



# Rice Sector An Overview



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## SNAPSHOT

- Rice is the staple food for more than half of the world's population with almost ~500mln MTs 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. Based on where it is grown, rice can be categorized in the following categories:
  - ❖ **Indica:** Grown in tropical and sub-tropical regions and accounts for approx. ~75% of the global rice trade. (Pakistan's IRRI rice belongs to this category).
  - ❖ **Aromatic** (Jasmine & Basmati): Grown majorly in Thailand, Vietnam, India and Pakistan. It accounts for ~16%-18% of the World Rice Trade.
  - ❖ **Japonica:** Grown in Regions with cooler climates and accounts for ~5%-6% of global trade.
  - ❖ **Glutinous:** Majorly grown in Southeast Asia, and contributes to the remaining share of world trade.

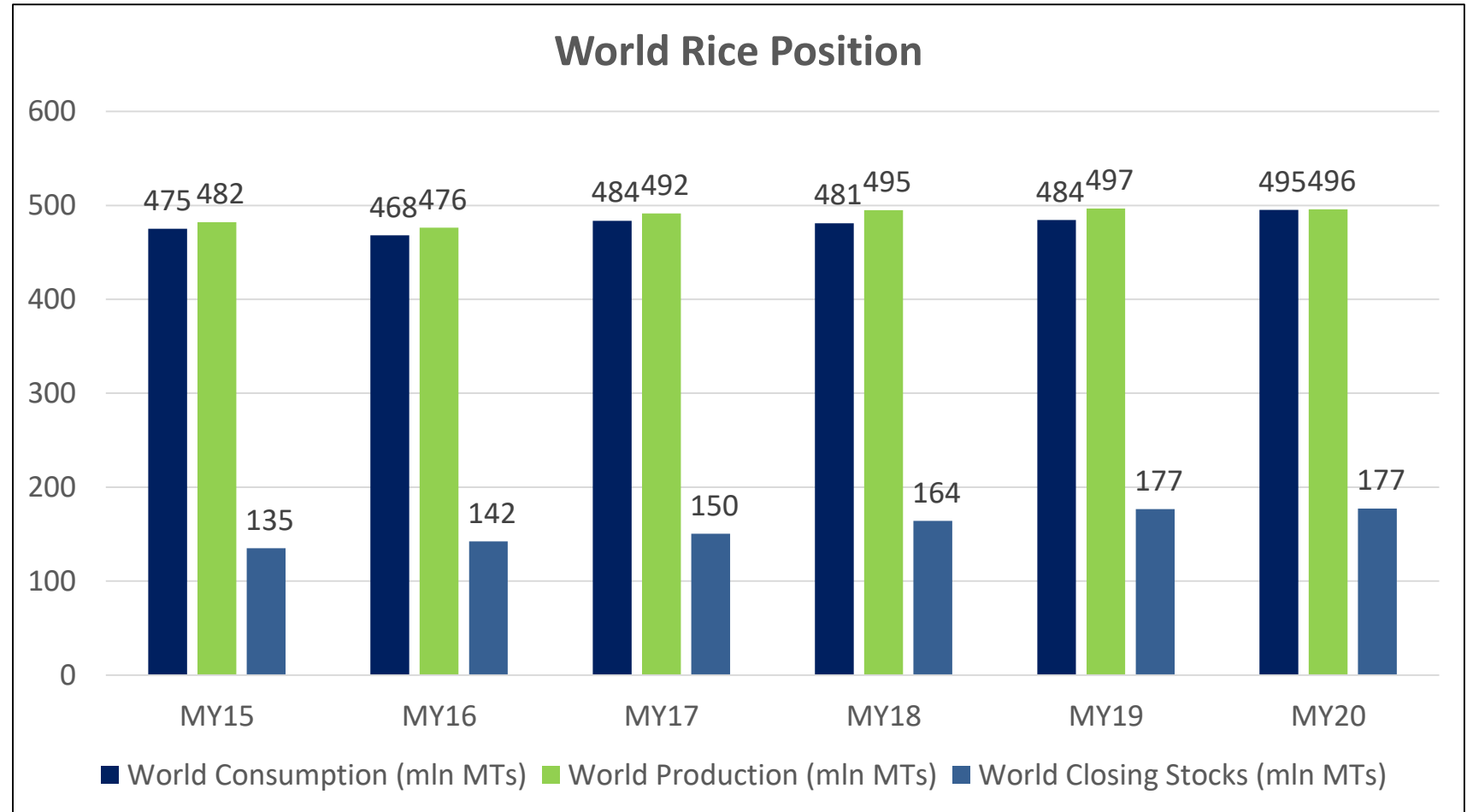




# RICE | GLOBAL INDUSTRY

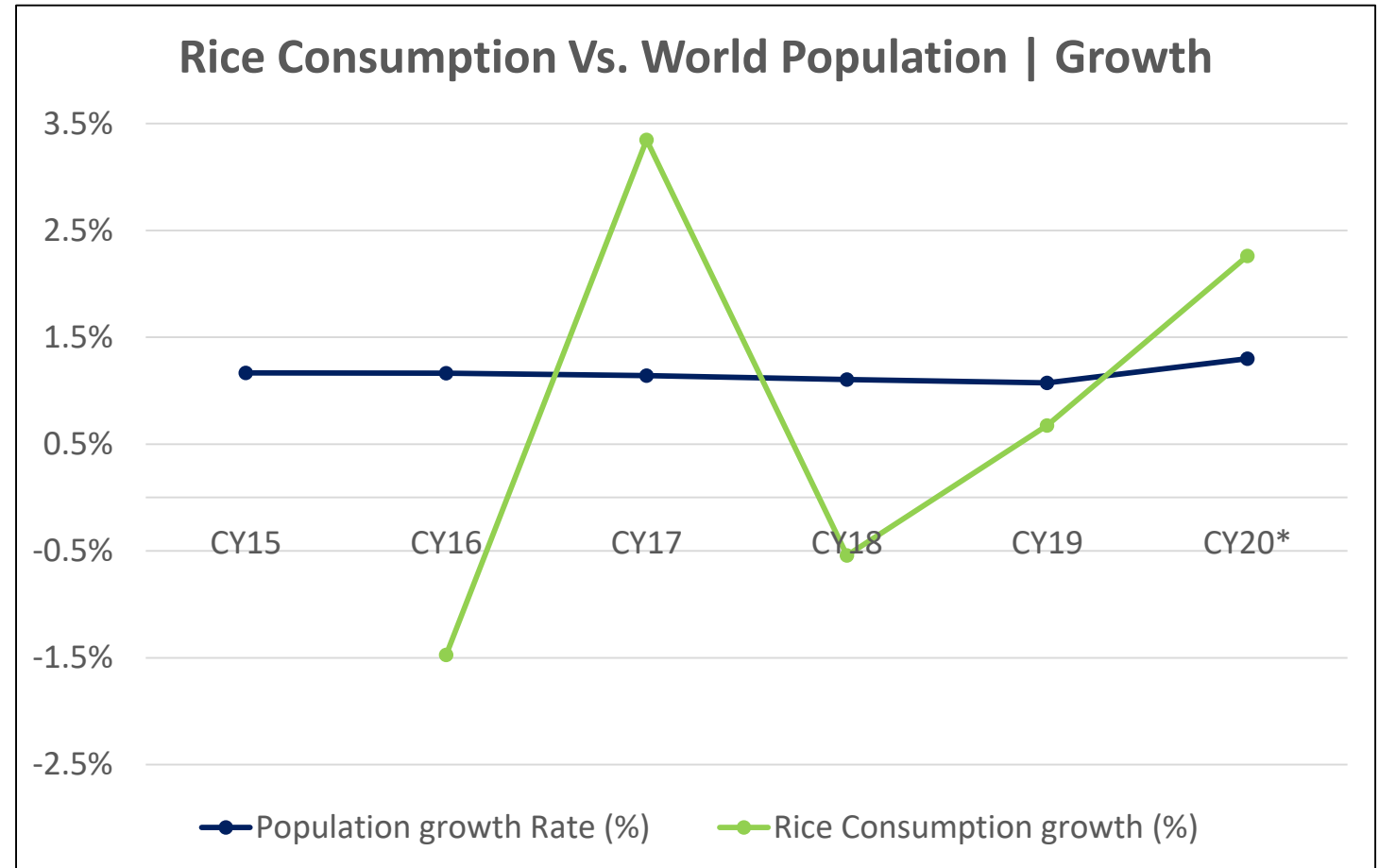
## STATISTICS

- Average World Production and Consumption of rice have grown by ~0.6% and ~0.9%, respectively, from MY16 to MY20. There have, however, been several varying patterns on a YoY basis, as production and consumption grew by ~3.2% and 3.3% in MY17 and then took a drop to ~0.7% and negative 0.5% in MY18.
- 2016 production levels for Thailand and India remained low. On the trade front, Nigeria – one of the largest importers, reduced its imports, impacting the global trade pattern as well.
- Global stocks are dominated by China and India. Total stocks as a % of world production stand around 30% - 35%.

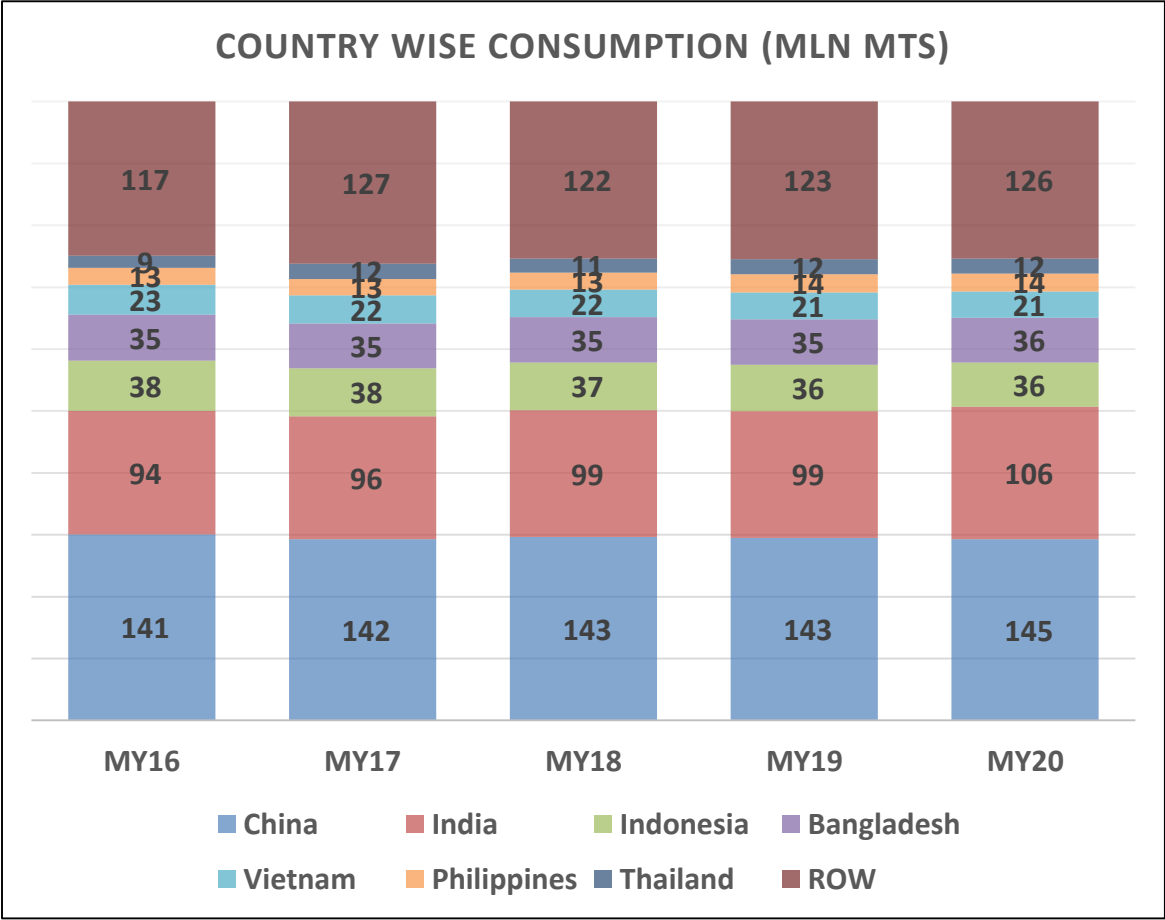
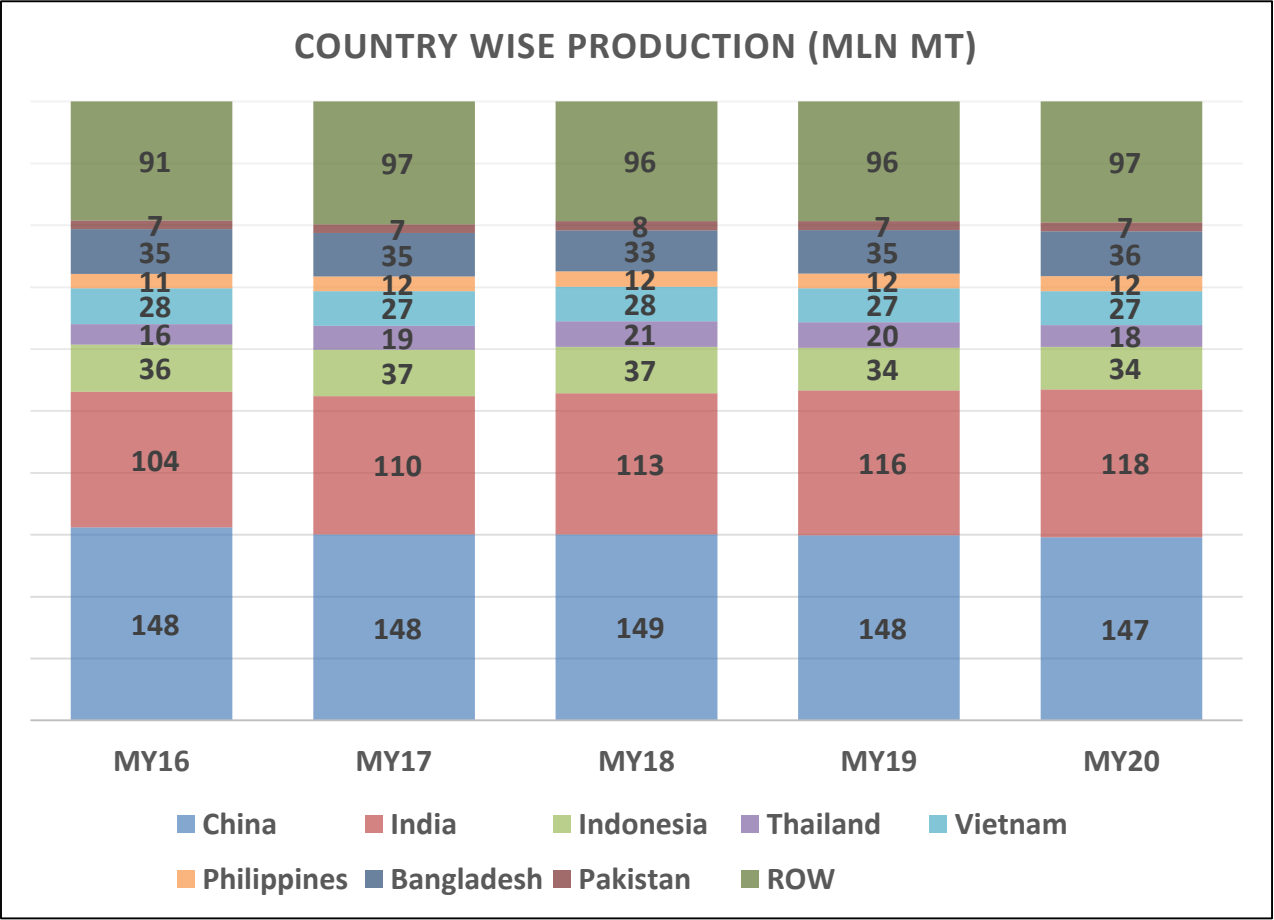


## Is Rice Consumption & Population trend Relatable?

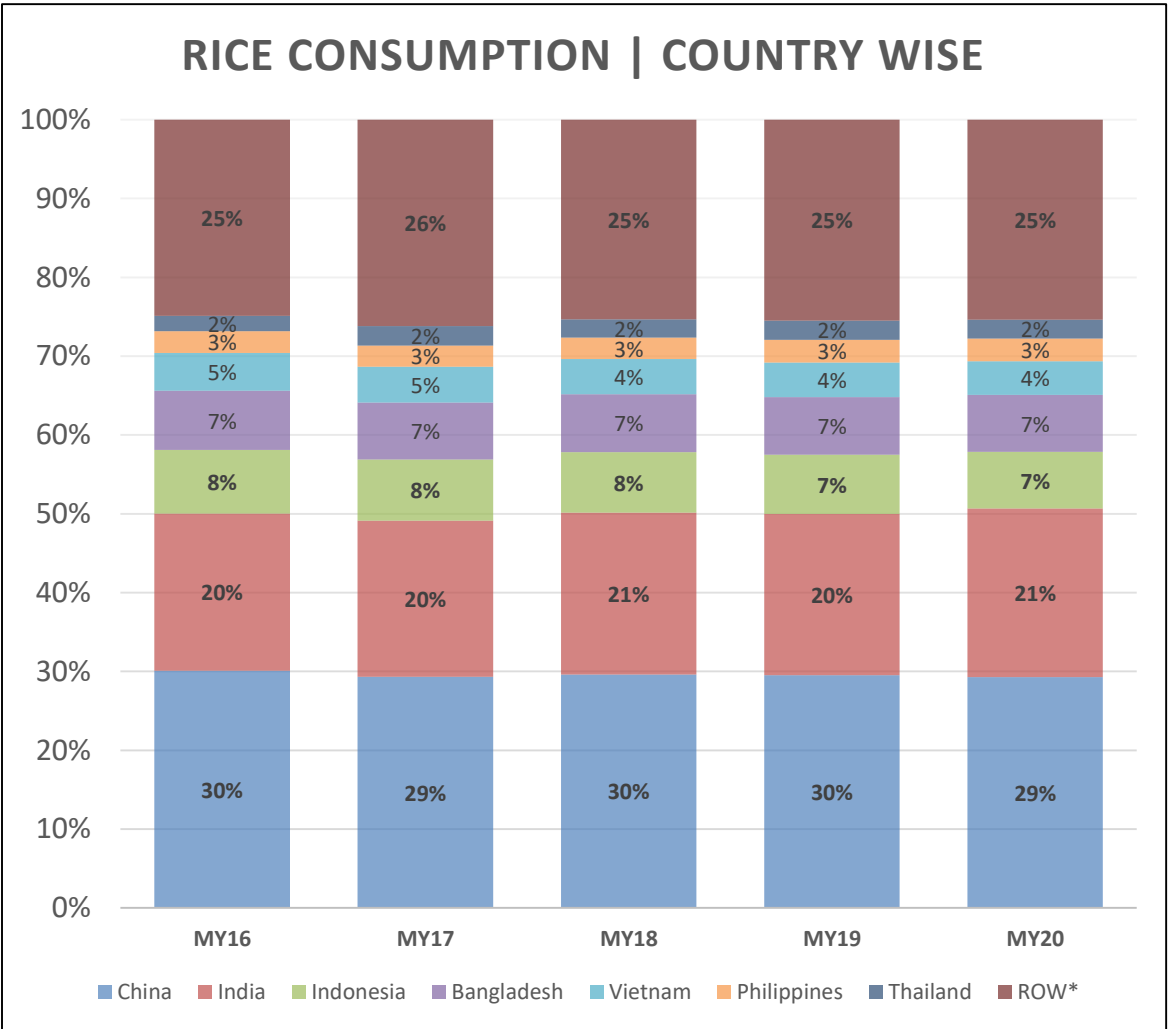
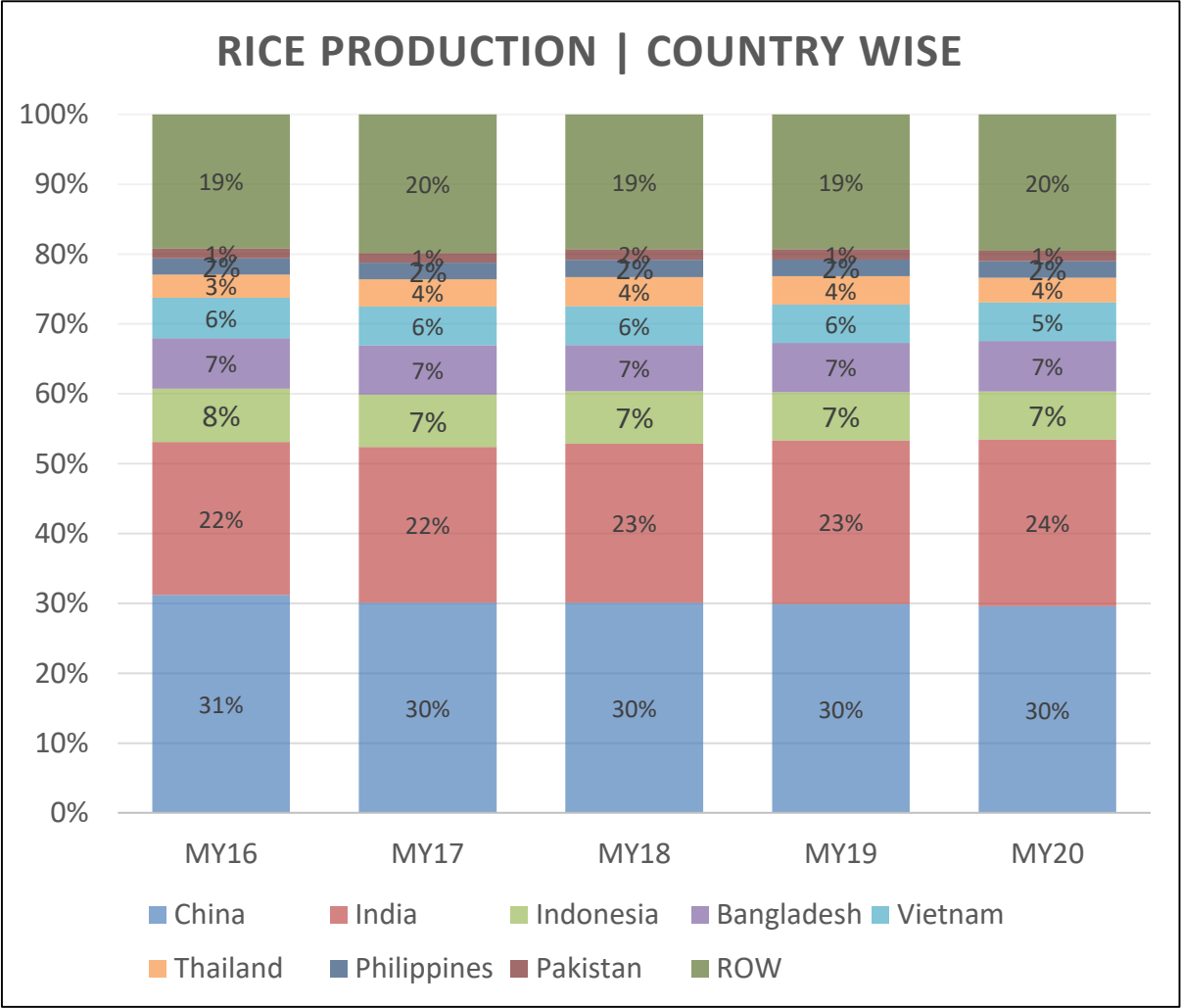
- World average population grows at a rate of ~1.2% (CY16 – CY20), with very low variations on a YoY basis.
- Meanwhile, rice consumption patterns recorded an average growth of ~0.9% through these years. Unlike population growth, rice consumption trend depicts volatility. In CY17, world rice consumption grew strongly by ~3.3%, while dropping to a negative 0.5% in CY18.
- Though rice is a staple crop for many countries, the following factors can be construed to be additional contributing factors to the consumption patterns of the crop:
  - ❖ Crop Output and Yield in a particular season.
  - ❖ Availability of Substitutional food crops.



Global Market Shares | Production & Consumption

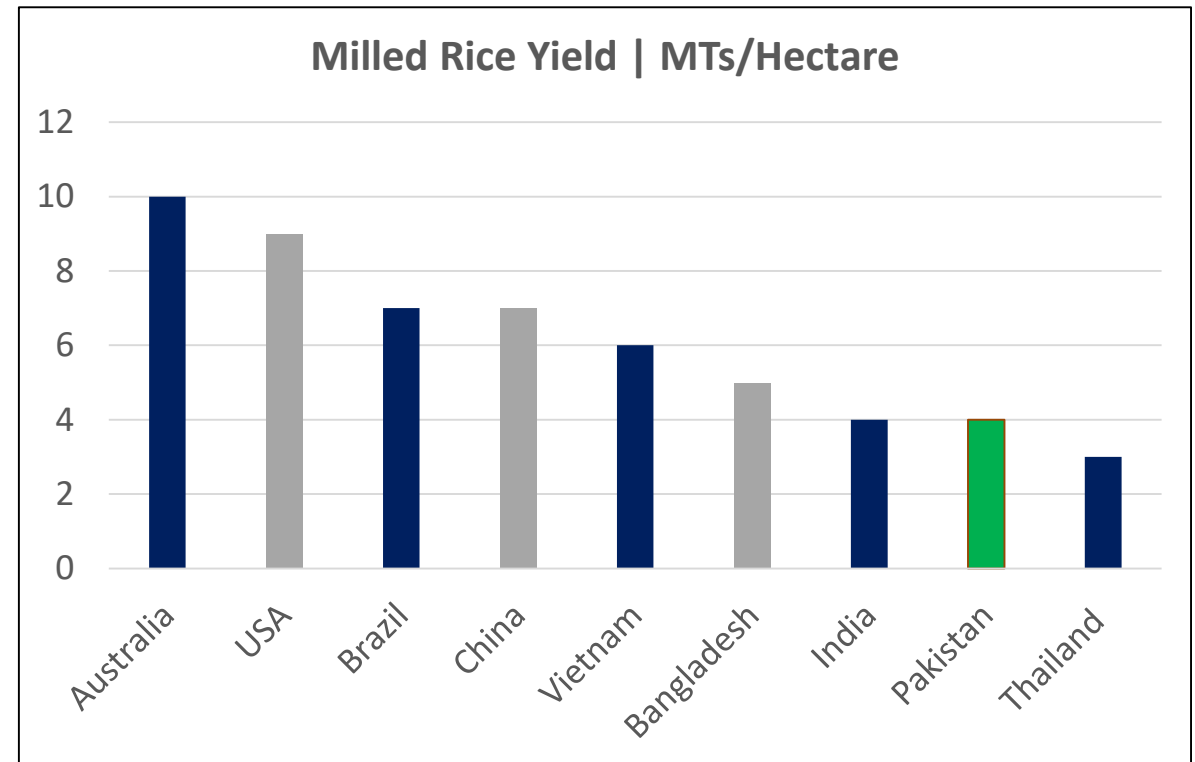


## Global Market Shares | Production & Consumption



## Average Yields

- Rice Average yield is a derivative of factors such as (i) quality of seed (ii) agricultural technique (iii) climatic conditions and (iv) farmer skillset.
- Australia ranks the highest in terms of average yield producing approx. 10 MTs tons per hectare.
- Among Regional Players, India and Pakistan register a yield at par of almost 4 MTs tons per hectare, while Bangladesh's output exceeds at approx. 5 MTs per hectare.
- Thailand's yield continues to remain low at approx. 3 MTs per hectare mostly due to climatic conditions, i.e., droughts.
- World's lowest yields are mostly recorded in the African Region countries such as Liberia and Cameroon where water availability is low.

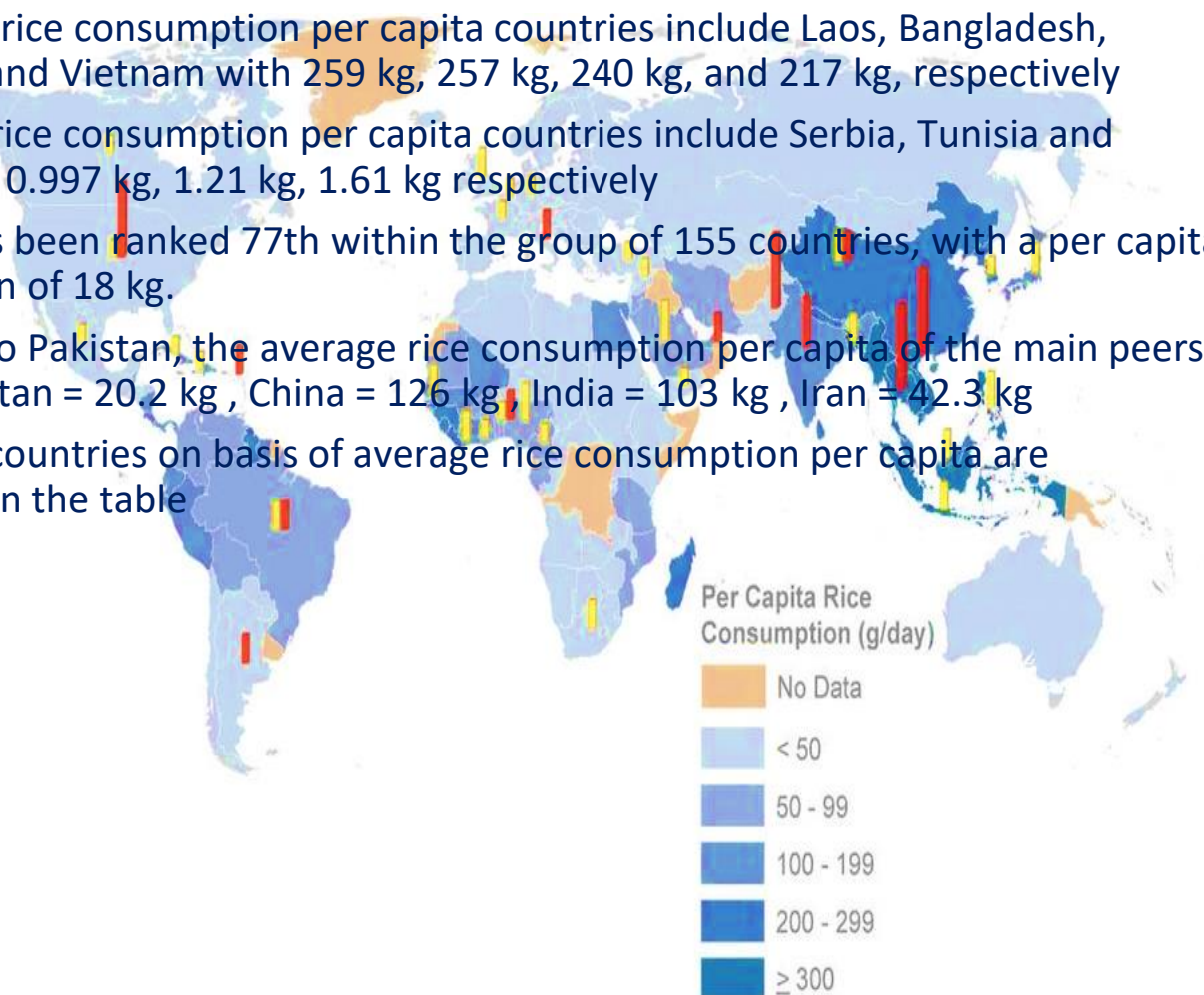






## Per Capita Consumption

- The highest rice consumption per capita countries include Laos, Bangladesh, Cambodia, and Vietnam with 259 kg, 257 kg, 240 kg, and 217 kg, respectively
- The lowest rice consumption per capita countries include Serbia, Tunisia and Poland with 0.997 kg, 1.21 kg, 1.61 kg respectively
- Pakistan has been ranked 77th within the group of 155 countries, with a per capita consumption of 18 kg.
- Compared to Pakistan, the average rice consumption per capita of the main peers is; Afghanistan = 20.2 kg , China = 126 kg , India = 103 kg , Iran = 42.3 kg
- The top 10 countries on basis of average rice consumption per capita are mentioned in the table



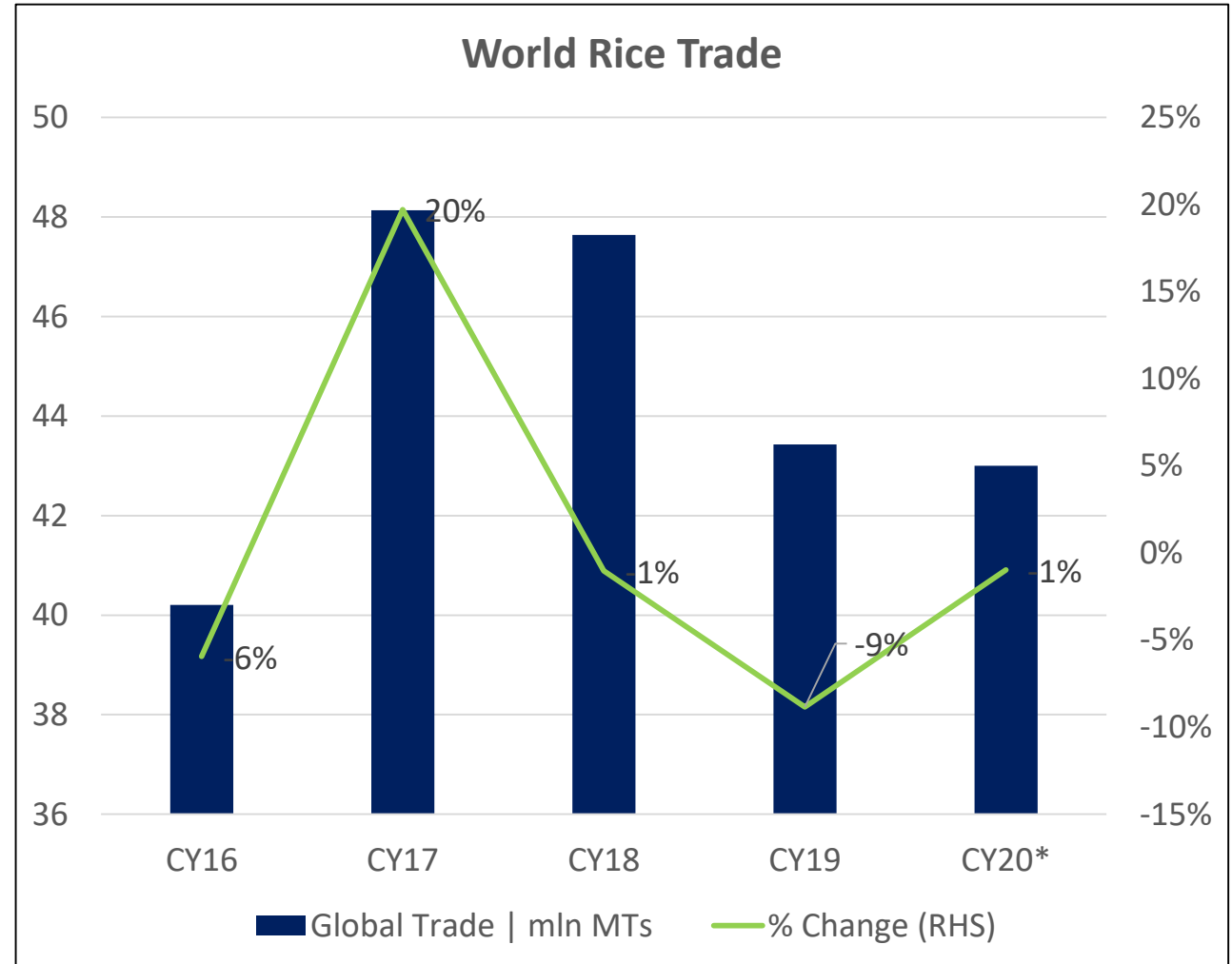
Sr. No.	Country	Average Rice Consumption Per Capita – kg
1	Laos	259
2	Bangladesh	257
3	Cambodia	240
4	Vietnam	217
5	Indonesia	211
6	Myanmar	185
7	Sierra Leone	182
8	Thailand	176
9	Philippines	170
10	Sri Lanka	163
	<b>Pakistan</b>	<b>18</b>
	<b>World</b>	<b>78</b>

Average rice consumption per capita of

approx. **80** kg

## Trade

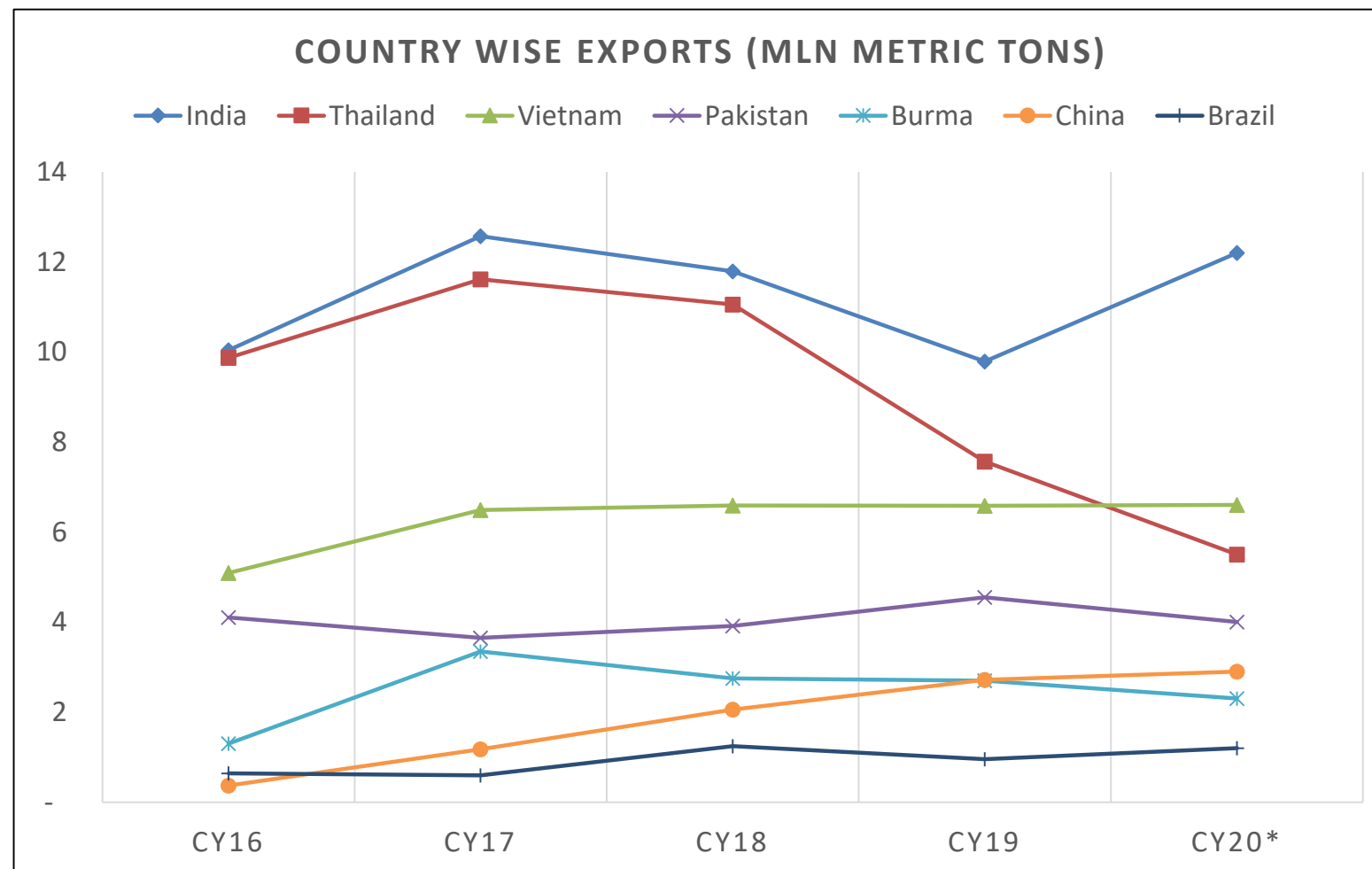
- Almost ~9% of the Global Rice demand is met through import export.
- India is the Largest Exporter of Rice followed by Thailand, Vietnam and Pakistan.
- Global Rice trade plunged by ~9% in CY19 due to lower exports from India and Thailand – the two largest exporters. Indian Exports lost their share with Iran and EU, which contribute the highest to Indian rice export. Drop was majorly owed to strict pesticide residual laws applicable in EU, and international embargos on Iran. Similarly, overall production and trade levels were low in 2016 owing to low outputs from Thailand and India, and less import demand from Nigeria. The trend was reversed in 2017 with higher demand stemming from China and sound outputs from India and Thailand.
- Lately, Thailand Rice Export is witnessing a YoY decline owing to shortages of water and stronger baht.





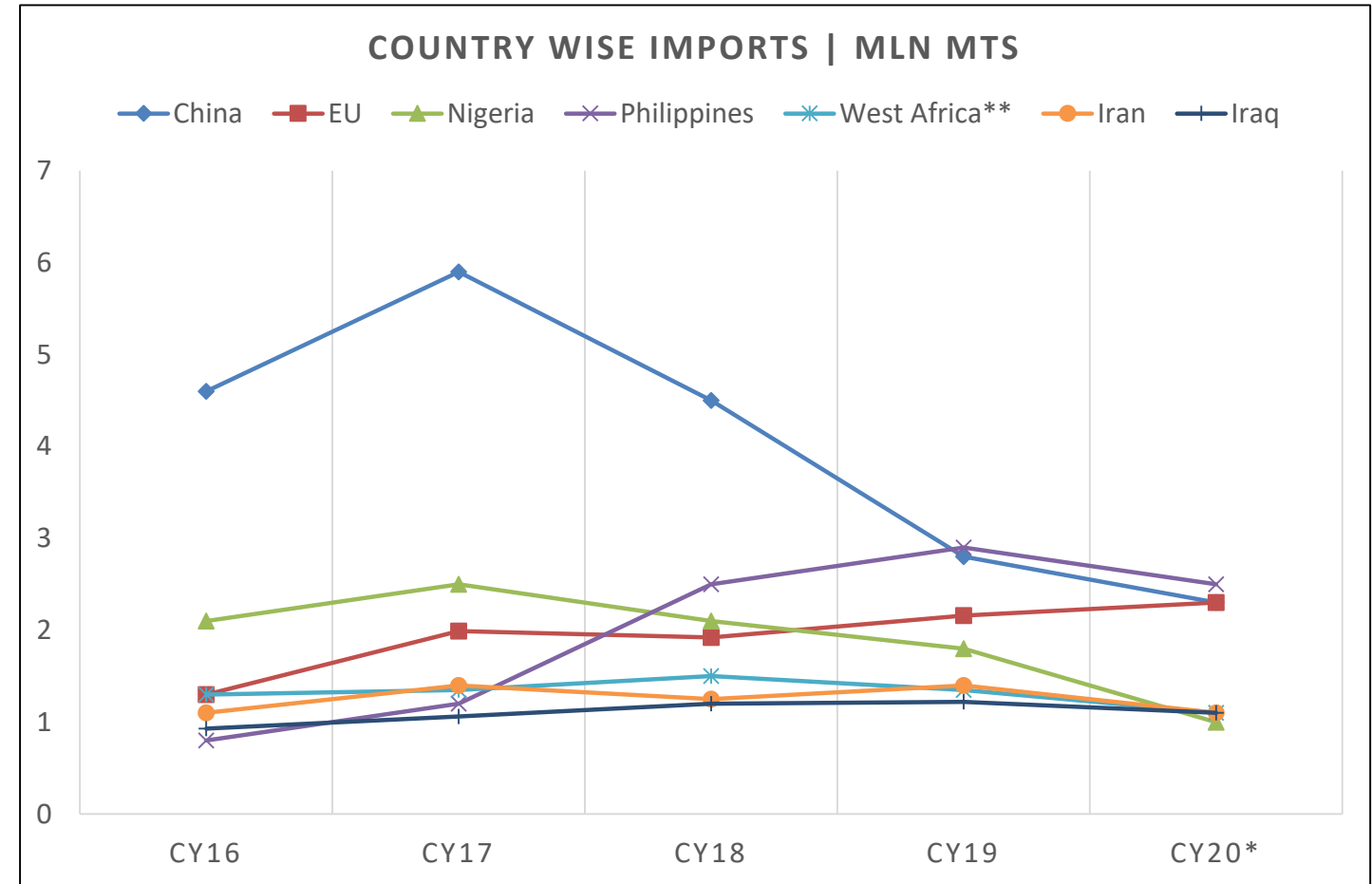
## EXPORTERS | CHANGING TRENDS OR KEEPING UP STABILITY?

- On an overall level, global rice trade volume has remained largely stable in CY20 at ~43mln MTs (CY19: ~43.4mln MTs), despite the outbreak of Covid-19 pandemic. This is supported by increased demand from the African region and panic buying of rice stocks to avoid shortages under lockdown situation.
- On Country Level, Indian Rice Export rebounded to touch ~12mln MTs in CY20 after witnessing a dip of over ~2mln MTs in CY19. The growth is majorly taken from Thailand rice share, which has suffered over the last couple of years on the backdrop of water shortages.
- Myanmar and China are also emerging as global rice exporters



## IMPORTERS | FRAGMENTED OR CONCENTRATED MARKET?

- Rice Import Market is fragmented (unlike Exports), spreading fairly across the Globe and covering major regions like EU, Middle East, African Countries, Iran Iraq, Mexico, Japan and others.
- China – the largest producer of rice, has gradually been able to become self sufficient in meeting its demand through domestic production and has lately turned around its position as a net exporter of rice.
- 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



\*CY refers to data till Sep'20

\*\*West Africa refers to Cote d'Ivoire

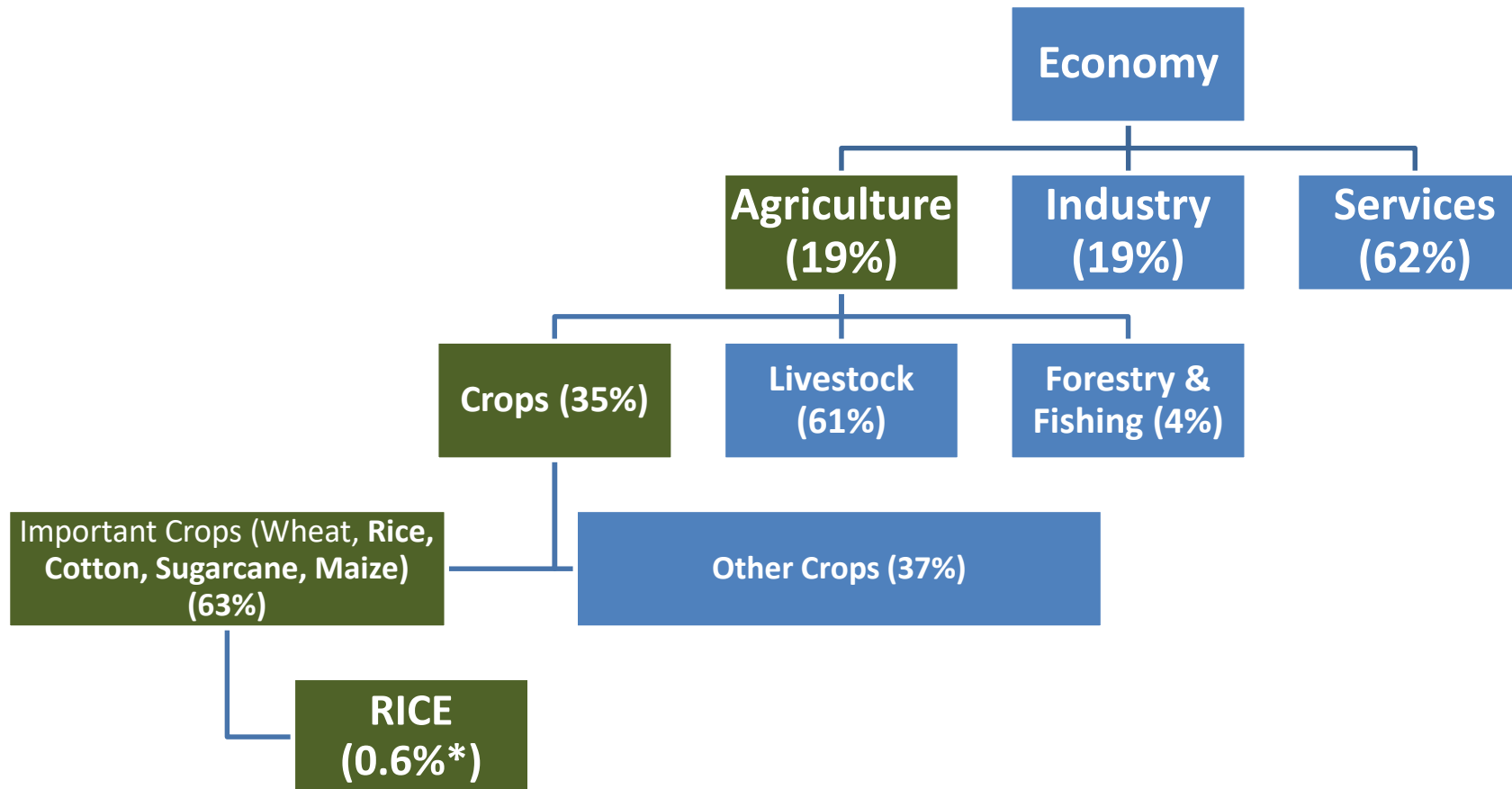
WORLD Average Price (USD/MT) f.o.b	CY16	CY17	CY18	CY19	9MCY20
U.S Long Grain 2.4%	438	456	531	500	625
Thai Parboiled Rice 100%	410	421	431	428	480
India 25%	333	361	374	361	352
India Basmati	860	805	1,027	1,067	930
Pak Basmati	849	795	1,131	982	955
Pakistan IRRI	327	350	360	324	415



- Market led (Unregulated) pricing mechanism exist in most of the rice producing countries. Prices are, therefore, a derivate of demand supply behavior in the major rice trading economies. In 2016, lower consumption in India and softened demand from a few major importers, including Nigeria, kept the prices weak. The trend was reversed in 2017 wherein overall world consumption, including India, improved. The same pattern was reflected in recovered prices.
- From 2017, recovery was seen in the global prices, therefore benefiting Pakistani rice exporters as well.
- In 2019, Pakistani basmati rice prices rationalized given rupee depreciation and general market & crop conditions.
- Amid Covid-19 pandemic, many countries, including Thailand, suspended their rice exports in anticipation of securing domestic supply in uncertain times. The decision indirectly benefitted Pakistan and India, whose rice exports were not majorly hindered, except for the slowdown in operational and port activities. Prices in the export market, therefore, remained less vulnerable.



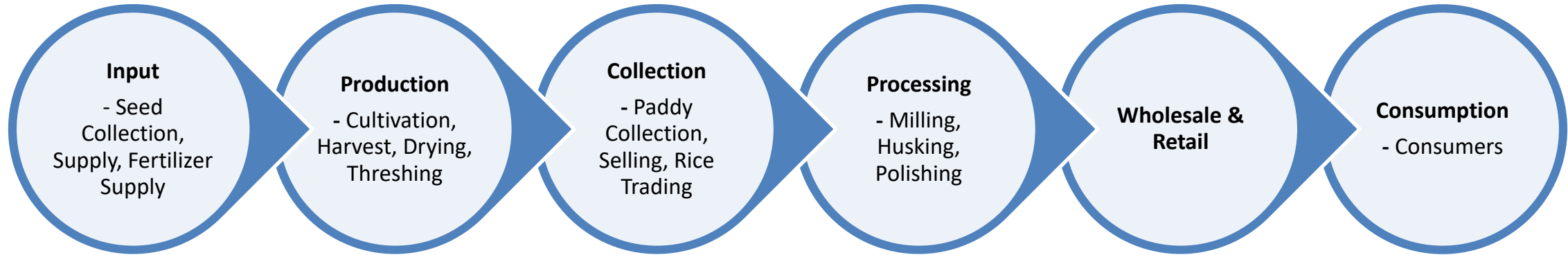
## AGRICULTURE OVERVIEW



\*refers to rice contribution to GDP

- Pakistan's economy is divided into three Segments: Agriculture, Industry and Services.
- During 9MFY20, the Agricultural Sector grew by ~2.7% (up by 0.58% YoY) despite a negative estimated GDP growth of 0.4%. In the agricultural Sector, crops witnessed a positive growth of ~3%.
- Rice Production increased by ~2.9% in 9MFY20 recording at 7.4mln MTs (9MFY19: 7.2 mln MTs ).
- Others crops include pulses, oilseeds, vegetables and cotton ginning.

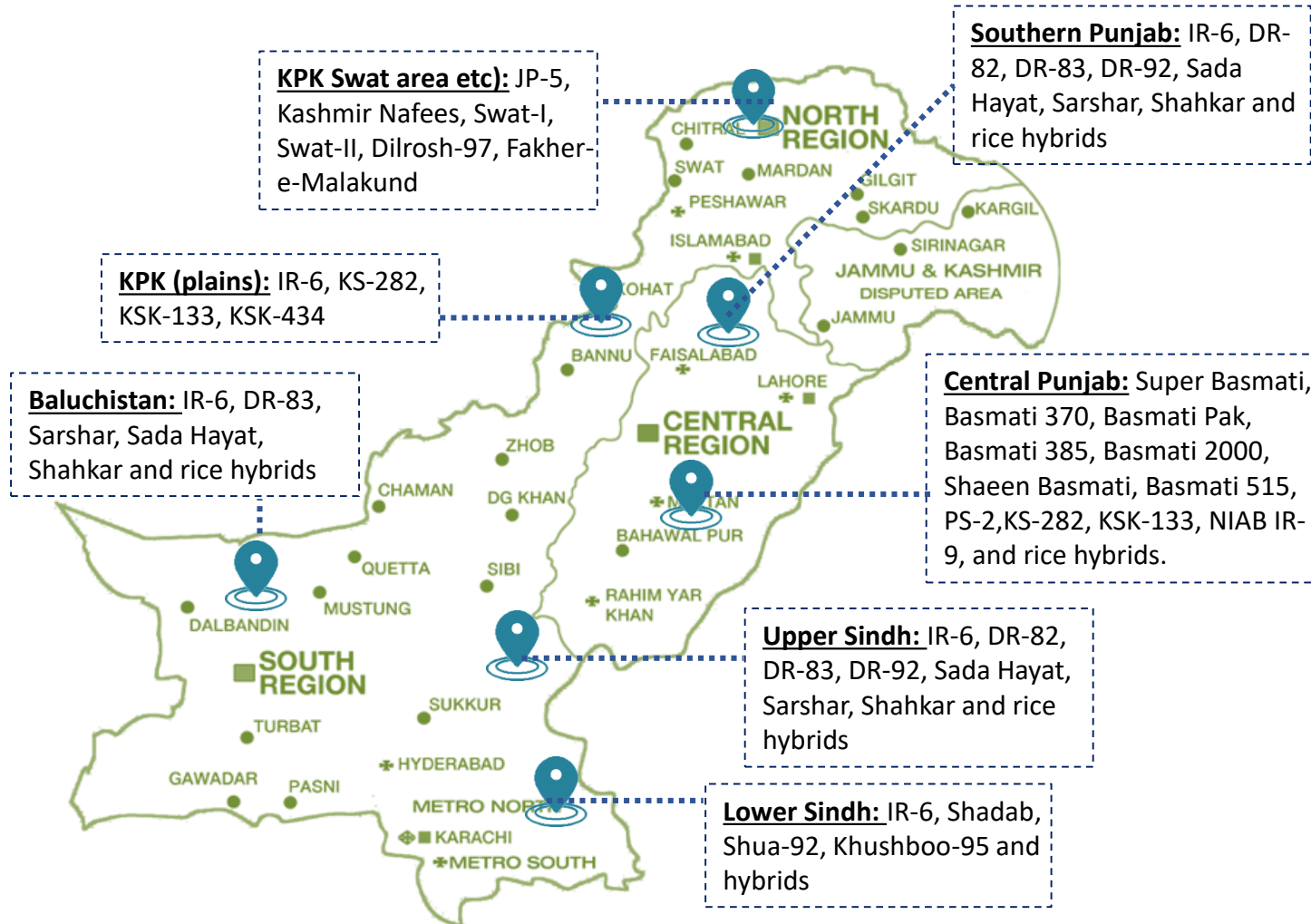
## RICE OVERVIEW



- Rice is a “Kharif” (Summer) crop, whose sowing season starts from April to June and is harvested from October to December.
- Rice – a cash crop, is the second main staple food crop for Pakistan after wheat. It is also the second major exportable commodity after cotton.
- Rice contributes 0.6% to the country’s GDP and 3.1% to the agricultural sector.
- Around 7.4 mln MTs of rice were produced in FY20 (7.2 mln MTs in FY19 – up by 2.9% owing to an increase of ~8% in cropped area for rice in comparison to the previous year.
- Rice supply market is highly fragmented with more than 500 rice millers.
- Almost a half of the country produce is used for local consumption, while the balance is exported (FY 20 Rice exports: mln MT).
- Pakistan’s exports make up more than 8 percent of world’s total rice trade and is ranked the 10<sup>th</sup> in largest rice producing country.

## GEOGRAPHICAL OVERVIEW | Where is Rice Grown?

### Geographical Distribution of Types of Rice in Pakistan



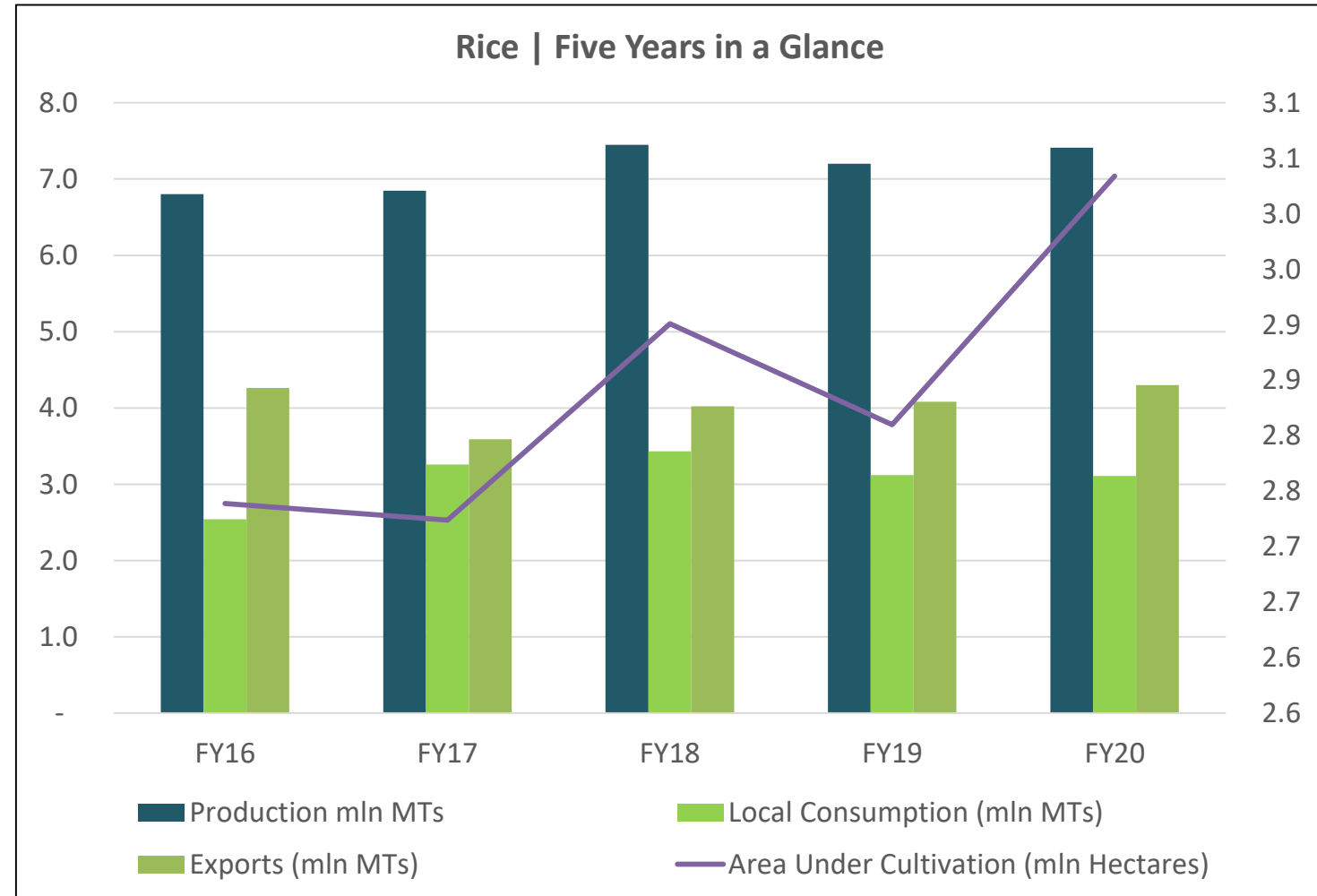
- Pakistan has two major rice-producing regions; Punjab and Sindh. Together, both provinces account for nearly 90% of total rice production.
- Punjab, due to its agro-climatic and soil conditions, produces 100% of the Basmati rice in the country, which is a premium quality and expensive rice as compared 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



# RICE | LOCAL INDUSTRY

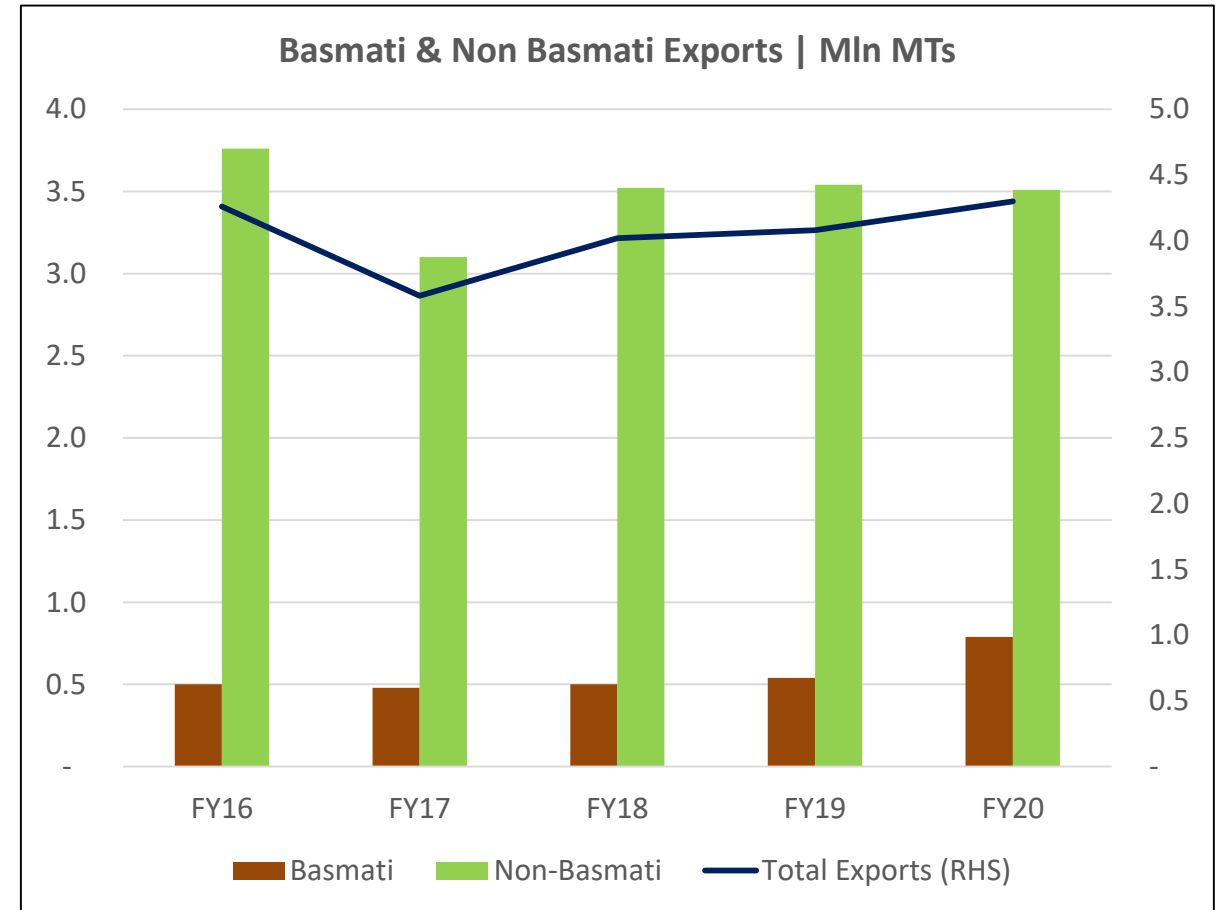
## FIVE YEARS AT A GLANCE

- Despite the outbreak of Covid-19, rice production registered an increase of ~3% in FY20, mainly due to an increase in area under crop, owing to higher domestic prices and availability of inputs on subsidized rates.
- Although the last quarter of FY20 remained a bit sluggish for the exporters due to slowdown in movement and international trade, the overall year exports closed at surpassing the target of USD2bln. This is majorly attributed to an increase in Basmati rice exports during the year, particularly to Iran, where sanctions restricted buying of Indian Basmati rice creating opportunity for Pakistan rice.
- Pakistan's rice consumption increased to 3mln MTs in FY20, meanwhile, area under cultivation increased to 3mln hectares – 8% increase YoY basis.



## Pakistan Exports | The Long Hauling Challenges

- Although rice is the second largest exportable crop of the country after cotton, the country has historically underutilized its potential to earn foreign exchange reserves from its exports.
- 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. Still, non basmati rice forms a major portion of total export quantum. Pakistan has not been successful in increasing its share of Basmati rice exports over the years. The major reasons attributing to this issue are:
  - No policy framework in place to develop agricultural sector and boost the yield and increase arable land of the country.
  - Basmati Rice is majorly consumed locally.
  - Pakistan competes with India in the International Market which has strategically branded itself well in the International community.





## Where does Pakistan Export?

**Top 10 Basmati Rice Importing Countries From Pakistan**

S.No	Country (2018*)	Qty	Value
		['000' MT]	(USD Mln)
1	United Arab Emirates	75	89
2	United Kingdom	67	64
3	Belgium	47	50
4	Oman	32	38
5	Saudi Arabia	28	31
6	Italy	28	28
7	Netherlands	24	23
8	Yemen	22	20
9	Spain	22	21
10	Kazakhstan	19	35
11	Others	137	126
	<b>TOTAL</b>	<b>500</b>	<b>525</b>

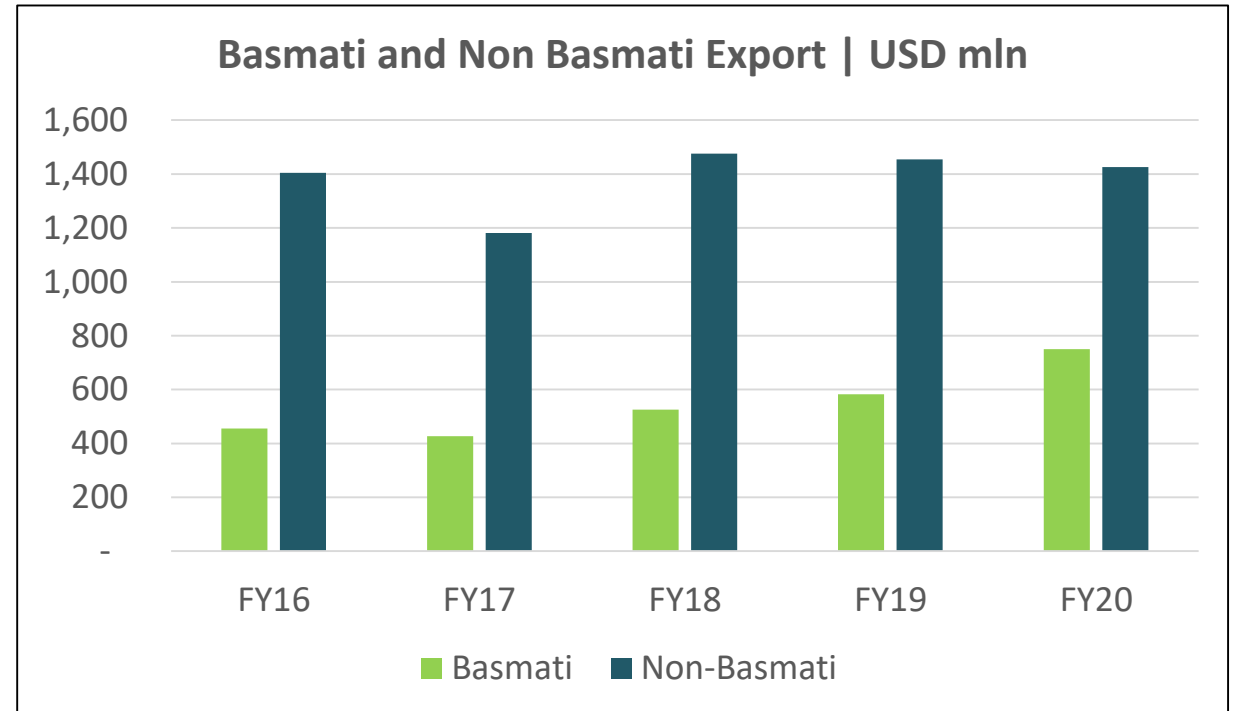
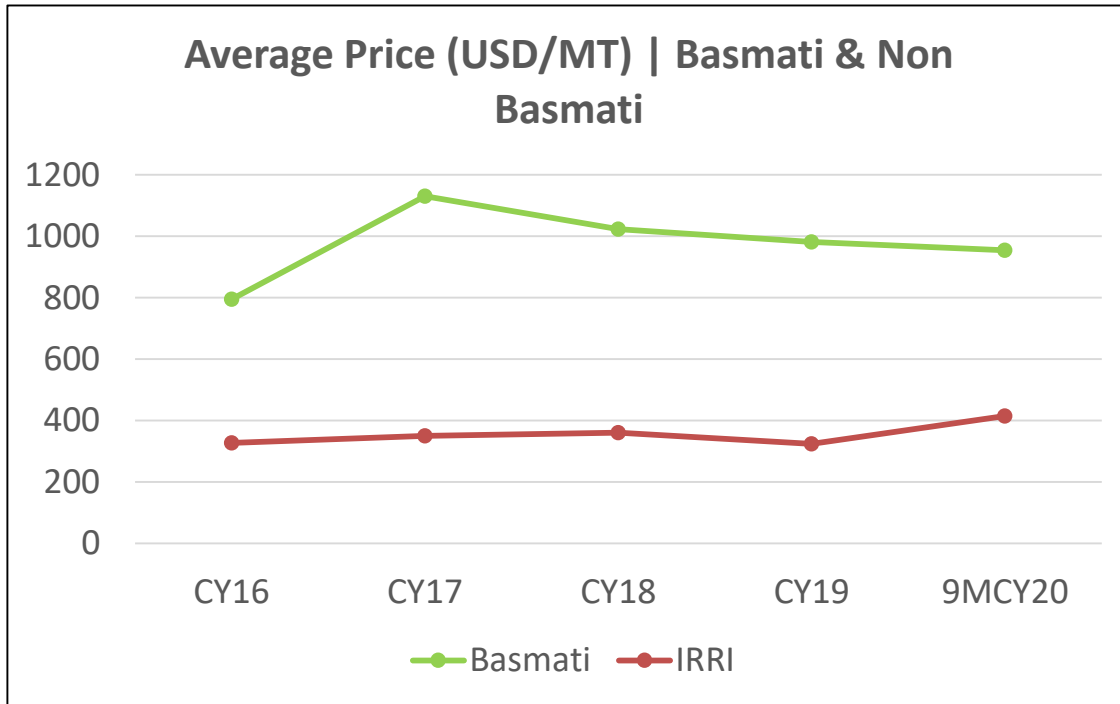
**Top 10 Non-Basmati Rice Importing Countries From Pakistan**

S. No	Country (2018*)	Qty	Value
		('000' MT)	(USD Mln)
1	Kenya	432	165
2	Madagascar	336	120
3	China	267	105
4	Indonesia	264	108
5	Tanzania	171	64
6	Afghanistan	146	63
7	Senegal	125	40
8	Ivory Coast	117	41
9	Benin	117	43
10	United Arab Emirates	110	42
11	Others	1,415	686
	<b>TOTAL</b>	<b>3,500</b>	<b>1,476</b>

\*data pertains to FY18 obtained from REAP

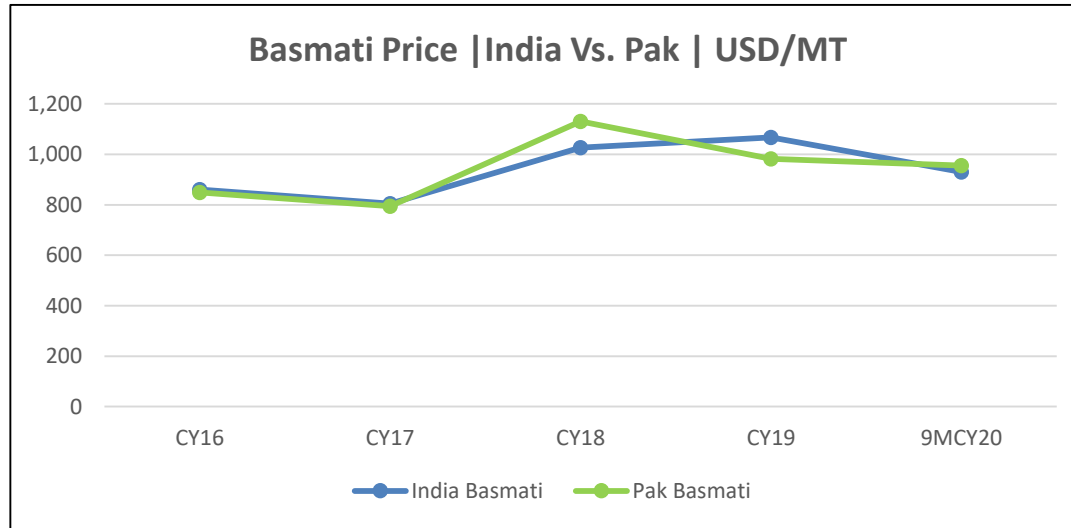
# RICE | LOCAL INDUSTRY

## Basmati & IRRI | Export Price Gap



- Basmati Rice trades at almost double the price of non basmati rice.
- A modest growth in foreign exchange earnings are witnessed over the years on account of restricted share of basmati rice exports.

## India & Pakistan | The Basmati Competition



Parameter	Pakistan	India
Agriculture growth	2.67%	3.40%
Agriculture, value added (% of GDP)	19%	16%
Population (mln)	220	1,356
Rural vs. Urban population share	64:36	69:31
Area - Rice (mln Hectares)	3.0	44
Production (mln MTs)	7.4	118

- Basmati Rice is exported to the EU and Middle East by both Pakistan and India.
- As basmati rice is considered high quality premium grade, it earns healthy foreign exchange for both countries. Price and quality competition, therefore, exists among India and Pakistan.
- Lately, India's exports of basmati rice have decreased in the EU owing to a failure of its producers to meet increasingly strict EU standards on the use of pesticides. This created an opportunity for Pakistan to increase its footprint in the EU market. Basmati proportion in the total country exports, therefore, increased in FY20.
- However, India's latest stringent efforts to secure a Geographical Indication (GI) tag from the EU may result in Pakistan losing its market share to India, if India succeeds in doing so. Strategical growth strategies need to be adopted by Pakistan to secure its position in the basmati arena.

## Business Risks

### OPERATING RISK

- Rice is a basic essential commodity, the second staple food for Pakistan after wheat.
- Since it accounts for approx. ~10% of the cultivated land and 3.1% of the agricultural value addition, the Sector has its own economic significance. Apart from this, it is the 2<sup>nd</sup> largest export crops for the country following cotton.
- Business Risk of the Sector remains low, despite the outbreak of the Covid-19 pandemic, with little disruption witnessed on the operating front.
- On the other side, the potential for the Sector growth has always been undermined owing to the following factors:
  - Production of Rice is confined to irrigated fields, while no sustainable solutions to guarantee water security have been developed.
  - Lack of technological innovations and low quality seeds result in lower yield of the crop, specially basmati, in comparison to the regional countries.
  - High cost of inputs (e.g., fertilizers) discourage small farmers to grow. Additionally, no policy framework has been developed to expand the area under cultivation for rice.
  - Another concern is the locust invasion reported by farmers in Punjab's Okara and Pakpattan districts. Measures to contain the invasion and prevent further crop losses are required on a timely basis.





### Basmati

- Stiff competition from the Indian basmati exports in the EU and Middle East region and India's strategically strong position in the International Market, being the largest exporter.
- India's stringent efforts to obtain Geographical Indication (GI) tag from the EU and the probability of removal of Iran restrictions on Indian Rice imports pose a challenge to Pakistan's basmati export.
- Global Basmati rice has a low concentration with India making almost ~70% of the world basmati rice production. However, Pakistan's ability to increase its footprint in the International Market remain low due to inefficiencies in its agricultural system and increasing in-house consumption.

### Non-Basmati

- Pakistan's non basmati rice is majorly exported to the African Countries, where the country faces competition majorly from India in terms of crop availability and pricing. Though medium term market fundamentals remain sound, the following business risks have emerged lately:
  - Panic buying and stock hoarding by the Buyers assuming over consumption has caused a Covid-19 lull. 1QFY21 exports fell drastically by ~20% in comparison to the same period last year. Major impact was witnessed in July and Aug, with September closing in better results.
  - Higher production in India makes it more price competitive in the Regional Market thus hampering demand for Pakistan rice.
  - Low Quality Seeds produce less exportable quality rice.







## Financial Risk

### WORKING CAPITAL

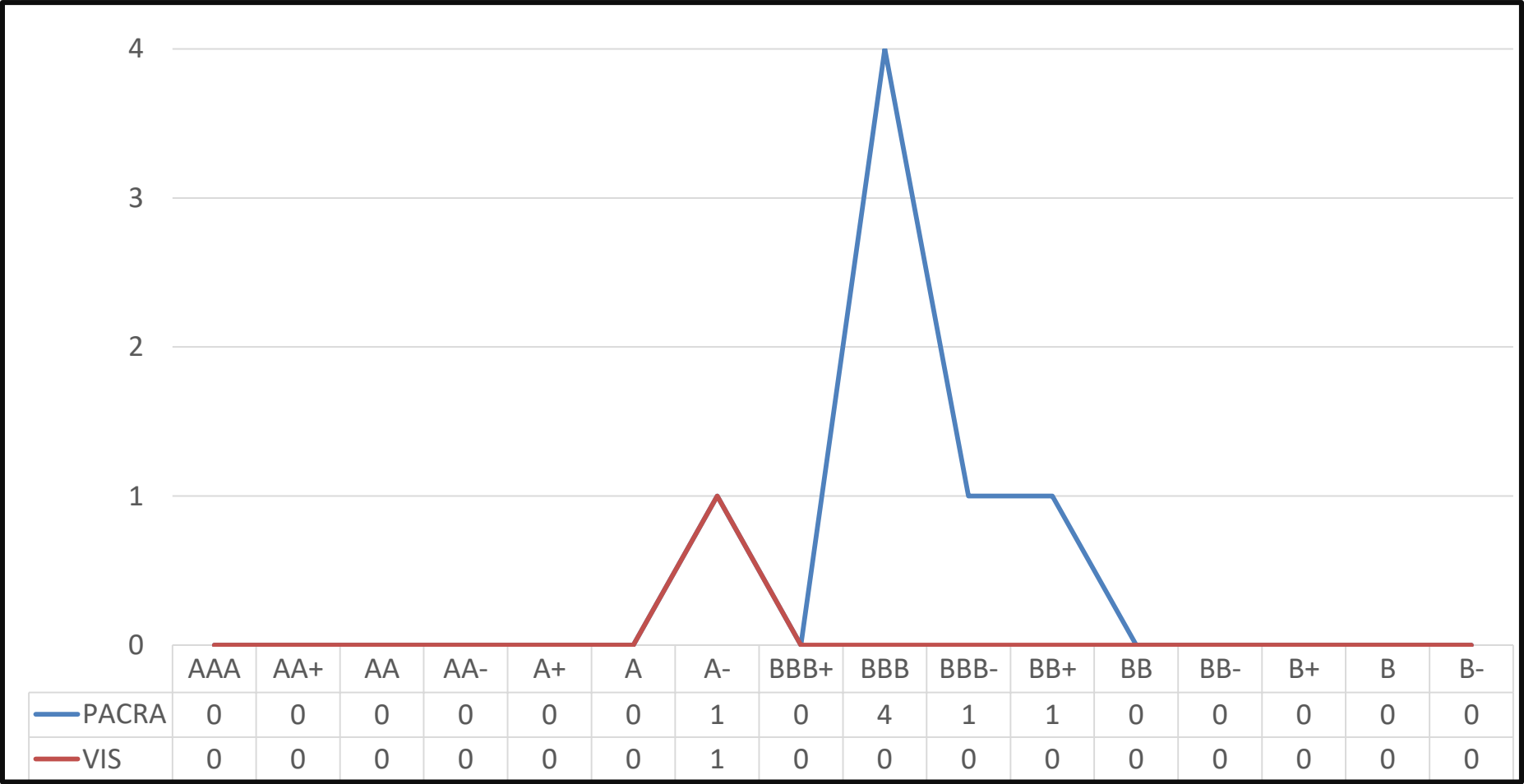
- Rice Working capital pattern is aligned to its crop cycle. Most of the Exported Rice is majorly offloaded following December, after the harvesting season. Milled Rice **stock levels** at December end are, therefore, generally high, which are largely offloaded in the first quarter of the next year.
- On the **receivable** front, all Rice Exports are secured against either Letter of Credit (LC) or Cash Against Document (CAD). The turnaround time for receivables has increased for the Sector ever since export inclination has moved from China to the African countries, due to the increased lead time. However, better prices from the African Region earn better inflow.
- Most of the Working Capital needs of the Sector are met through Short Term Borrowings – Export Refinance Facilities (ERF).

### BORROWINGS

- Rice is a moderately leveraged Sector.
- Borrowings of the Rice Exporters majorly comprise Short Term Export Refinance Facilities (Scheme-II) (3% Mark-up), keeping interest cost low.
- As per SBP's report on Credit Loans, total borrowings of the Rice Sector clocked in at PKR~9bln in FY20 (PKR~11bln FY19).
- Financial Risk of the Rice Sector Remains Low.



Rating Curve



- Rating bandwidth for Rice Sector ranges from BB+ to A- with major chunk in the BBB category.
- Ratings are a reflection of the financial performance as well as the qualitative aspects of the individual entities.



- Favorable agro-climatic conditions
- Continuous availability and ease of access to raw material
- Availability of low cost skilled and unskilled labor
- Simple to operate plants
- Technologically advanced machinery with low power consumption
- Long grain rice well established market
- New wetting and drying techniques introduced government
- Available capacity
- Government incentives and ease policies

- Increased freight charges
- Currency fluctuations
- Climate change and shifting rain cycles
- Water availability
- Interdependency on exports
- Strong bargaining power of buyers
- Intense competition from regional players in international market
- Recent PKR depreciation leading to declined margins
- Geographical export concentration
- Devaluation of currency



- Lack of research and development initiatives
- Low per acre yield
- No value addition/commodity product
- Branding of rice
- Outdated machinery i.e., harvesters
- Unavailability of hybrid seed varieties
- Highly saturated market
- Land degradation and seasonal issues
- Low yield crop
- Water management concerns

- Growing population and food consumption
- Increased research and development; improved hybrid seed
- High yield as result of improved hybrid seed and innovation
- Economic recovery
- Established product with growing demand
- Growing demand for better quality rice



## IMPACT

- Rising input prices and reduced disposable incomes of the farmers impacted negatively during the rice growing season.
- No major disruption in the Supply Chain and port operations except temporary delays during strict lockdown days.
- Panic buying and Stock hoarding in anticipation of over consumption led to a declined offtake in 1QFY21. However, the pattern is expected to recover going forward.
- Export Restrictions by countries where rice consumption is high led to an increased opportunity for Pakistani exporters.
- Rice Demand is still expected to rise at a global level amid Covid-19 pandemic, since it is still unclear how long the crisis will last.
- Short term market fundamentals remain robust. However, in the medium term, any shock on production, that could result lower than expected harvest could trigger a price crisis. Likewise, as second wave of Covid-19 pandemic is emerging, demand fueled by panic buying and hoarding could also trigger a price rise.

## RELIEF MEASURES

- Financial support to SMEs and the agriculture sector (PKR 100 billion) in the form of power bill deferment, bank lending, as well as subsidies and tax incentives
- The State Bank of Pakistan (SBP) has responded to the crisis by cutting the policy rate by a cumulative 625 basis points to 7.0 percent
- SBP provided subsidized loans under the Export Financing Scheme (EFS). Furthermore, an additional period of six months has been allowed to the exporters for meeting the required export performance against financing of EFS/IERS-II for the monitoring period of FY 2019-20
- The SBP increased the time for receiving export payment to 270 days from 180 days
- Farmers are planned to be provided with transplanter and rice harvesters at 50% discount while relief would also be given on the purchase of rice choppers

# RICE | OUTLOOK & FUTURE PROSPECTS

## OUTLOOK: STABLE

### GLOBAL:

- Global Rice Production is forecast at 499.6mln tons (milled basis) in 2020/21, one percent higher than the previous year. Rise is expected to come from India and the US, while a decline is expected in Thailand and Bangladesh. Pakistan's production is also expected to grow in 2020/21.
- Global Rice consumption is expected to record at 496.4mln tons (milled basis) in 2020/21, up one percent from a year earlier. With production exceeding use, global ending stocks are also expected to increase by 2% in 2020/21.
- Global Rice Trade is expected to grow by 3% from a year earlier projected at 44mln tons. This is, however, below the record level of 48mln tons achieved in 2017. Sharp reductions in Nigeria, Bangladesh and Sri Lankan imports since 2017 contribute to this factor. In 2021, major export increase is expected from India, while Pakistan export quantum is expected to remain flat. Prices are expected to remain intact in the export market due to increased domestic consumption, particularly in China. A second wave of Covid-19 may result in panic buying of stocks further strengthening the prices.

### LOCAL

- No temporary bans or restrictions imposed on rice exports during COVID-19. Target Set for Rice Production in 2020/21 is around ~7.9mln MTs. During FY20, area under cultivation increased by ~8% to almost 3mln Hectares.
- Pakistan has been able to surpass USD2bln export mark in FY20. Although FY21 opened up with a significant dip in Rice Exports (~20%), major decline was witnessed in the first two months – July and August, owed to inventory pile up with the buyers amid Covid-19 situation. The situation is expected to ease up as new crop harvest awaits. Pakistan is still set to reach USD2.5bln export mark in FY21.
- Increased production in India and uplifting of Indian rice ban in the EU and Iran can adversely impact Pakistan Basmati Rice Export. However, Pakistan's quality of rice exported and strategical marketing strategies must secure its share.



- USDA Rice Overview
- Thai Rice Exporters Association
- Trading Economics
- Statista
- World Bank
- Pakistan Economic Survey
- Pakistan Bureau of Statistics
- Trade Development Authority of Pakistan
- Rice Exporters Association of Pakistan (REAP)
- State Bank of Pakistan (SBP)
- Pakistan Agriculture Research Council
- PACRA Database

<b>Research Team</b>	<b>Saniya Tauseef</b> <i>Asst. Manager</i> <a href="mailto:saniya.tauseef@pacra.com">saniya.tauseef@pacra.com</a>	<b>Qurat-ul-Ain</b> <i>Associate Analyst</i> <a href="mailto:quratulain@pacra.com">quratulain@pacra.com</a>
<b>Contact Number: +92 42 35869504</b>		

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