [12]. This creates a storage and supply chain issue, whereby storage space for next season paddy is not created as existing storage space is not cleared [13].

d. Changing Dietary Pattern: A decline in cereals consumption has been witnessed over the past decade. Per capita consumption declines of 20 per cent in cereals has been witnessed. Changing diet has long term implication on the overall production of rice (and other cereals) in the country[14].

e. Air Pollution and Stubble Burning: Post harvest, a large amount of agricultural residue is left. This residue is also known as stubble or "Parali." The need to clear stubble in a short period of time leads to burning of residue by farmers[15], contributing to the worsening of air quality. This is witnessed in the states of Punjab, Haryana and UP. Steps shall be taken for in and ex-situ management of paddy residue[16].

11. Conclusion

The Rice industry is an important agroindustry contributing to both income and food security to farmers. The sector is expected to witness record production in the current year. The MSP for paddy has risen to ₹ 2300 per quintal representing a 5.36 per cent growth over last year, this will help ensure income security to farmers. Surplus production and full central stock level(s) will allow the government to fulfill its food security obligation, allow export and permit diversion towards ethanol production. To promote exports, the government has lowered export duty and removed the MEP on basmati rice. The government has also allowed diversion of rice as feedstock towards ethanol production since August-2024.

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Note: Definitions of costs calculated by CACP

- *A2: Costs incurred by the farmer in production of a particular crop. It includes several inputs such as expenditure on seeds, fertilisers, pesticides, leased-in land, hired labour, machinery and fuel*
- *A2+FL: Costs incurred by the farmer and the value of family labour*
- *C2: A comprehensive cost, which is A2+FL cost plus imputed rental value of owned land plus interest on fixed capital, rent paid for leased-in land*