



Rice

Sector Study

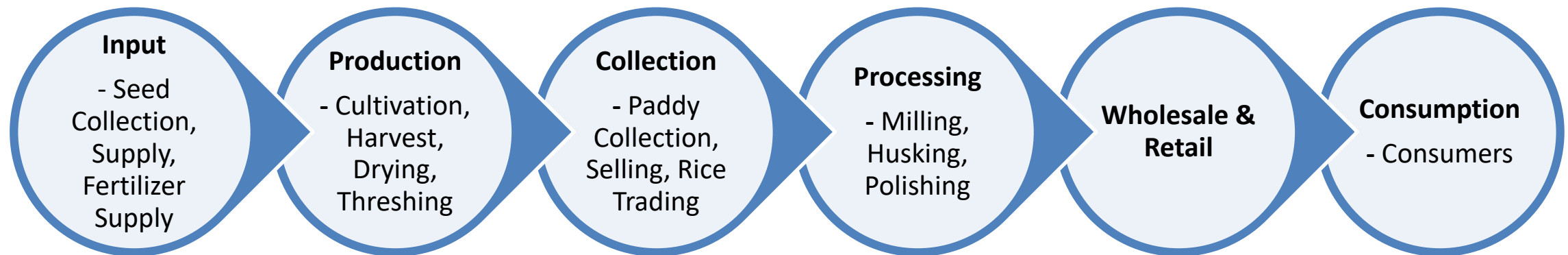
Table of Contents



Contents	Page No.	Contents	Page No.
Overview	1	Local Trade	14
Global World Rice Position	2	Price Dynamics Exports	16
Global Production	3	Local Price Dynamics	17
Global Consumption	4	Business Risk	18
Global Demand	5	Financial Risk	19
Global Average Yields	6	Rating Curve	21
Global Trade	7	SWOT	22
Agriculture Overview	10	Outlook	23
Local Snapshot	11	Bibliography	24
Local Overview	12		
Geographical Overview	13		

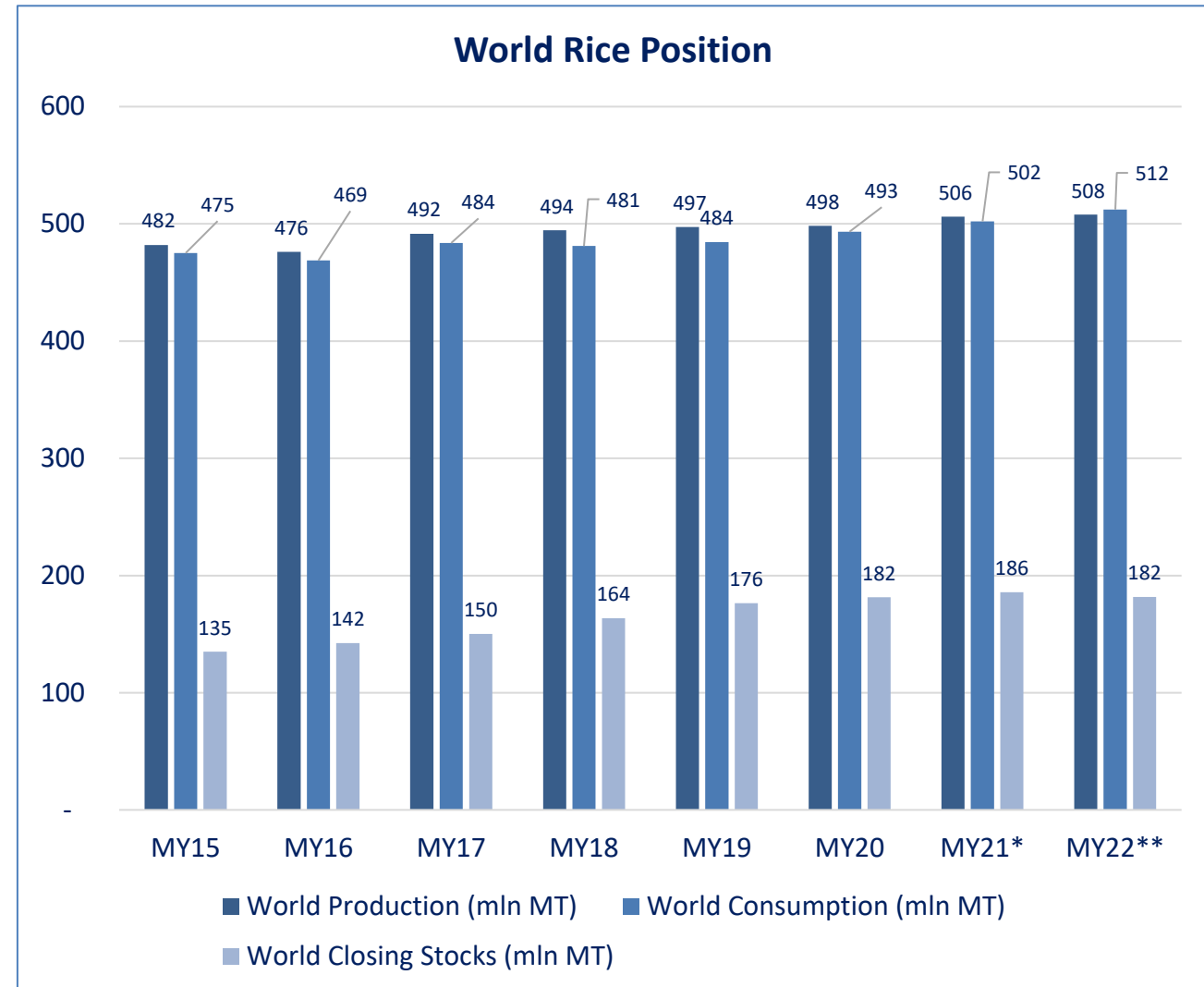
Overview

- Rice is the staple food for more than half of the world’s population with almost ~489mln MT of milled rice produced annually at a global level. Rice is mostly grown and consumed in the Asian Region. China is the largest consumer of rice, while India is the largest exporter, accounting for nearly 30% of rice trade.
- There are numerous types of rice produced worldwide. Globally rice can be classified into two main categories—Basmati Rice and Non-Basmati Rice. Following is the overview of rice supply chain;



Global | World Rice Position

- World Rice Production:** Global rice production is expected to reach ~506mln MT during MY21 with cumulative annual growth rate (CAGR) of ~0.7% in 6 years. The expected YoY production rise of ~1.6% (MY21) is associated with higher Indian and Senegal production prospects. In MY22, the rice production is estimated to reach at ~508mln MT.
- World Rice Consumption:** Average world consumption for the past 6 years (MY15 to MY20) stood at ~481mln MT with CAGR of ~0.8%. In MY21, the rice consumption is expected to clock in at ~502mln MT (MY20: ~493mln MT), with a YoY increase of ~2.2%. In MY22, the rice consumption is estimated to reach at ~512mln MT.
- World Ending Stocks:** Average world stock is the expected amount of rice leftover after consumption. In MY21, the rice ending stocks are expected to record at ~186mln MT (MY20: ~182mln MT), with a YoY increase of ~2.3%. India and China are the two major countries holding a significant portion of world stock.



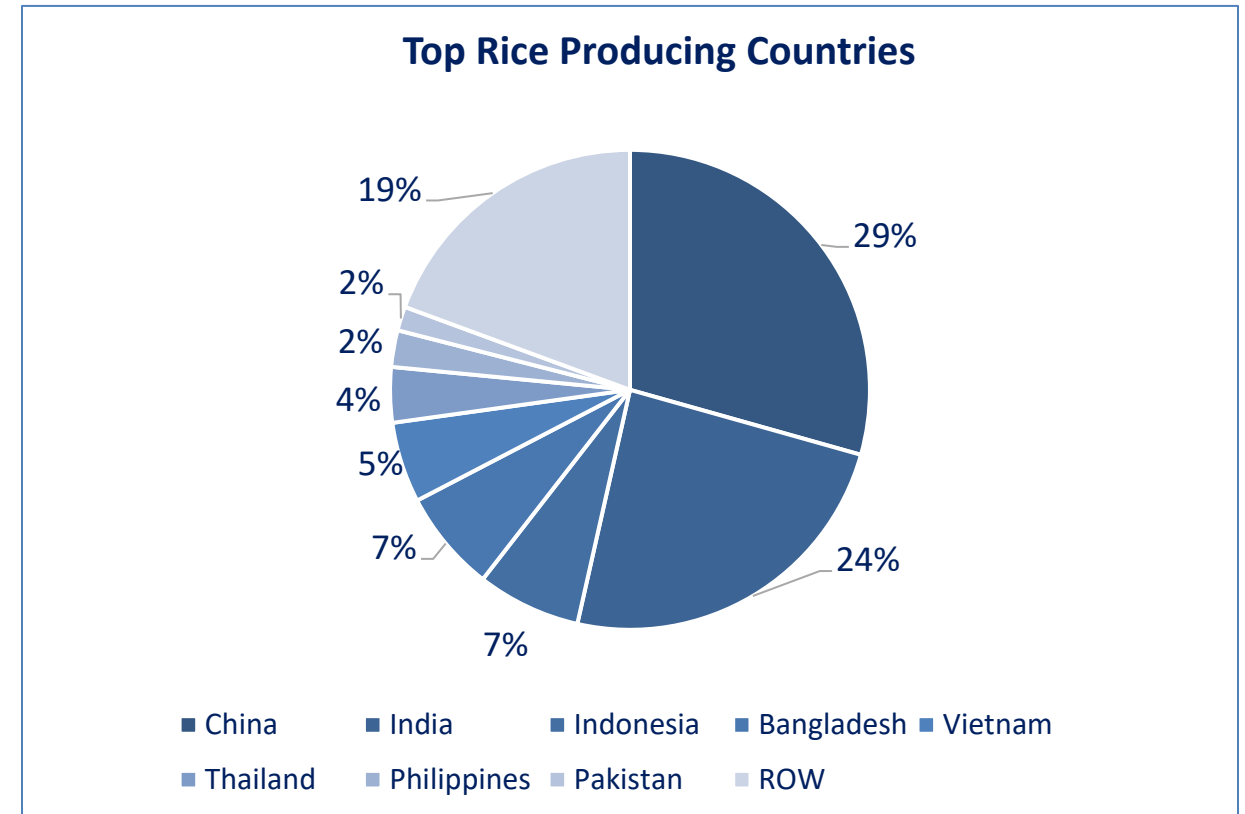
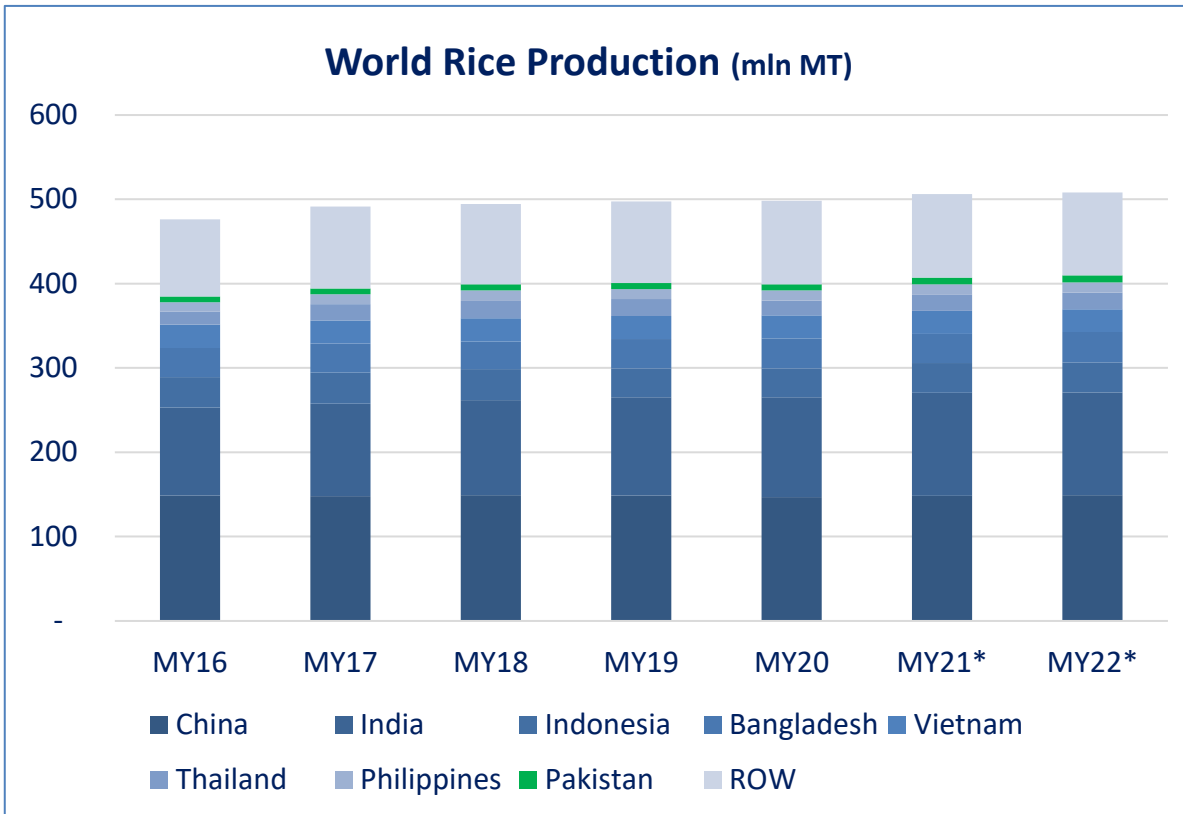
*Figures for MY21 are estimated.

**Figures for MY22 are expected.

MY refers to the Marketing Year, which is different for each country

Global | Production

- World Production:** Average world production for the past 5 years (MY16 to MY20) was recorded at ~489mln MT. In MY21, the rice production is expected to reach at ~505mln MT (MY20: ~496mln MT), with a YoY increase of ~1.8%. China has been leading, with a production of ~148mln MT, that constitutes ~29% of global rice production. While India ranks second with ~122mln MT rice production. Pakistan ranks at the eighth number in terms of rice production around ~8mln MT making almost ~2% share in global rice production.



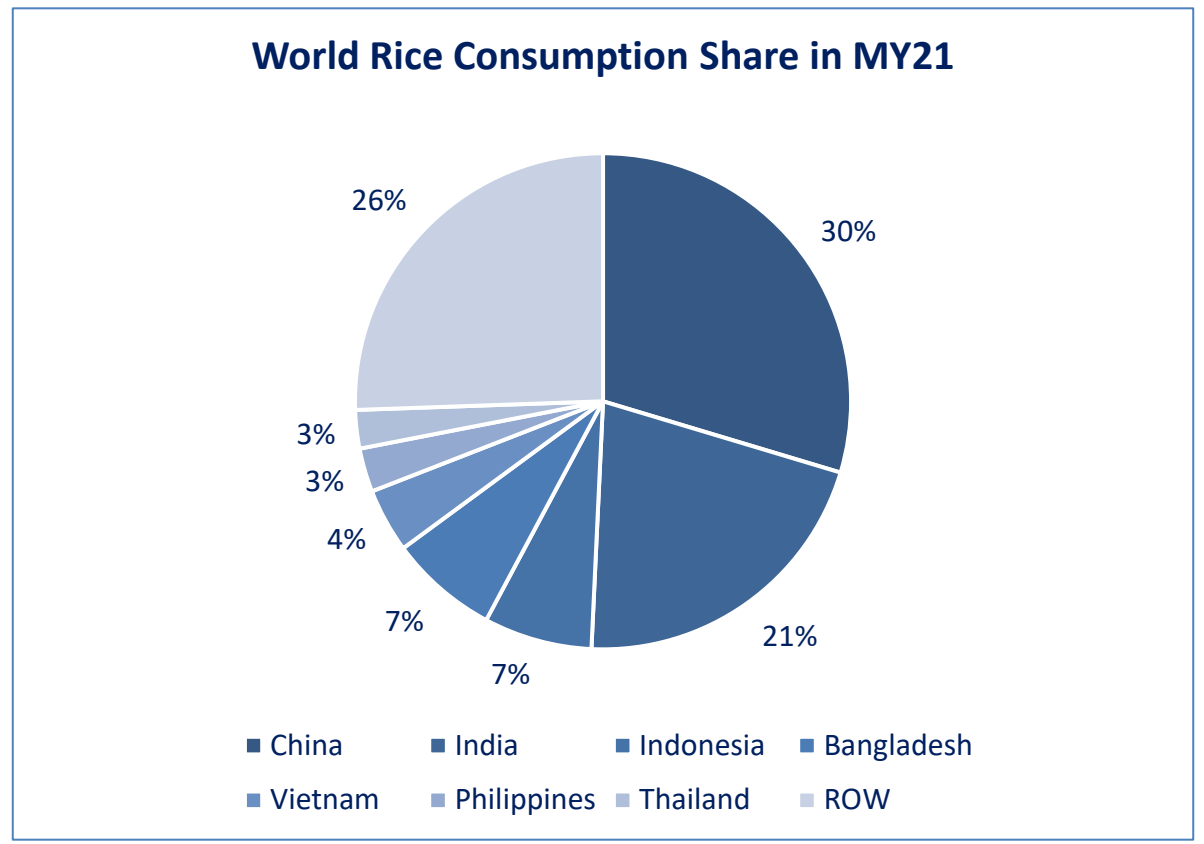
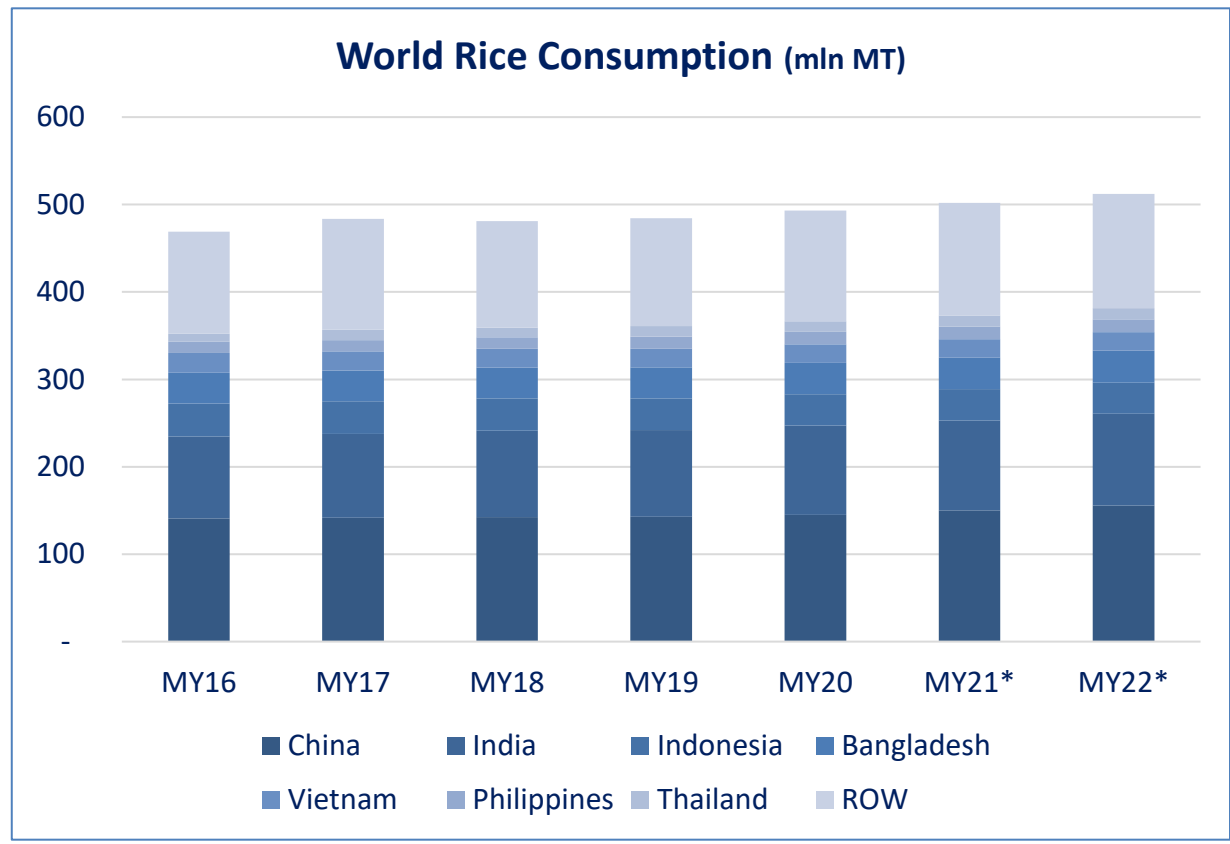
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Global | Consumption

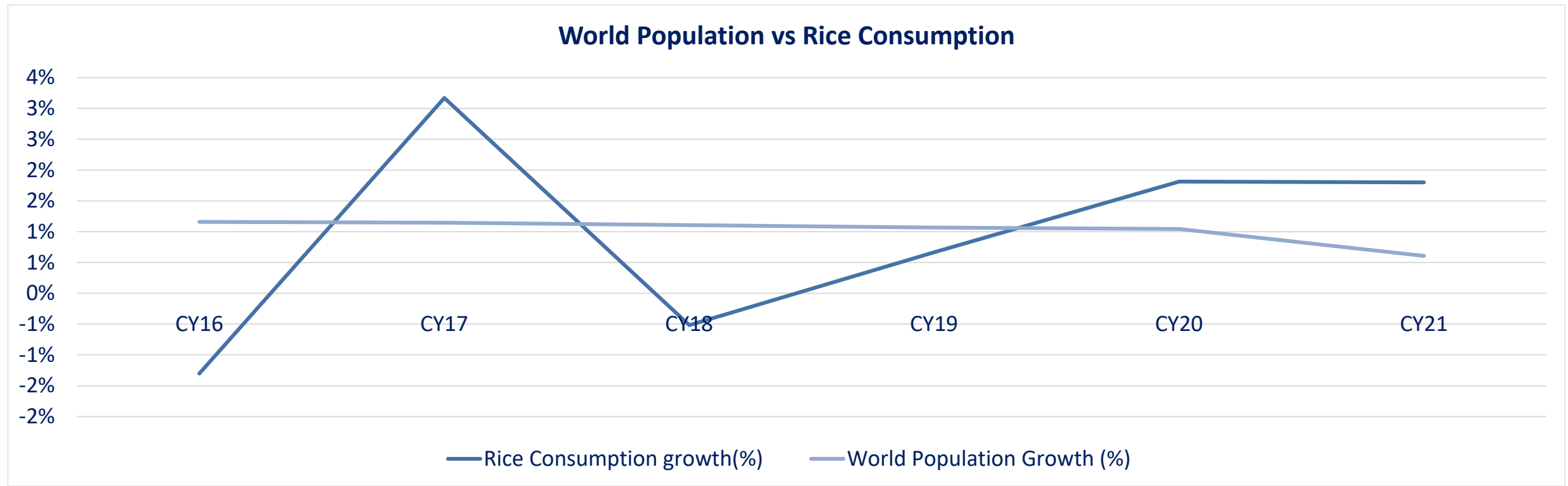
- **World Consumption:** Average World Consumption for the past 5 years (MY16 to MY20) stood at ~481mln MT. In MY21, the rice consumption is expected to reach at ~507mln MT (MY20: ~495mln MT), with a YoY increase of ~2.2%.
- China, India, Indonesia and Bangladesh have the highest share in world rice consumption.



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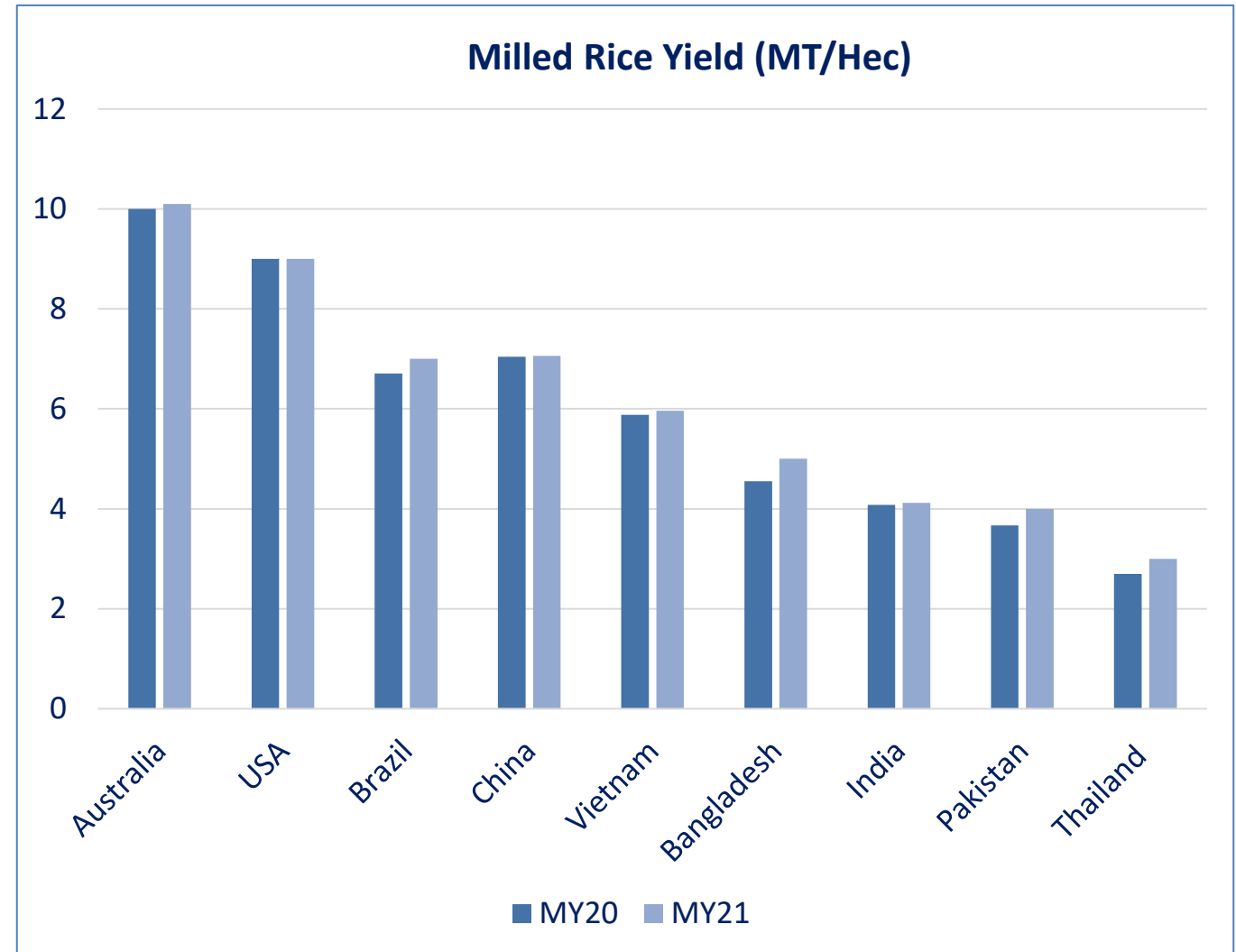
Global | Demand

- During the 5 years from CY16 – CY20, world population grew at a CAGR of ~1.1% with very low variations on a YoY basis. Meanwhile, rice consumption patterns recorded an CAGR of ~0.8% through these years. Unlike population growth, rice consumption trend depicts volatility.
- The volatility in consumption patterns can be associated to the following factors:
 - Changes in crop output and yield in a particular season.
 - Availability of substitutional food crops.



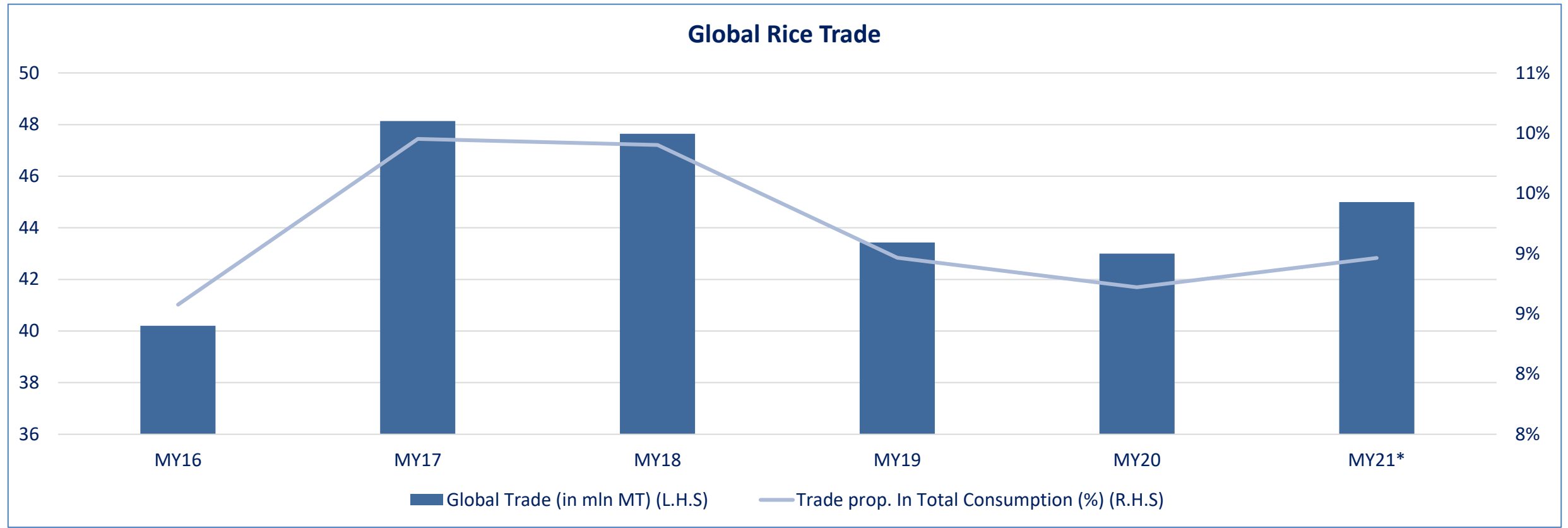
Global | Average Yields

- Rice average yield is a derivative of factors such as (i) quality of seed (ii) agricultural techniques (iii) climatic conditions and (iv) farmer skillset.
- In MY21, Australia ranks the highest in terms of average yield producing ~10 MT/Hec, while USA is at second position with an average yield of ~9 MT/Hec.
- Among regional players, Bangladesh is leading with an average yield of ~5 MT/Hec. India and Pakistan register a yield at par of almost ~4 MT/ Hec.
- Although Thailand's yield is recovering after drought, it still continues to remain low at ~3 MT/Hec.
- World's lowest yields are mostly recorded in the African Region countries such as Liberia and Cameroon where water availability is low.



Global | Trade

- World Rice Trade:** The average world rice trade for past six years (from MY16 to MY21) is recorded at ~45mIn MT growing at a CAGR of ~1.4%. In MY21, world rice trade is expected to reach ~45mIn MT (MY20:~43mIn MT), with a YoY increase of ~4.6%.
- India is the largest exporter of rice followed by Thailand, Vietnam and Pakistan while China is the largest importer of rice, followed by Philippines, Nigeria and EU. Global rice trade is expected to account for ~9.0% of consumption during MY21 (MY20:~8.7%).



*Figures for MY21 are estimated

- During MY21, global imports are expected to reach ~48mln MT (MY20:~45mln MT), with a YoY increase of ~7%. The growth in imports is majorly associated with increased imports by China, ~3.9mln MT in MY21 (MY20:~3.2mln MT), a rise of ~21.9% YoY basis.
- Rice import market is fragmented, spreading fairly across the globe and covering major regions like EU, Middle East, African Countries and others.
- China, despite being the largest producer of rice, is a net importer since its domestic rice production is not enough to meet its local consumption needs.
- Meanwhile Pakistan, India, Thailand and Vietnam, have historically remained self sufficient in meeting their In-house demand.
- Different qualities of rice are exported to different regions & countries, depending upon the consumer preferences and consumption patterns.
- In MY22, world rice import market is expected to decline by ~0.4% wherein China would be leading the decline.

Leading Global Importers (mln MT)							
	MY16	MY17	MY18	MY19	MY20	MY21*	MY22*
China	5.9	4.5	4.5	2.8	3.2	3.9	3.6
Philippines	0.8	1.2	2.5	2.9	2.5	2.1	2.1
Nigeria	2.1	2.5	2.1	1.8	1.8	1.9	2.0
EU	1.3	2.0	1.6	1.8	2.0	1.9	2.0
Saudi Arabia	1.3	1.2	1.3	1.4	1.6	1.5	1.4
Iraq	0.9	1.1	1.2	1.3	1.0	1.2	1.2
Senegal	1.0	1.1	1.1	1.0	1.1	1.2	1.1
Iran	1.1	1.4	1.3	1.4	1.1	1.1	1.3
South Africa	1.0	1.1	1.1	1.0	1.0	1.1	1.0
UAE	0.7	0.7	0.8	0.9	0.9	0.9	0.9
Indonesia	0.4	0.4	2.4	0.6	0.6	0.7	0.6
ROW	23.9	31.1	28.5	27.1	28.6	31.0	30.8
Total	40.2	48.1	48.3	43.9	45.2	48.2	48.0

*Figures for MY21 are estimated.

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Global | Trade

- During MY21, global exports are expected to reach ~48mln MT (MY20:~45mln MT), with a YoY increase of ~7%. The growth in export market is driven by a boost in exports from India, that is ~18mln MT in MY21 (MY20: ~15mln MT), a YoY increase of ~26.7%.
- In terms of rice type, India and Pakistan are the largest producers and exporters of basmati rice – the premium grade. India accounts for nearly 90 percent of global basmati exports. Pakistan is the other key basmati producer, wherein most of the basmati rice produced is consumed domestically and a small portion is exported.
- The Middle East is the top export destination for basmati rice where it is a popular staple food, especially in its large markets such as Saudi Arabia, Iran, United Arab Emirates (UAE), and Iraq.
- The second largest rice exporter is Vietnam, its exports are expected to reach ~6mln MT in MY21, with an YoY increase of ~1.0%.
- In MY22, world rice export market expected to decline by ~0.4%, due to reduced rice exports by India and USA.

Leading World Exporters (mln MT)							
	MY16	MY17	MY18	MY19	MY20	MY21*	MY22*
India	10.1	12.6	11.8	9.8	14.6	18.8	16.5
Vietnam	5.1	6.5	6.6	6.6	6.2	6.3	6.4
Thailand	9.9	11.6	11.2	7.6	5.7	5.6	6.5
Pakistan	4.2	3.5	4.1	4.1	4.1	3.7	4.2
USA	3.3	3.3	2.8	3.1	2.9	3.0	2.9
China	0.4	1.2	2.1	2.7	2.3	2.3	2.4
Burma	1.3	3.4	2.8	2.7	2.3	1.9	2.0
Brazil	0.6	0.6	1.2	1.0	1.2	0.8	1.1
ROW	5.3	5.5	5.8	6.3	6.0	6.0	6.1
Total	40.2	48.1	48.3	43.9	45.2	48.2	48.0

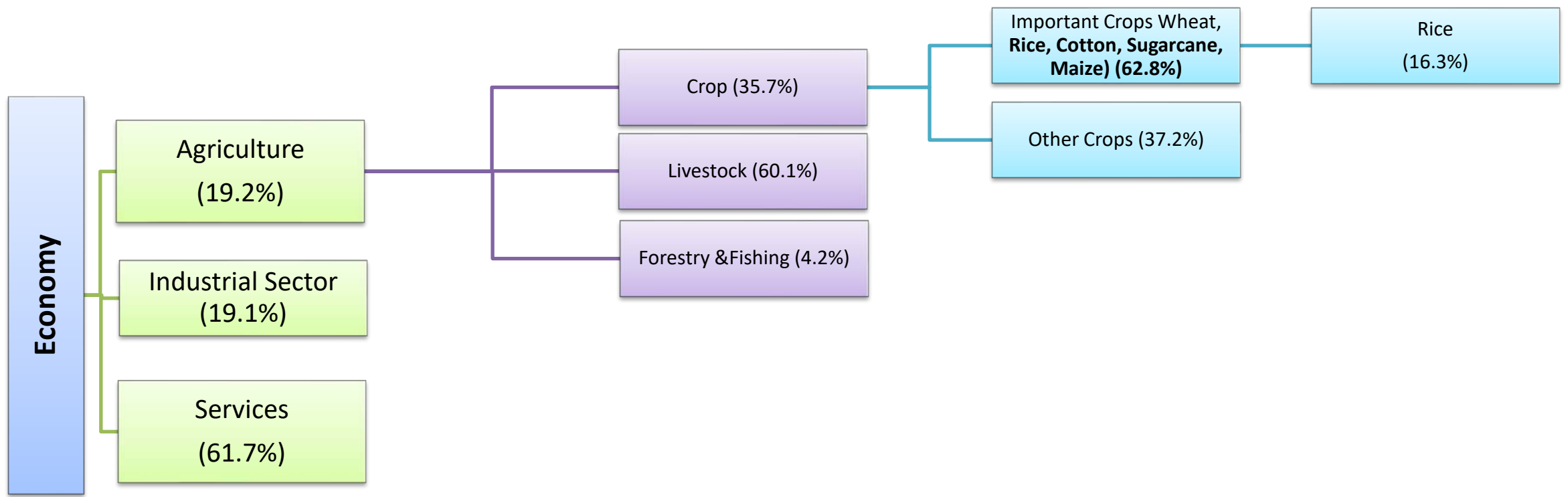
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Agriculture | Overview

- Pakistan’s economy is divided into three segments: Agriculture, Industry and Services. During FY21, the agricultural sector declined by ~0.01%. Agricultural growth rate has been constrained by shrinking arable land, climatic changes, water shortages, and large-scale population and labor shift from rural to urban areas.
- The important crops contributed ~22.5% to value addition in agriculture sector and ~4.3% to GDP. Other crops account for ~11.7% in value addition of agriculture sector and ~2.2% in GDP. Rice Production increased by ~13.4% in FY21 recording at ~8mln MT (FY20: ~7mln MT). Others crops include pulses, oilseeds, vegetables and cotton ginning.



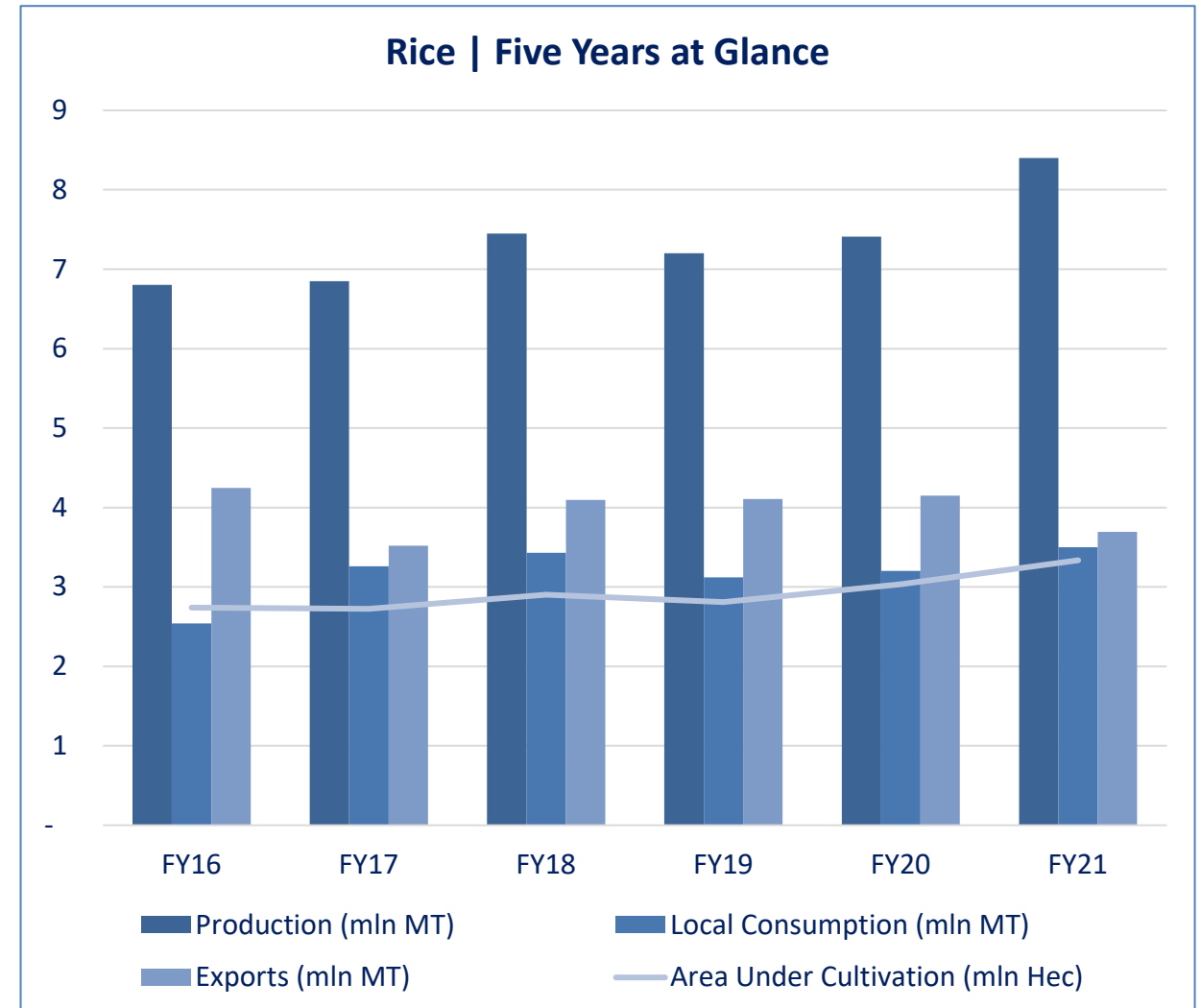
Local | Snapshot

- Rice is an important food as well as cash crop. It is the second main staple food crop after wheat. Rice is one of the major export commodities as well. It generated an export revenue of USD~2,041mln during FY21 (FY20: USD~2,176mln).
- In FY21, rice contributed 3.5% (FY20: ~3.1%) to value added in agriculture and ~0.7% (FY20:~0.6%) in GDP. The sector is significant in terms of export proceeds, as rice related export proceeds constituted ~8.1% to the country's total export proceeds in FY21 (FY20:~10.2%).
- Rice production increased to ~8.4mln MT during FY21 with a YoY increase of ~10% (FY20:~7.4mln MT). Although the production yield remained stagnant at ~2.5 MT/Hec, the increased production was led by growing area under cultivation.
- Pakistan has two cropping seasons. "Kharif", the first sowing season, which starts from April to June and is harvested from October to December. This season crop cycle mainly consists of rice, sugarcane, cotton, maize, moong, mash, bajra and jowar. "Rabi", being the second season, sowing begins from October to December and is harvested from April to May. It comprises mainly wheat, gram, lentil (masoor), tobacco, rapeseed, barley and mustard.

Snapshot	FY19	FY20	FY21
Contribution to Nominal GDP	0.6%	0.6%	0.7%
Value Added to Agriculture	3.0%	3.1%	3.5%
Area Under Cultivation (mln Hec)	2.8	3.0	3.3
Production (mln MT)	7.2	7.4	8.4
Consumption (mln MT)	3.1	3.3	3.5
Yield (MT/Hec)	2.6	2.5	2.5
Total Exports (mln MT)	4.1	4.1	3.7
Total Exports (USD mln)	2,070	2,176	2,041
-Basmati Exports (mln MT)	0.7	0.9	0.6
-Non Basmati Exports (mln MT)	3.4	3.3	3.1
Market structure	Fragmented		
Association	Rice Exporters Association of Pakistan		

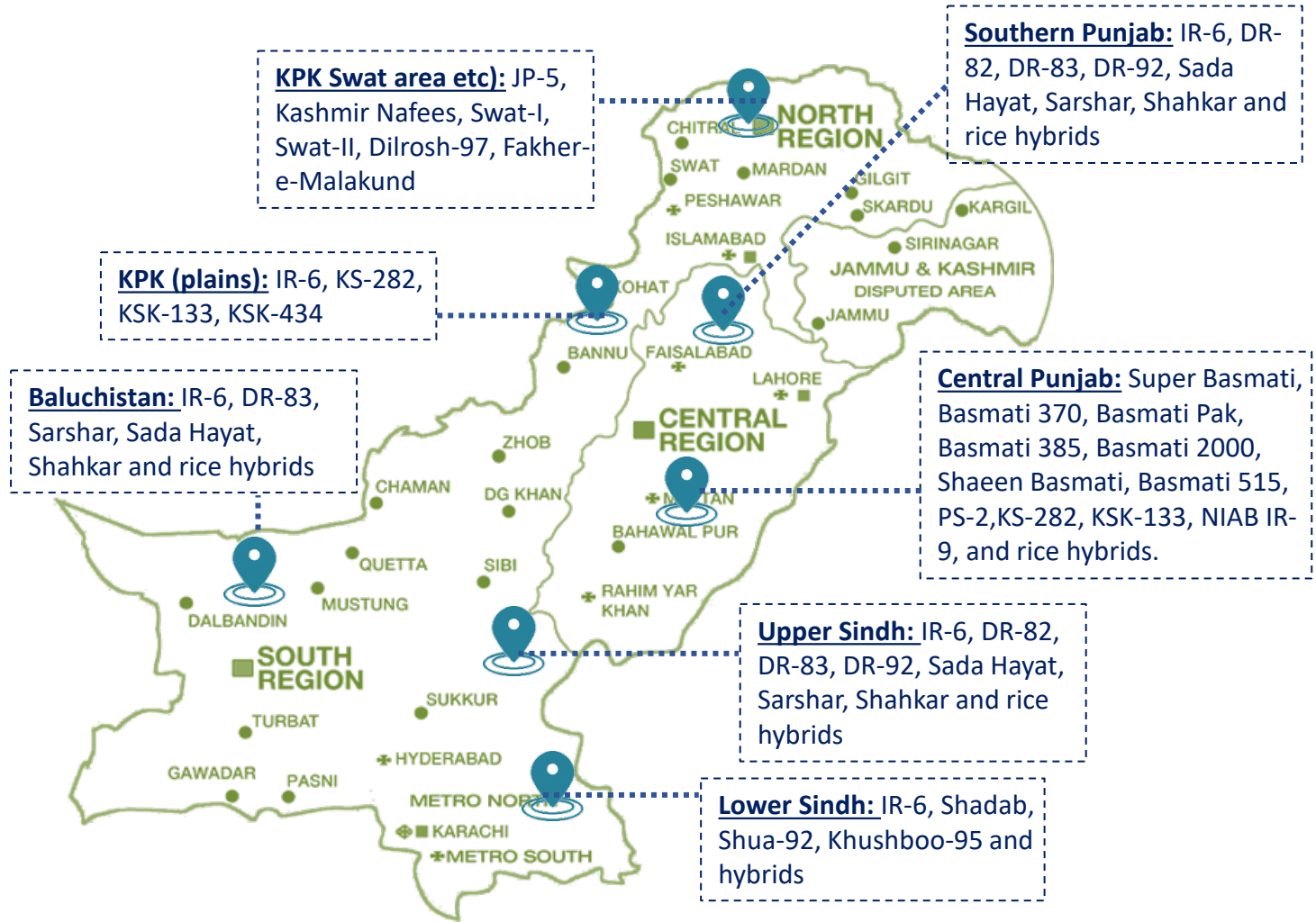
Local | Overview

- Local Production:** Average local rice production for the past 5 years (FY16 - FY20) stood at ~7.1mln MT with a CAGR of ~1.7%. In FY21, rice production was recorded at ~8.4mln MT (FY20: ~7.4mln MT), a YoY increase of ~13.5%.
- Area Under cultivation:** In FY21, area under rice cultivation increased to ~3.3mln Hec (FY20: ~3.0mln Hec) with a YoY increase of ~10%. This increase is one of the major contributors to the growth in production of rice.
- Local Consumption:** Average local rice consumption from FY16 – FY20 stood at ~3.1mln MT with a CAGR of ~5.1%. In FY21, rice consumption was recorded at ~3.5mln MT (FY20: ~3.2mln MT), with a YoY increase of ~7.3%.
- Exports:** Average rice exports from FY16 – FY20 stood at ~3mln MT. In FY21, rice exports were recorded at ~3.7mln MT (FY20: ~4.1mln MT), with a YoY decrease of ~11%. The decrease in rice exports is linked to the Indian strategy of dumping the commodity in international market at cheaper rates.



Geographical Overview

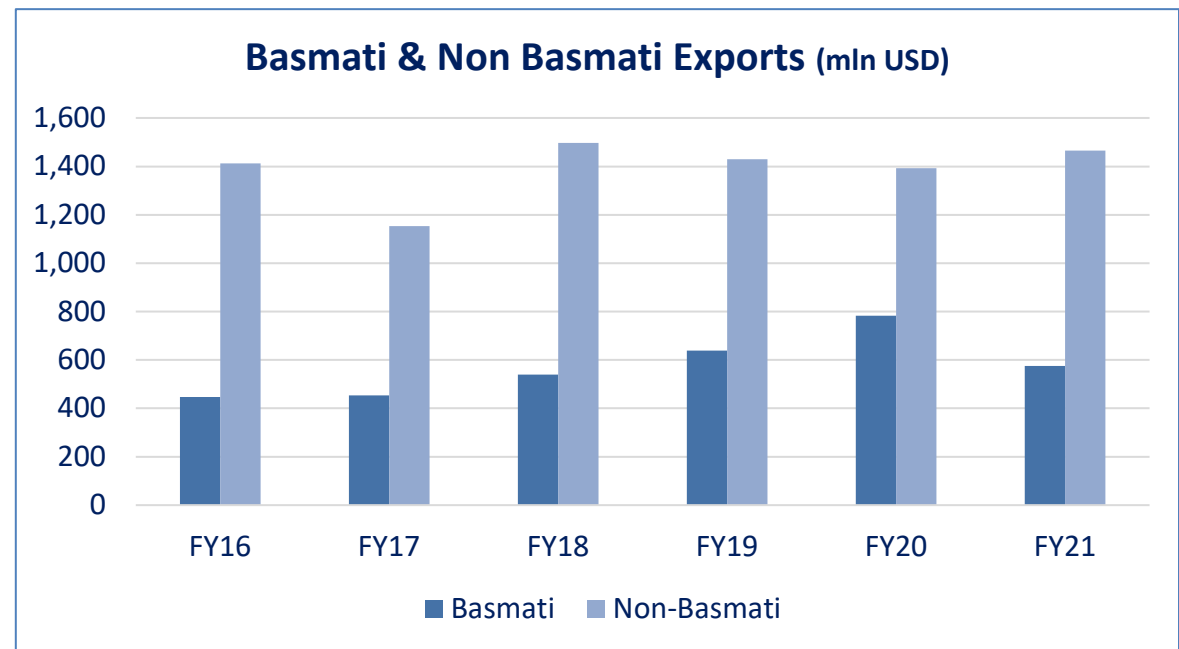
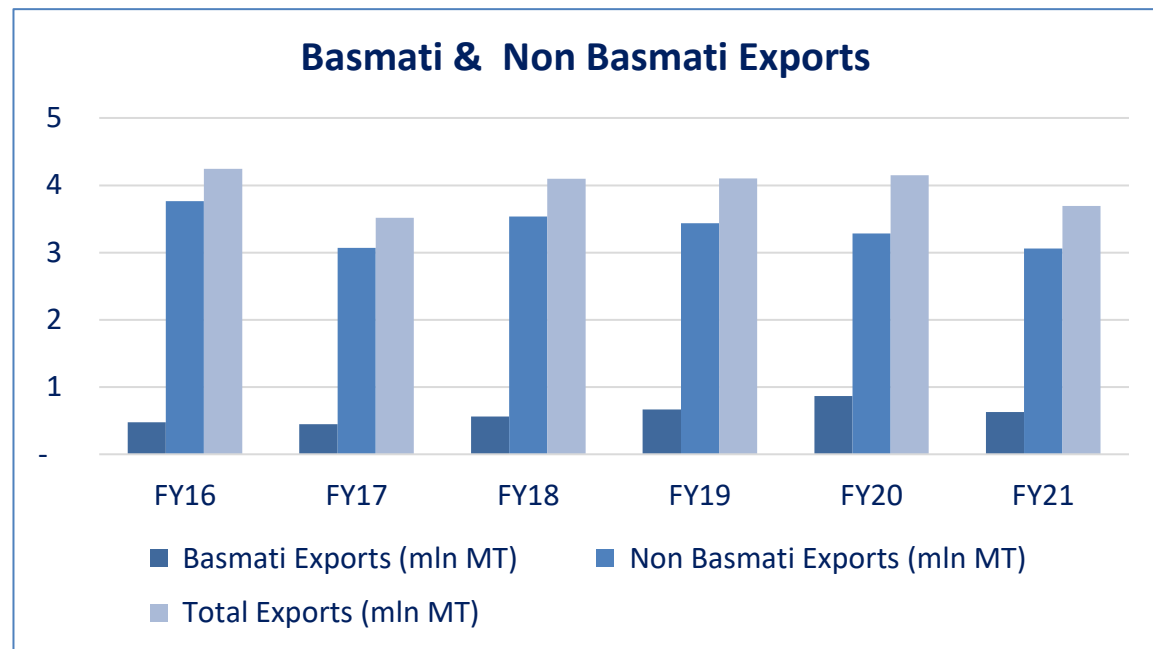
Geographical Distribution of Types of Rice in Pakistan



- Pakistan has two major rice-producing regions; Punjab and Sindh. Together, both provinces account for nearly ~90% of total rice production.
- Punjab, due to its agro-climatic and soil conditions, produces 100% of the Basmati rice in the country, which is a premium quality and expensive rice as compared to non basmati rice.
- Sindh region is enriched with cultivation of non basmati rice, mainly IRRI-6, which is majorly exported to the African regions.
- Sindh region is further bifurcated into two parts due to differing land characteristics and water availability, hence the quality differs according to the varieties

Local | Trade

- Pakistan’s basmati Rice is considered a high grade premium quality rice in the International Market, particularly in the EU and Middle East. The price of basmati rice is almost double the price of non-basmati rice but non-basmati rice forms a major portion of total export quantum. Rice export is significant for Pakistan as rice proceeds constituted ~8.1% of total exports during FY21 (FY20: ~10.2%).
- **Basmati Exports:** The country’s average basmati exports for the past 5 years (FY16 to FY20) stood at ~0.6mln MT. In FY21, rice exports were recorded around ~0.6mln MT (FY20: ~0.9mln MT) with a YoY decrease of ~27.4%.
- **Non Basmati Exports:** Average non basmati exports for the past 5 years (FY16 to FY20) stood at ~3.4mln MT. In FY21, rice exports were recorded at ~3.1mln MT (FY20: ~3.3mln MT), with a YoY decrease of ~6.7%.
- The decrease in rice exports of Pakistan is closely associated to the Indian strategy of dumping the commodity in international market at cheaper rates.

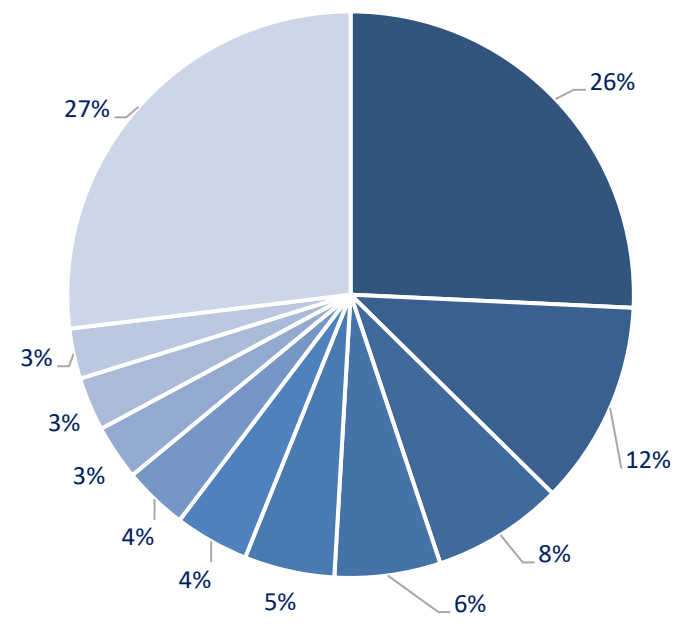


Local | Trade

- Middle East countries are the largest buyers of Pakistan’s basmati rice in which UAE has ~26% share in total basmati rice export of the country followed by Saudi Arabia, Oman and Kenya having ~12%, ~8% and ~6% shares respectively.
- Kenya is the largest importer of Pakistan’s non-basmati rice with a share of ~20% in total export.

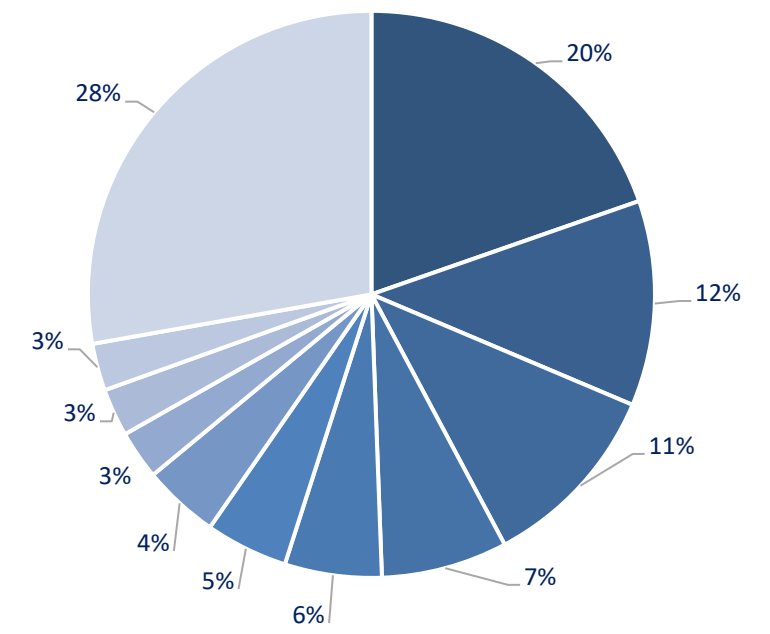
Basmati Importing Countries (FY20)

- United Arab Emirates
- Saudi Arabia
- Oman
- Kenya
- USA
- Yemen
- Kazakstan
- Somalia
- Malaysia
- United Kingdom
- Others



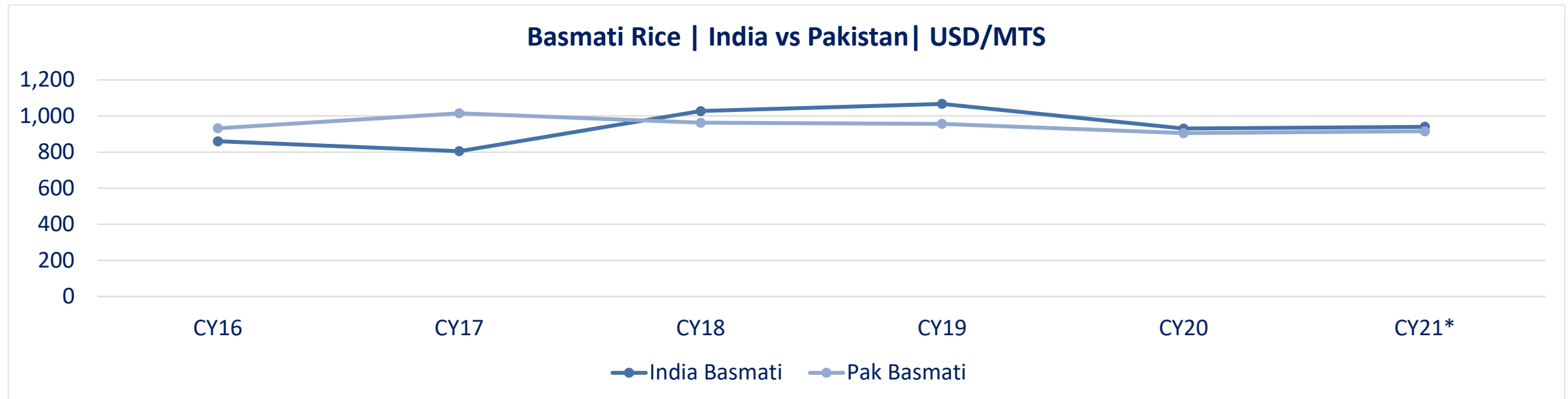
Non-Basmati Importing Countries (FY20)

- Kenya
- China
- Mozambique
- Tanzania
- Afghanistan
- Malaysia
- Benin
- Madagascar
- Somalia
- Togo
- Others



Price Dynamics | Export

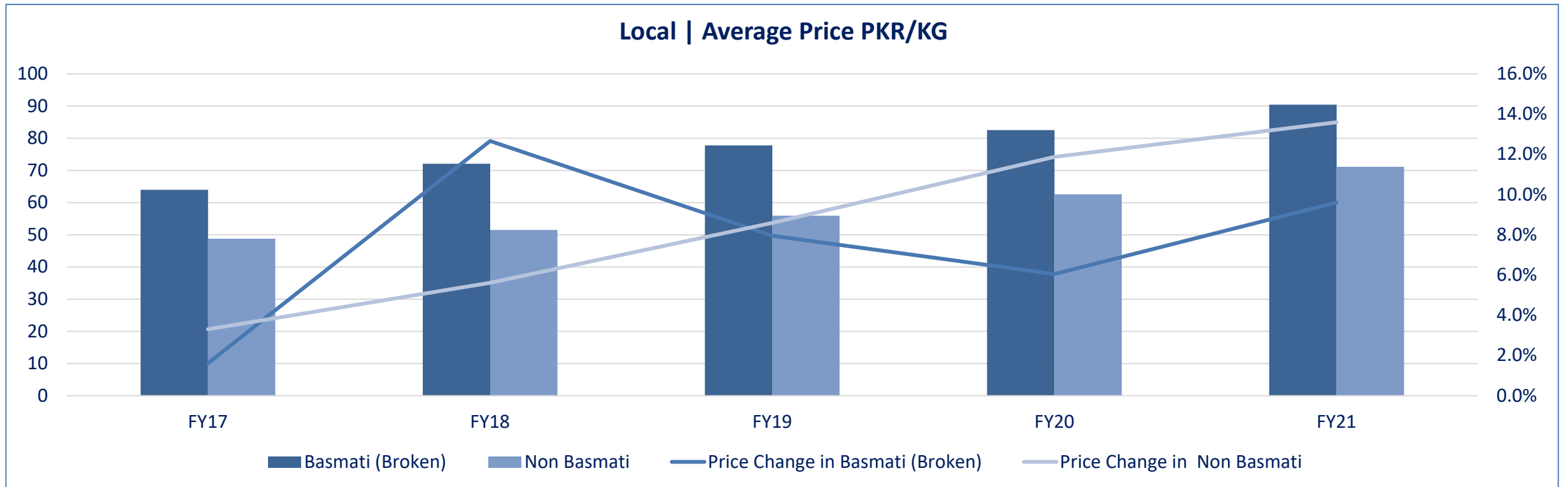
- Basmati rice is a high-grade, premium quality product valued for its special aromatic qualities. India and Pakistan are the largest producers and exporters of basmati rice, with India accounting for ~90% of global basmati exports.
- India dominates basmati exports while Pakistan is the other key basmati producer. Despite increased global demand for this premium commodity, most of the basmati rice produced in Pakistan is consumed internally.
- **India Basmati Price:** In CY21, the average export price of Indian basmati rice has increased by ~10.7% to USD~940/MT (CY20:USD~930/MT). The increased price is associated with high demand of basmati rice from rice importing regions like Middle East, EU, etc.
- **Pakistan Basmati Price:** In CY21, the average export price of Pakistani basmati increased by ~1.1% to USD~915/MT (CY20: USD~905/MT). Basmati rice exports account for ~28% (in value terms) of the total rice exports of Pakistan (the rest is non basmati exports).



*Figures for CY21 are estimated

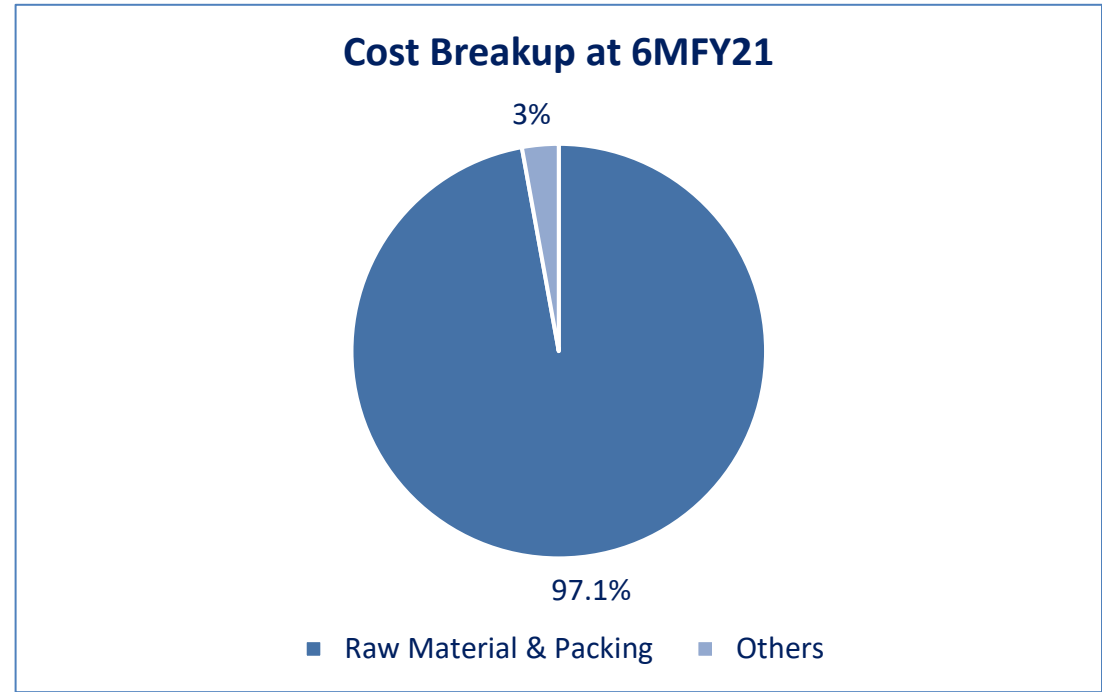
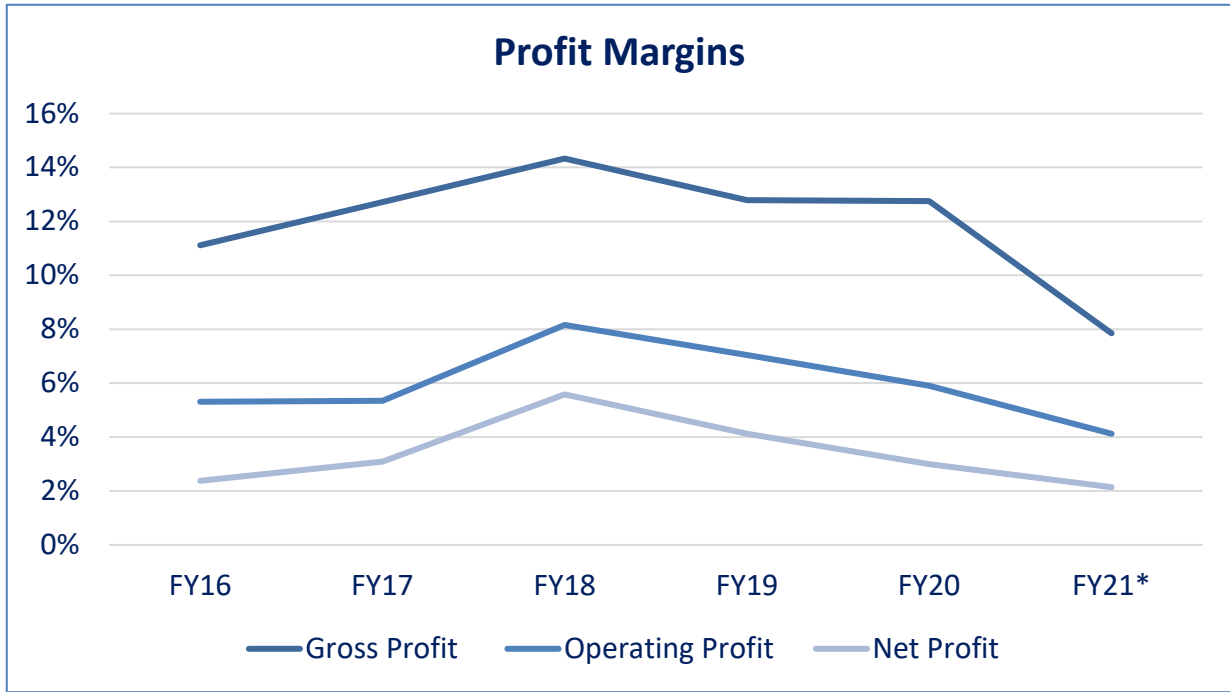
Price Dynamics | Local

- The average local price has been increasing over the years.
- **Basmati (Broken):** In FY21, the average price of basmati (broken) increased by ~9.6%, to PKR~90/Kg (FY20: PKR~83/Kg).
- **Non Basmati :** In FY21, the average price of non basmati increased by ~13.5% to PKR~71/Kg (FY20: PKR~63/Kg).



Business Risk

- Margins:** The average gross margins of last 5 years (FY16 –FY20) stood at ~12.7%. In FY21, gross margins are estimated to shrink to ~7.8% (FY20: ~12.8%) due to higher raw material cost. The average operating margins of last 5 years (FY16-FY20) clocked in at ~6.0%. Operating margins for FY21 are also estimated to contract to ~4.1% (FY20:~5.9%) owing to rising freight charges.
- The Sector’s average net margins for the last five years (FY16-FY20) hovered around ~3.6%. During FY21, net margins are estimated to decrease to ~2.1% (FY20:~3.0%), with a YoY decline of ~28.7%.
- Cost Breakup:** The largest component within direct costs is raw material comprising ~97.1% of the total cost of sales of rice companies, therefore any fluctuation in the price of raw material or availability constraint can impact the business risk profile of the sector.

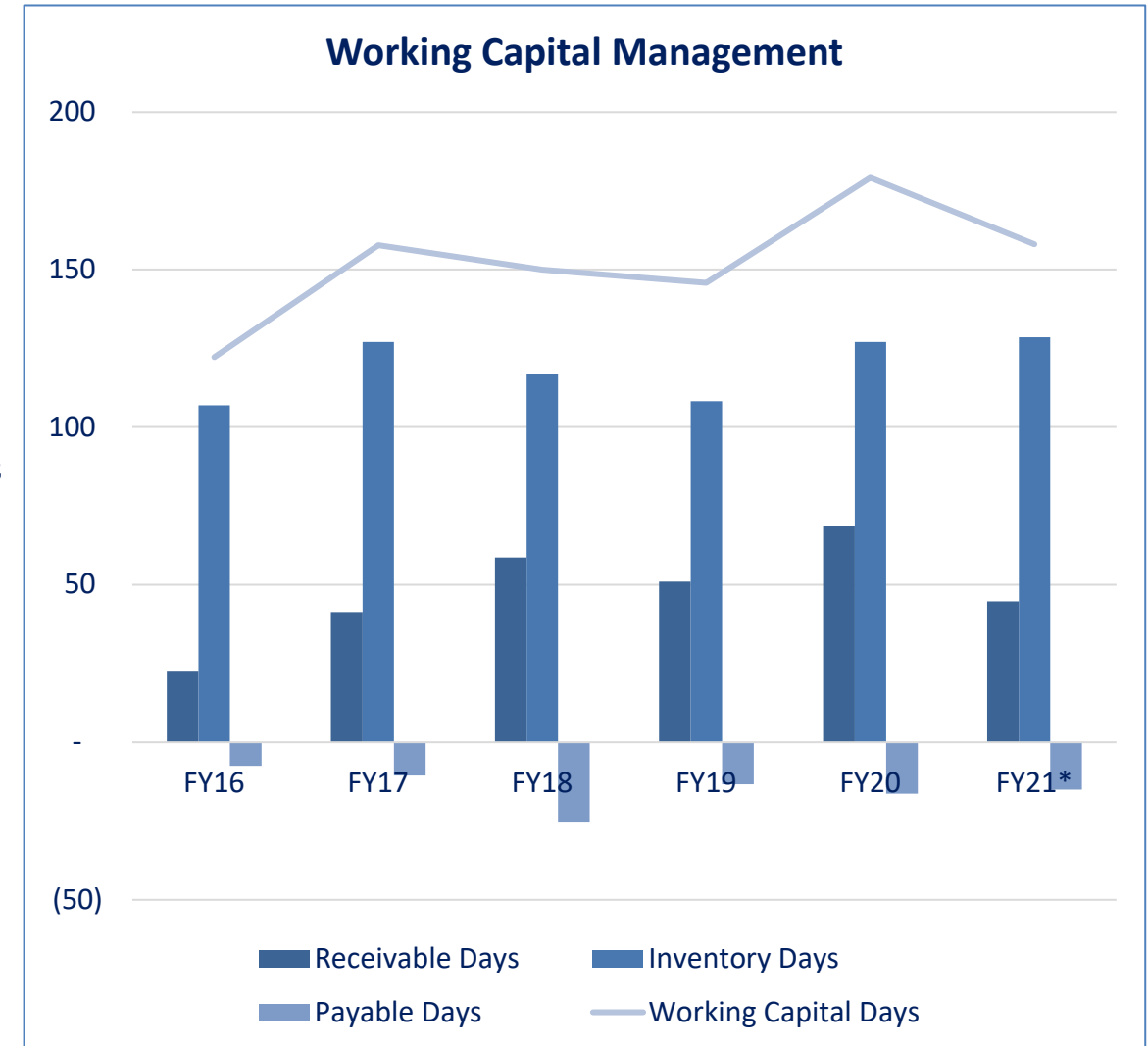


* Figures are estimated for FY21, on the basis of 6MFY21 data.

** Figures are based on financials of PACRA rated clients.

Financial Risk | Working Capital Management

- Most of the Sector’s working capital needs are met through discounted Short Term Borrowings – Export Refinance Facilities (ERF).
- **Workings Capital days:** Working capital days are estimated to reduce to ~158 days during FY21 (FY20: ~179 days) due to a significant dip in receivable days as late payment pressures induced in by COVID-19 pandemic substantially eased off in FY21.
- **Inventory days:** The Sector’s inventory days are expected to remain largely stable around 130 days equivalent to ~4.2 months average sales. This is primarily because working capital pattern is aligned to the rice crop cycle. Most of the exported rice is majorly offloaded following December, after the harvesting season. Milled Rice stock levels at December end are, therefore, generally high, which are largely offloaded in the first quarter of the next year.
- **Receivable Days:** In FY21, receivable days are estimated to reduce to ~45 days (FY20:~68 days), with a YoY decrease of ~23 days. All rice exports are secured against either Letter of Credit (LC) or Cash Against Document (CAD).
- **Payable Days:** Average payable days (from FY16 to FY20) are recorded around ~15 days. Since rice is a cash commodity and in order to secure supply of paddy and processed rice, the sector usually makes cash payments and sometimes even advance payment to its suppliers that leads to low payable days.

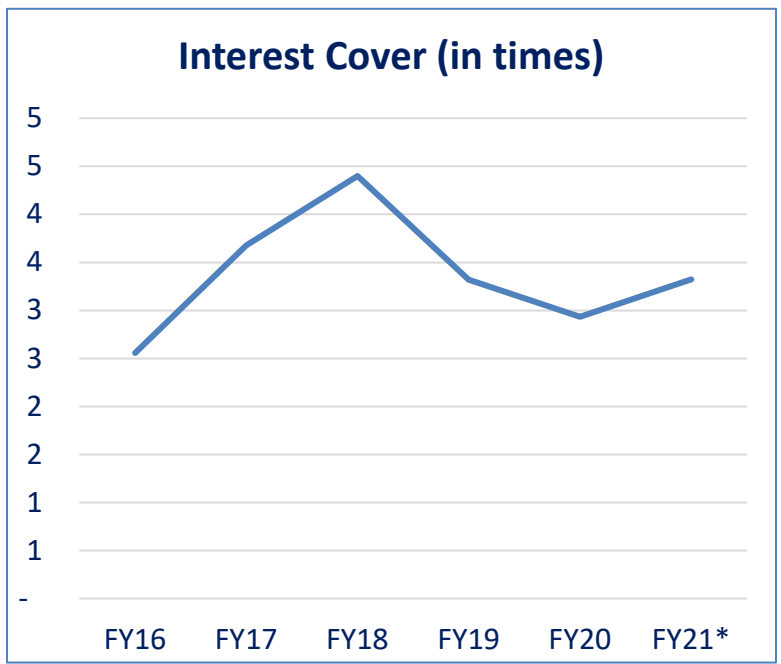
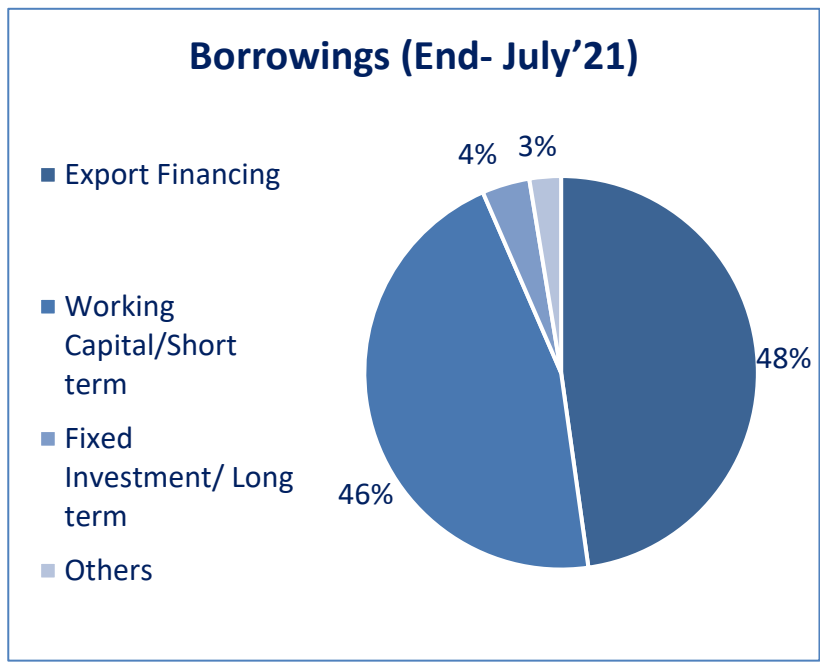
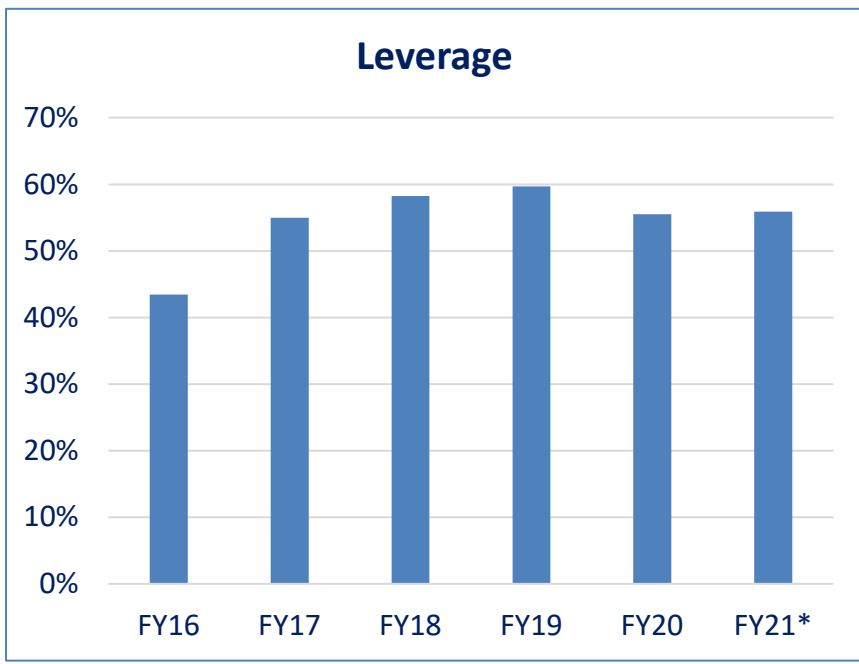


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Financial Risk

- Leverage:** Rice is a moderately leveraged sector. Average leverage (debt to equity) is recorded around ~54.4% (based on last 5 years).
- Borrowing Mix:** The rice processing sector's total borrowing as at End-July'21 stood at PKR~ 140,087mIn (End-July'20: PKR~ 112,382mIn) a spike of ~24.7% YoY basis. The largest component in borrowings is represented by export refinancing, i.e., ~47.8%, while working capital/short term borrowings are the second largest reflecting ~45.7% of the total borrowings. Given high working capital and low capital needs, more than ~90% of the sector borrowing are short term in nature. Significant reliance on short term borrowings makes the business more prone to financial risk.
- Interest Cover:** The average interest cover of the sector is recorded around ~3 times (based on last 5 years), which slightly improved in FY21: ~3.3x (FY20:~2.9 times).

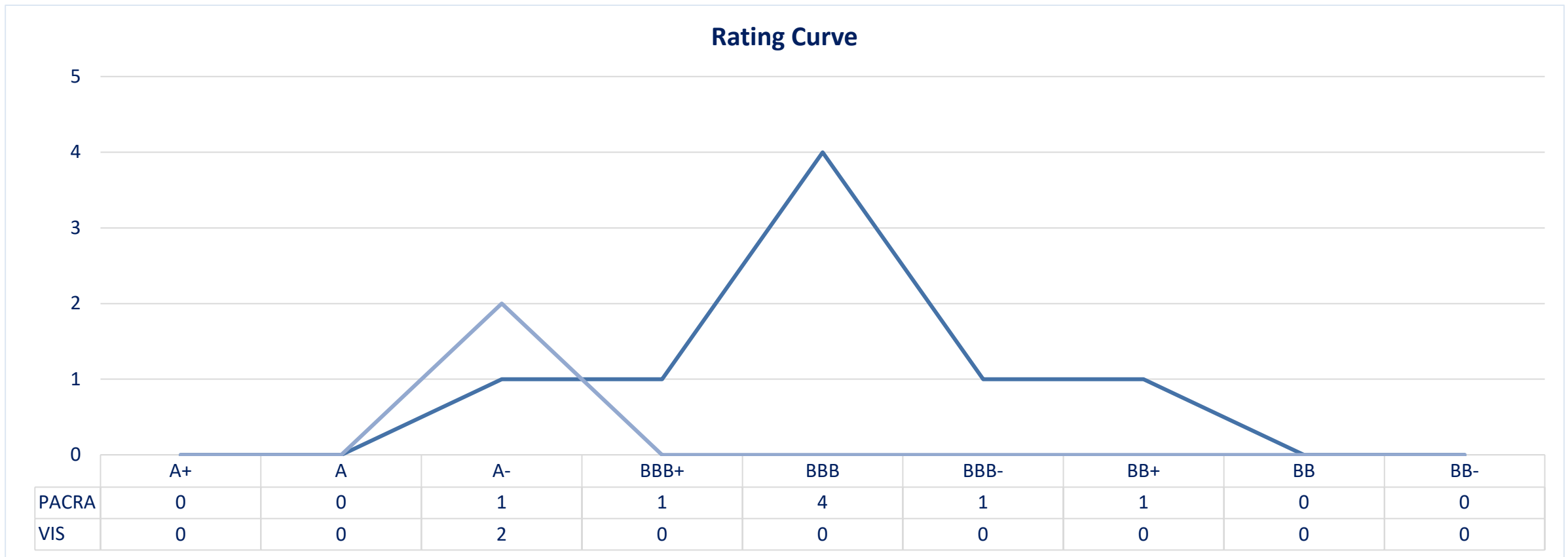


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Rating Curve

- PACRA rates 7 clients, while VIS rates two clients in the rice sector.
- Rating Bandwidth of the sector ranges from BB+ to A-.



SWOT



Outlook: Stable

- Rice holds an important place in the agriculture of Pakistan. After wheat, it is the second main staple food. Rice is significant for earning foreign exchange for the country and it constitutes a prominent share of the country's total export.
- During FY21, local rice production, consumption and area under cultivation have witnessed an upward trend. However, the yield remained stagnant during the period due to low investment in hybrid seeds and agricultural techniques. Pakistan has significant room for yield growth as local yield is five times lower than Australia, the country with highest yield in the world.
- Export market remained challenging during FY21 owing to stiff competition from India, disturbance in global trade and significantly high freight charges. High freight charges and competition may drag profit margins of rice exporters during FY22, however, the intensity of competition is expected to cool-off in the days to come. Pakistan securing its GI tag for basmati rice is also a positive development. Meanwhile, with robust local demand and rising population, domestic consumption is expected to continue an upward momentum.
- The sector is characterized with high working capital needs with inventory and receivable days following a cyclical pattern based on crop cycles. Significant reliance on short term borrowing amid low payable days increases the financial risk of the sector. However, comfort is drawn from improved interest cover and robust demand of cash commodity.
- Going forward, local production will remain exposed to rising environment challenges and water scarcity. Investment in research & development and support & training of local farmers is imperative for future growth. Moreover, the increase in interest rate of 25 basis points, would partially impact the Sector, as almost half of the borrowings constitute export refinance (ERF), for which the interest rate is unchanged. On the other side, recent depreciation of PKR against USD would provide some bargaining power to local exporters and hence will augment their topline.

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