



Crop Care Federation of India

India's Rice Trade

SPS Barriers from EU – with special reference to pesticide MRLs

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What is Pesticide MRL?



1

Pesticide Residues: Traces of pesticides in or on the agricultural commodities at the time of harvest.

2

Maximum Residue Limit (MRL) is the maximum acceptable level of a pesticide that is legally tolerated in food and agricultural products when they are traded. It is often measured and expressed in terms of parts per million (ppm or mg/kg).

3

MRL is not a toxicological safety standard, but **only a trading standard.**

4

MRLs widely vary among countries for a given pesticide/crop.

5

The **MRL** can be as low as **0.01 ppm**. This equals **1 gm per 100 tons** of rice or any other agri. commodity. *At this insignificant level, a pesticide would not be toxicologically, biologically or environmentally relevant.*

6

Agricultural commodities that comply with national use/MRLs may be non-compliant while entering the EU when **0.01 ppm** is applied.





Understanding the legal force behind the MRLs



The **Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement)** entered into force with the establishment of the World Trade Organization (WTO) on 1st Jan 1995. Its provisions are legally binding on all countries that are members of the WTO.



The SPS agreement covers both **sanitary** (human and animal health) and **phytosanitary** (plant health) measures. The **SPS measures** are applicable to food products of plant and animal origin whether domestically produced or imported.



The SPS Agreement allows WTO member countries to set their own SPS standards.

At the same time, it also says that the SPS standards must be based on science.

Whose science? This is a big question.



WTO members can also apply the “precautionary principle”, temporarily (Article 5.7) to deal with scientific uncertainty.



All these would help understanding the varying levels of MRLs among the countries for a given pesticide and agri. commodity/food.

Non-harmonized MRLs and regulatory heterogeneity are a global issue.

An unpleasant truth - The MRLs can at times be politically/commercially driven to deliberately impede the trade.



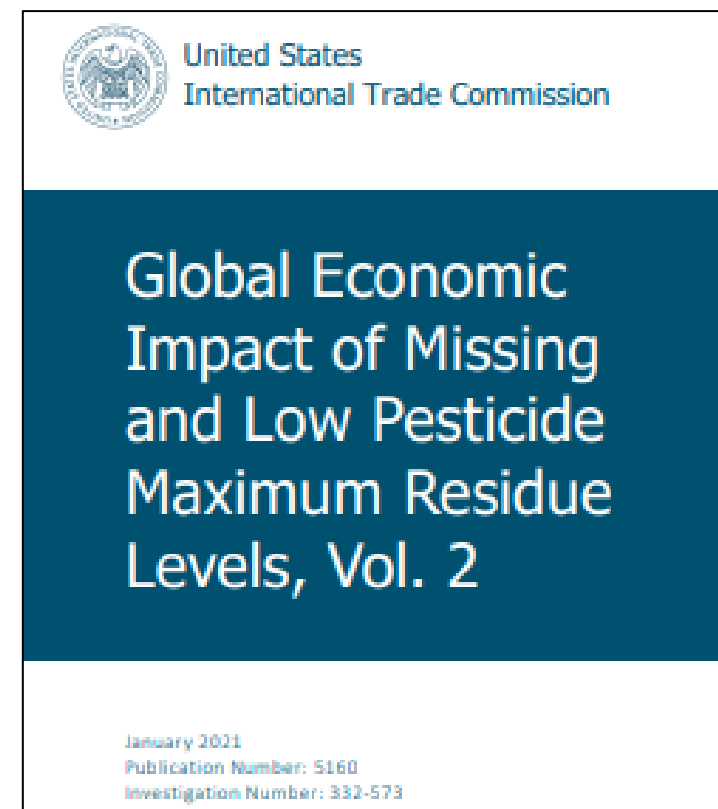


Divergence in MRLs and consequent compliance difficulties



“ Greater fragmentation and divergence in MRL policies around the world coupled with evolving technological capacity that increases testing precision, often translates into elevated costs and market impacts throughout the agricultural supply chain. ”

- United States International Trade Commission in Global Economic Impact of Missing and Low pesticide Maximum Residue Levels, 2021



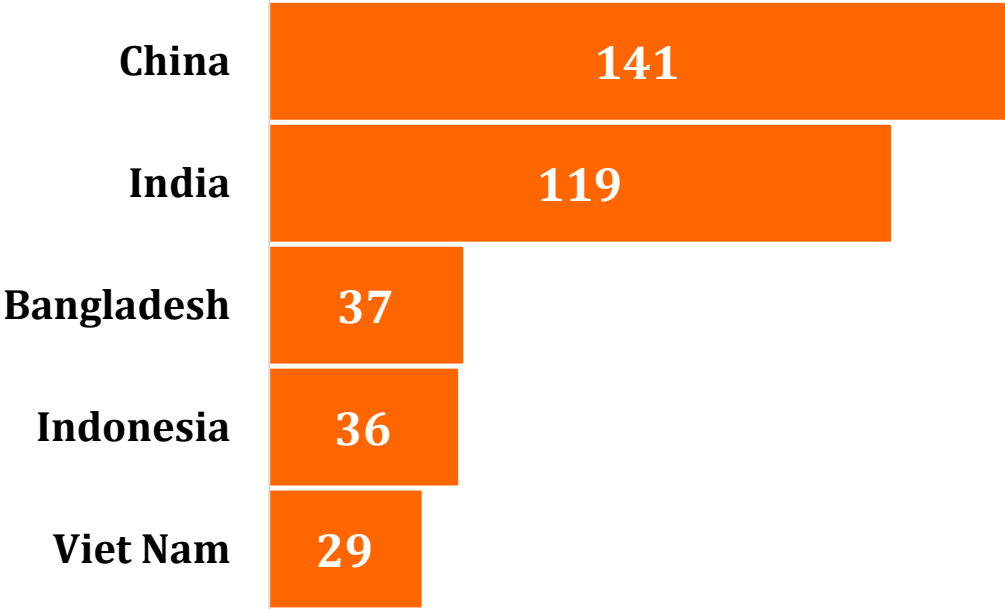
The United States International Trade Commission has published two volumes (>600 pages) on the negative impacts of low MRLs on trade.



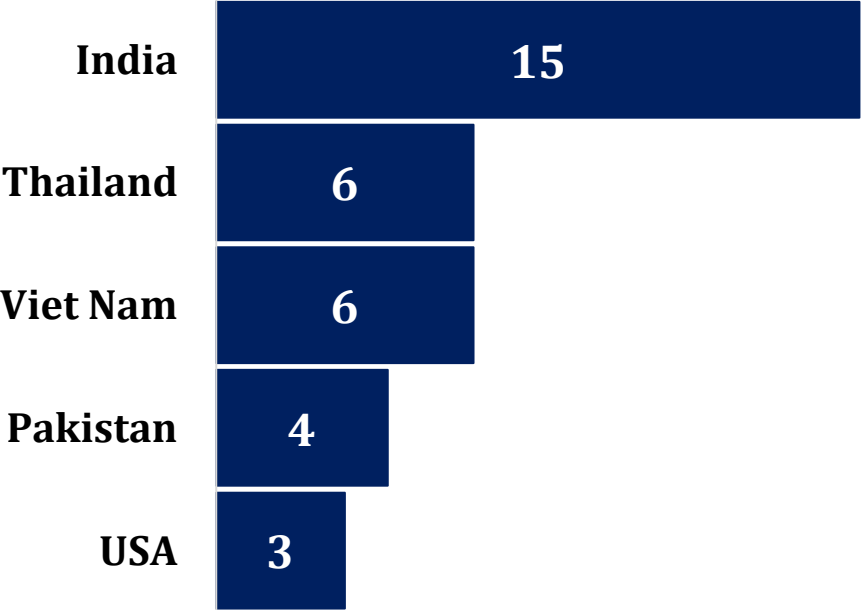


Top 5 Producers & Exporters of Rice (2020)

Top 5 Producers



Top 5 Exporters



Source: FAOSTAT and WTO-ITC (Accessed on 6th August 2022)

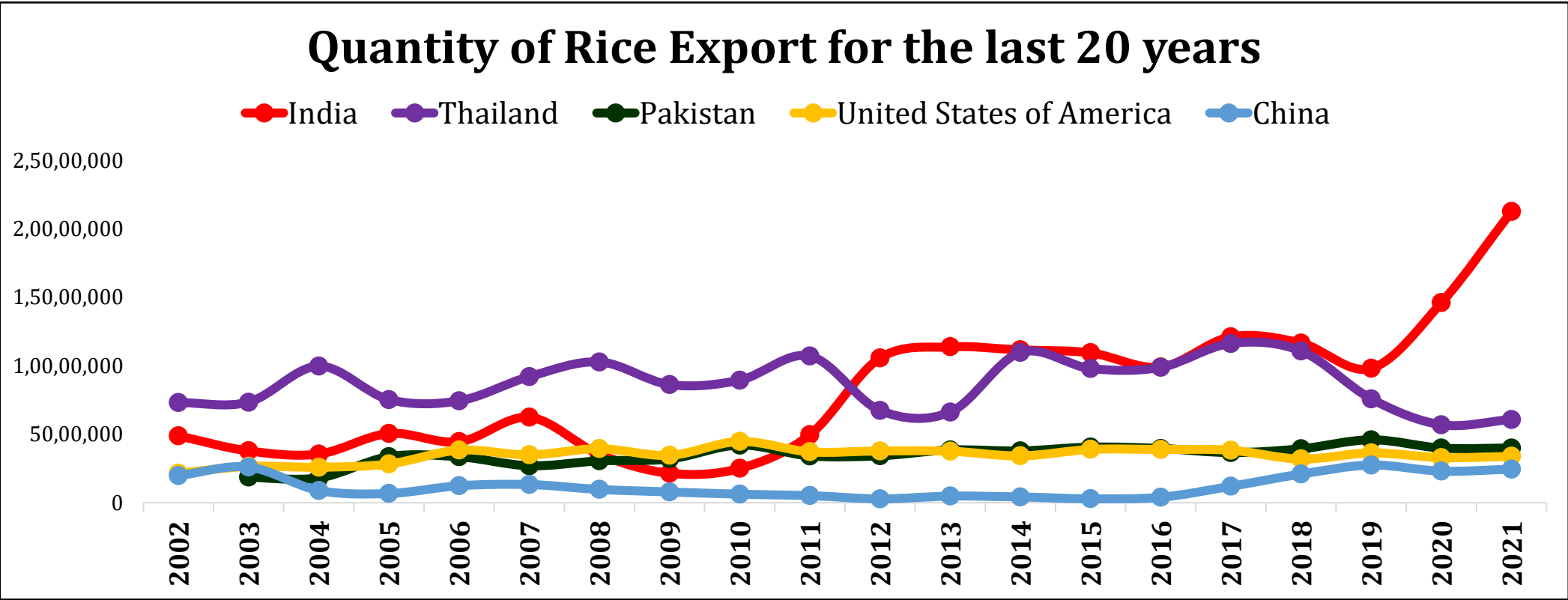
Unit – mn tons

- ❑ Total world Production: 505 mn tons (2020).
- ❑ Of this ~10% gets exported.





Export trend of top 5 exporters of Rice



Source: WTO- ITC (Accessed on 3rd August 2022)

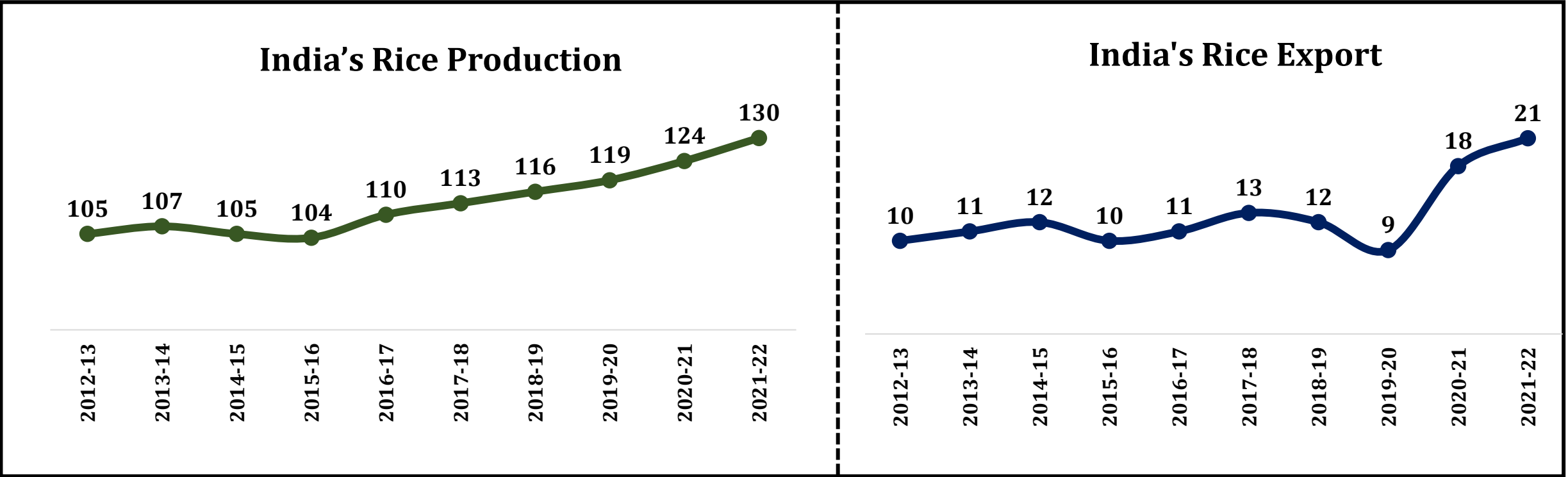
Unit: Tons

- ❑ India is now the global leader in rice export with a share of 33% (2021).
- ❑ India is followed by Thailand, Pakistan, USA, and China.





India's Rice production and export. What do the data show?



Source: Ministry of Agriculture and APEDA (Accessed on 6th August 2022)

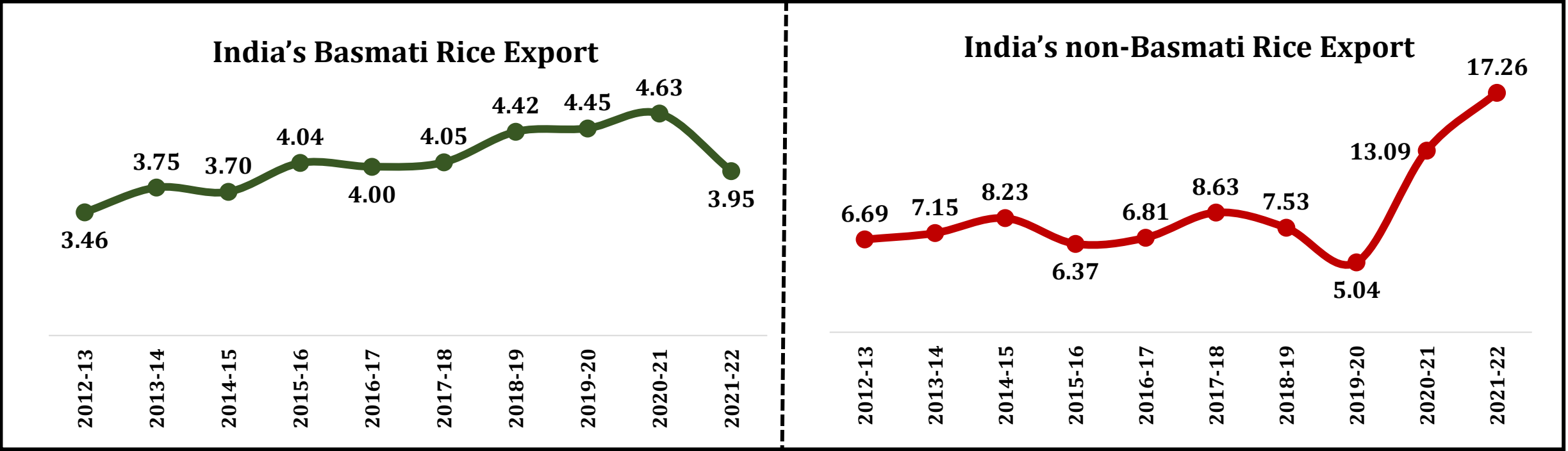
Unit: mn tons

- ❑ India's rice production has grown 24% since 2012-13, higher than the global growth (5%).
- ❑ During this period India's export increased by 110%.
- ❑ Share of export in India's rice production has increased from 10% in 2012-13 to 16% now.





India's Rice export. Basmati Vs non-Basmati Rice



Source: APEDA (Accessed on 6th August 2022)

Unit: Mn Tons

- ❑ Basmati rice registered a linear growth until FY 2020-21. The dip in the last FY came largely from Saudi Arab.
- ❑ The export of non-Basmati rice has overtaken Basmati rice both in volume and value.
- ❑ For the FY 2021-22, the value was Rs 45,650 Cr (\$6.12 bn) for non-Basmati and Rs 26,415 Cr (\$3.54 bn) for Basmati.





Top 10 Buyers of India's Basmati and non-Basmati Rice (2021-22)

Rank	Country	Basmati Rice Export Quantity (tons)	Share	Rank	Country	Non Basmati Rice Export Quantity (tons)	Share
1	Iran	998,046	25%	1	China	1,632,770	9%
2	Saudi Arab	674,850	17%	2	Bangladesh	1,623,567	9%
3	Iraq	486,299	12%	3	Benin	1,526,414	9%
4	UAE	256,962	7%	4	Nepal	1,385,652	8%
5	Yemen	205,950	5%	5	Senegal	1,090,952	6%
6	USA	161,005	4%	6	Cote D Ivoire	932,162	5%
7	Kuwait	147,484	4%	7	Togo	843,334	5%
8	UK	131,322	3%	8	Vietnam	707,825	4%
9	Oman	77,468	2%	9	Guinea	673,322	4%
10	Qatar	71,740	2%	10	Madagascar	571,594	3%
India's Total Basmati Rice Export		3,947,973		India's Total non- Basmati Rice Export		17,260,688	

Source: APEDA (Accessed on 2nd August 2022)

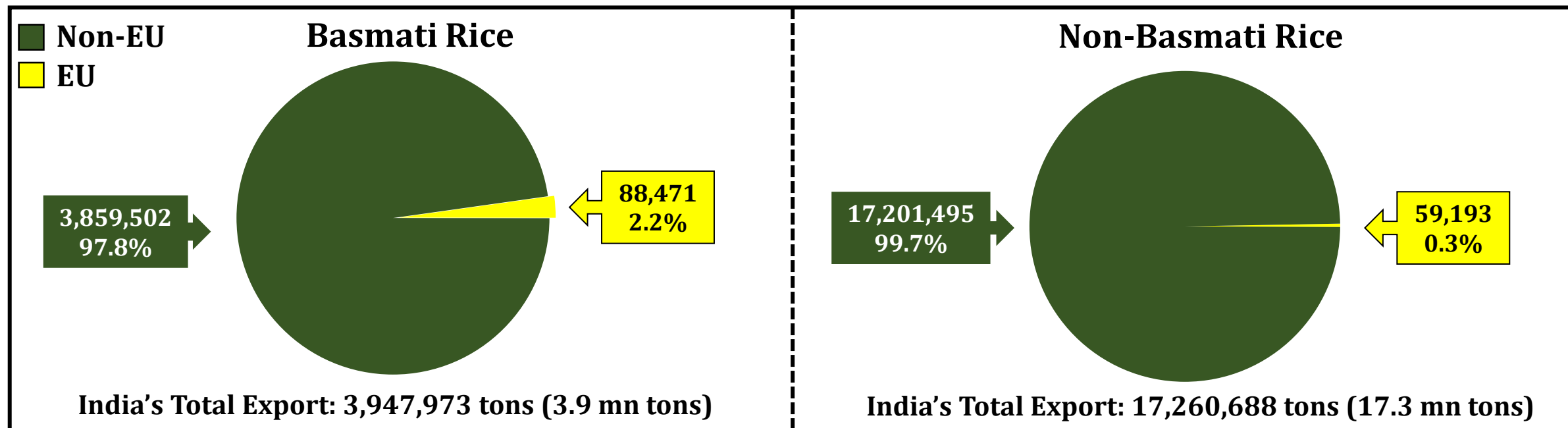
The share of EU in India's Basmati and non-Basmati rice export is only 2% and 0.3% resp.

... Contd.





EU's share in India's Rice export



Source: APEDA (Accessed on 5th August 2022)

Year: 2021-22

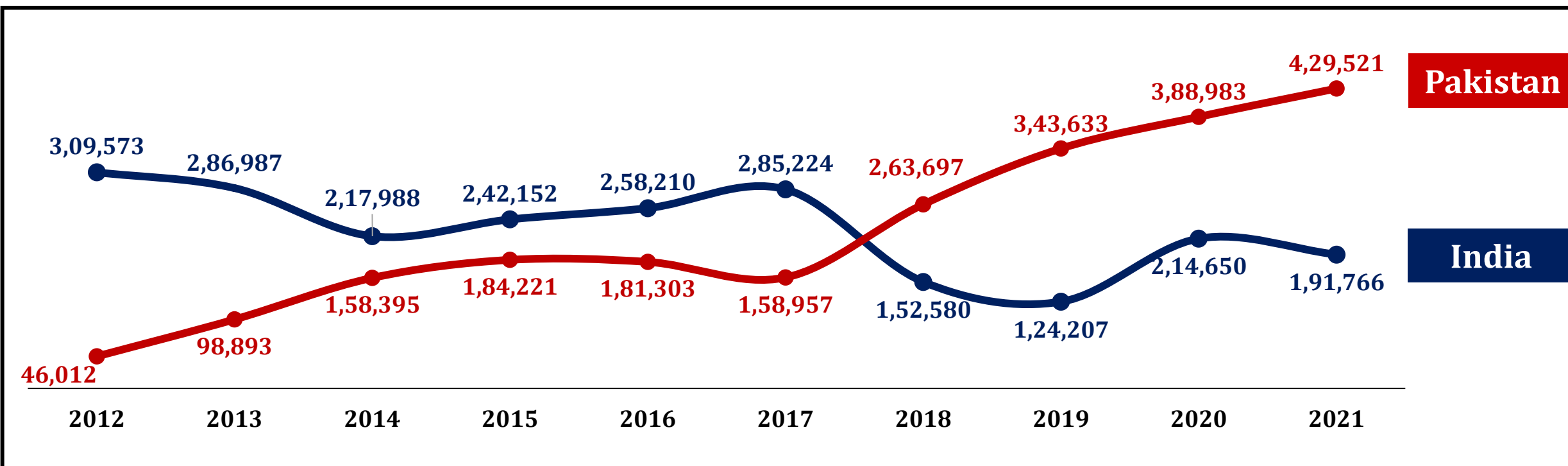
Unit: Tons

- ❑ EU is a minor market for rice in general and for Indian rice in particular.
- ❑ The per capita rice consumption in the EU is only 6 Kgs per year as against the world average of 54 Kgs. It is 73 kgs in India.
- ❑ Is there any scientific rationale for EU MRLs for rice to be less than that of CODEX/India?





EU-27 Rice import. India vs Pakistan



Source: WTO-ITC (Accessed on 2nd August 2022)

Unit: Tons

- ❑ While India's rice export to EU declined 38%, Pakistan's export increased a whopping 833%.
- ❑ For India, the decline began ten years ago i.e., 2012 onwards. This is contradictory to the popular perception.
- ❑ Pakistan manages to increase its rice exports braving the SPS notifications.
- ❑ It now sells 125% more than India in the EU.





EU-27 Rice Import (Basmati + Non-Basmati)

Year	EU Total Import*	EU Import from India	EU Import from Pakistan	EU Import from India and Pakistan	India Share in EU Import	Pakistan Share in EU Import	India and Pakistan Share in EU Import
2012	9,98,202	3,09,573	46,012	3,55,585	31%	5%	36%
2013	10,72,698	2,86,987	98,893	3,85,880	27%	9%	36%
2014	11,97,376	2,17,988	1,58,395	3,76,383	18%	13%	31%
2015	15,25,476	2,42,152	1,84,221	4,26,373	16%	12%	28%
2016	15,43,581	2,58,210	1,81,303	4,39,513	17%	12%	28%
2017	15,48,775	2,85,224	1,58,957	4,44,181	18%	10%	29%
2018	15,76,181	1,52,580	2,63,697	4,16,277	10%	17%	26%
2019	17,21,412	1,24,207	3,43,633	4,67,840	7%	20%	27%
2020	19,18,491	2,14,650	3,88,983	6,03,633	11%	20%	31%
2021	17,41,380	1,91,766	4,29,521	6,21,287	11%	25%	36%

Source: WTO-ITC (Accessed on 5th August 2022)

* EU's internal trade is excluded

Unit: Tons

- ❑ India's share in EU rice import has decreased from 31% in 2012 to 11% in 2021 whereas in the same period Pakistan's share has increased from 5% to 25% .
- ❑ Other countries that export to EU include Thailand, Cambodia, and Vietnam etc.





Rice Export to EU

Price Comparison. India vs Pakistan



Period (5 years Average)	India	Pakistan
2012-17	851	837
2017-21	894	857

Source: WTO-ITC (Accessed on 8th August 2022)

Unit: \$ per ton

Are we losing the EU market to price competition?



Pakistan Rice. Latest Development.



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Wednesday, August 10, 2022

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Chinese super seeds boost Pakistan's rice exports

Last Updated: 2022-07-25 14:26 | Gwadar Pro

By Mariam Raheem

LAHORE, July 25 (Gwadar Pro)- Pakistan's rice exports witnessed a 23% growth in fiscal year 2021-2022 and reached US\$2.511 billion compared with the US\$2.041 billion in fiscal year 2020-2021.

Link:

[http://en.ce.cn/Insight/202207/25/t20220725_37902522.shtml#:~:text=Chinese%20super%20seeds%20boost%20Pakistan's%20rice%20exports%2D%2DChina%20Economic%20Net&text=LAHORE%2C%20July%2025%20\(Gwadar%20Pro,in%20fiscal%20year%202020%2D2021.](http://en.ce.cn/Insight/202207/25/t20220725_37902522.shtml#:~:text=Chinese%20super%20seeds%20boost%20Pakistan's%20rice%20exports%2D%2DChina%20Economic%20Net&text=LAHORE%2C%20July%2025%20(Gwadar%20Pro,in%20fiscal%20year%202020%2D2021.)

In corporation with China, Pakistan is working on Basmati hybrid varieties for better yields!

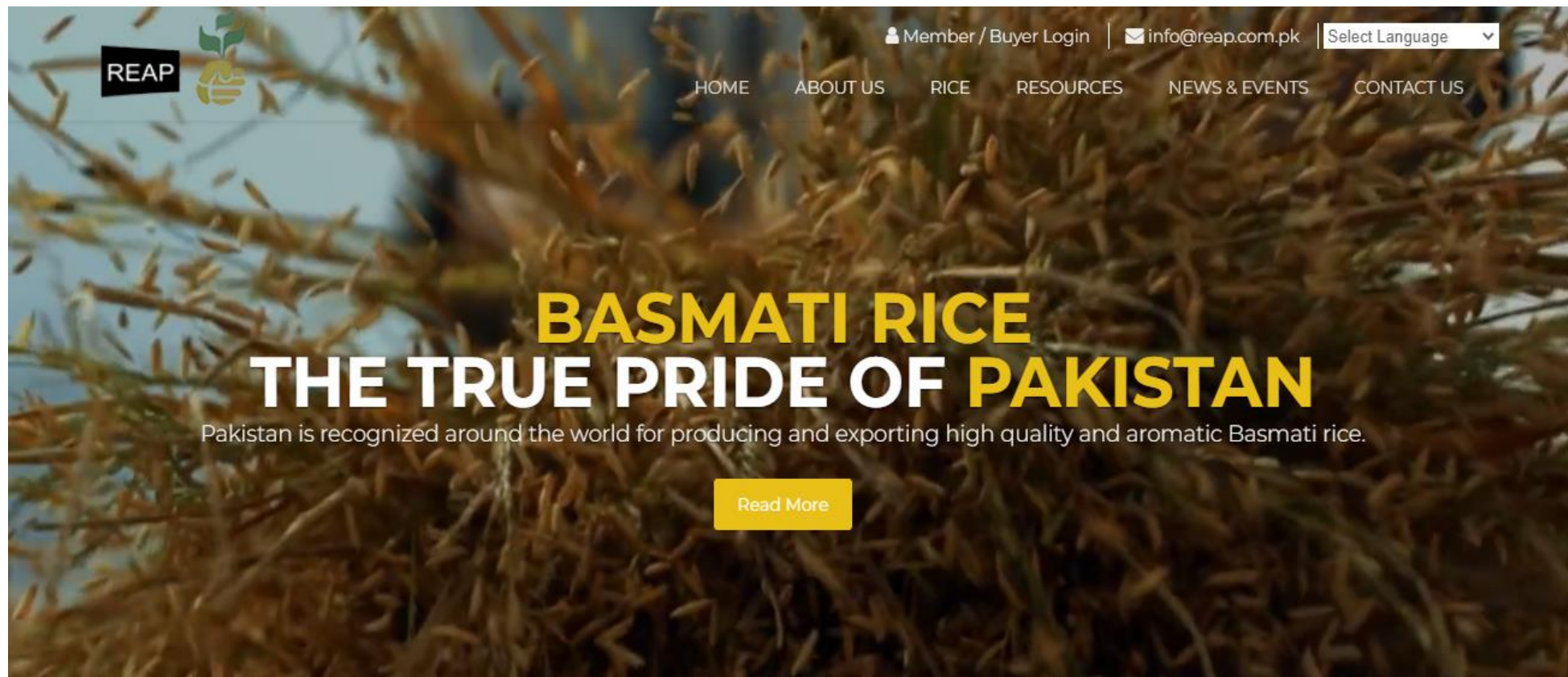




This is how Pakistan promotes Basmati Rice!



Web Page of Rice Exporters Associations of Pakistan



Pertinently, SPS notifications/rejections have not dampened Pakistan's rice export to EU.





What is Basmati Rice?



Basmati, Bas – Aroma and mati - Queen

“Basmati rice is grown in the Indo-Gangetic Plains and has the following characteristics: exceptional length of grain, which increases substantially after cooking, the cooked grain has high integrity and high discreteness and distinctive aroma, taste and mouth feel; it is a traditional variety or is an evolved variety. A traditional variety shall mean land races or varieties of rice of uniform shape, size, and color traditionally recognized as Basmati and evolved Basmati shall mean a variety whose one of two parents is a traditional variety and which has been recognized as a Basmati variety under any law for the time being in force.”

Link: <http://www.eicindia.gov.in/eicold/eic/qc&i/enotfn-rice-68.htm>

This legal definition is adopted by Govt. of Pakistan too.

Punjab and Haryana in India produce more than **90%** of the Basmati rice. In Pakistan about **95%** of Basmati rice is produced in Punjab province.





No. of SPS Notifications from EU-RASFF (1981-2020)

All Countries . All Products . All Causes.



Hazard Category	Number of Notifications	Percentage Share
Pathogenic micro-organisms	14,177	18.6%
Mycotoxins	13,332	17.5%
Pesticide residues	8,013	10.5%
Composition	4,780	6.3%
Migration	4,042	5.3%
Others	31,940	41.80%

- ❑ Pathogenic micro-organisms and mycotoxins remain the top two largest causes for rejections (totally 36%).
- ❑ Pesticides residues ranks third (10%).

RASFF: Rapid Alert System for Food and Feed. It is a notification system followed by the European Commission for food safety issues within the EU.

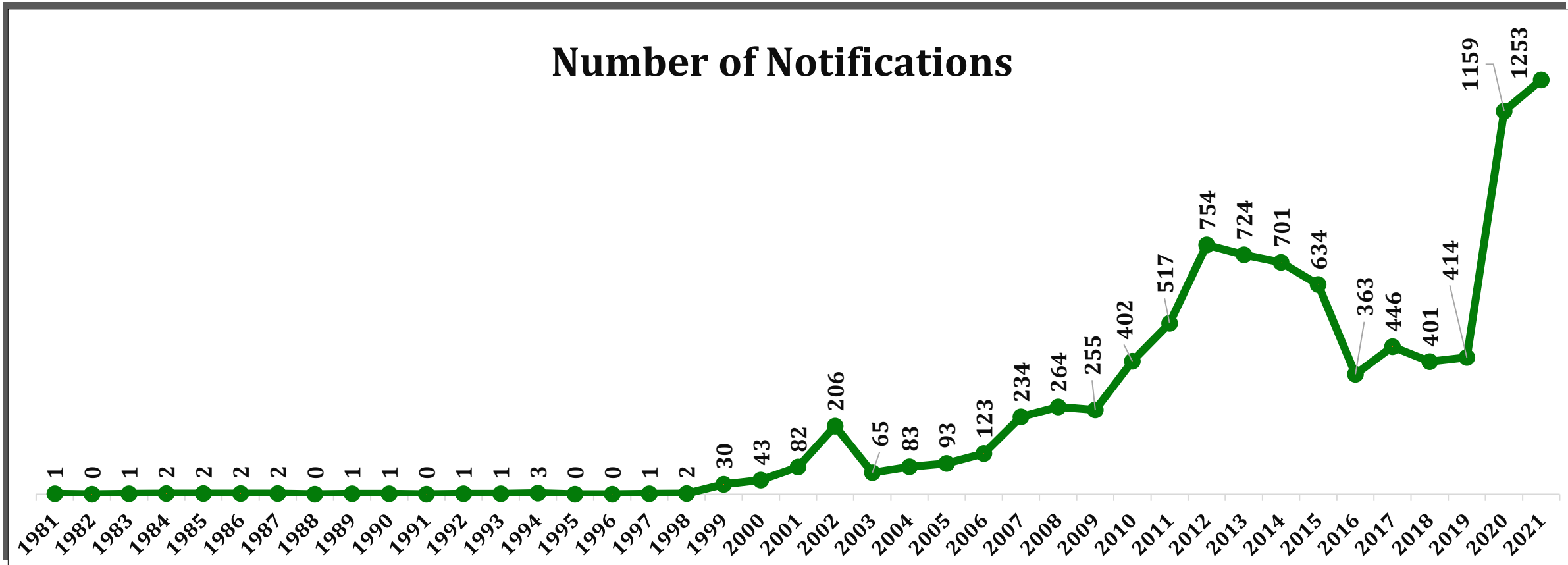
Source : Notification on Pesticides Residues in the Rapid Alert System for Food and Feed (RASFF) – 2022, by Marcin Piglowski.

Link:<file:///C:/Users/20000294/Desktop/Notificaiton%20on%20Pesticide%20Residues%20in%20the%20Rapid%20Alert%20System%20for%20Food%20and%20Feed.pdf>





Number of Notifications on Pesticides MRL violations from the EU (1981-2021) All Countries. All Products.



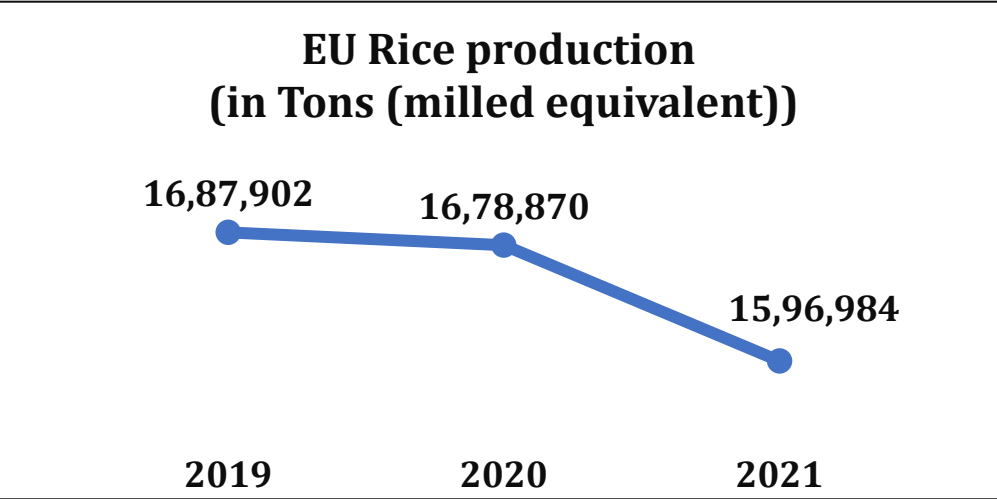
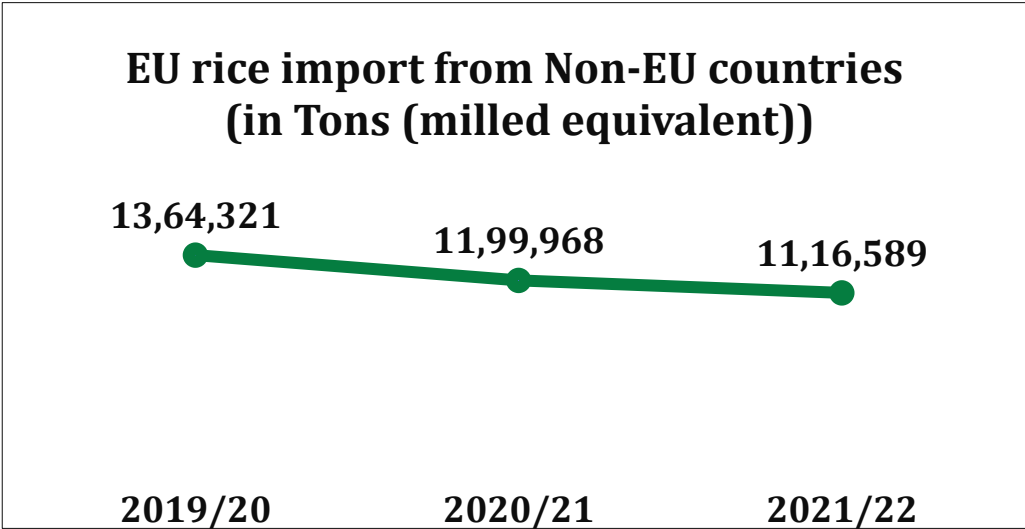
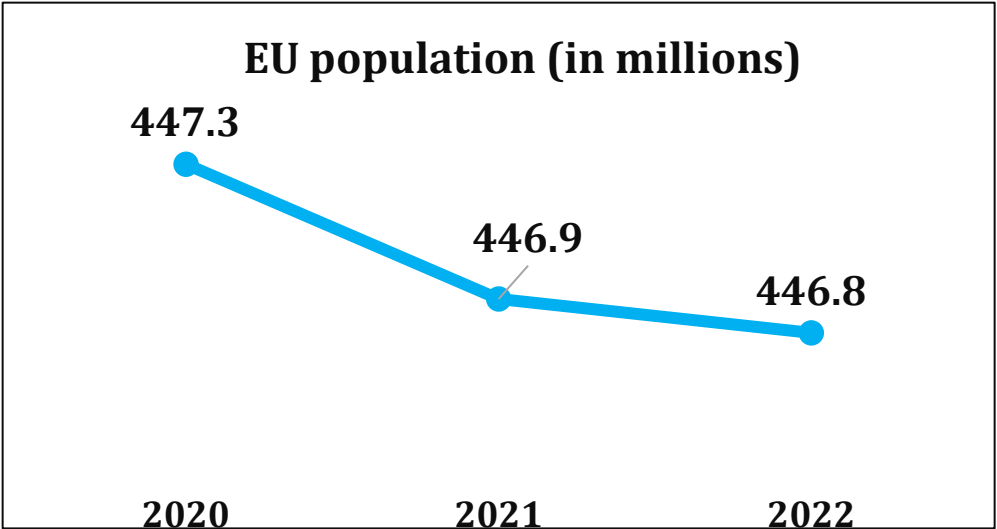
Source : Notification on Pesticides Residues in the Rapid Alert System for Food and Feed (RASFF) – 2022 from 1981 to 2020, by Marcin Piglowski; data for 2021 extracted from RASFF on 30 July 2022.
Link: <file:///C:/Users/20000294/Desktop/Notificaiton%20on%20Pesticide%20Residues%20in%20the%20Rapid%20Alert%20System%20for%20Food%20and%20Feed.pdf>

Note the spurt in notifications involving pesticide MRL violations in recent years.
MRLs are “science coated” trade barriers!





EU's shrinking Rice market



- ❑ EU's rice import has declined by **18% in last three years** higher than the population decline.
- ❑ EU's domestic rice production has also fallen by 1 lakh tons (5%) in last three years.
- ❑ **Is the consumption shifting away from rice in EU?**

Source: European Commission





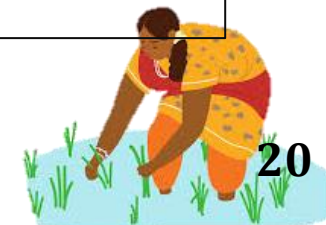
Pre-shipment test for MRL compliance



“Export of rice (Basmati and non-Basmati) to European Union (EU) countries will require certificate of inspection from Export Inspection Council/Export Inspection Agency with immediate effect”

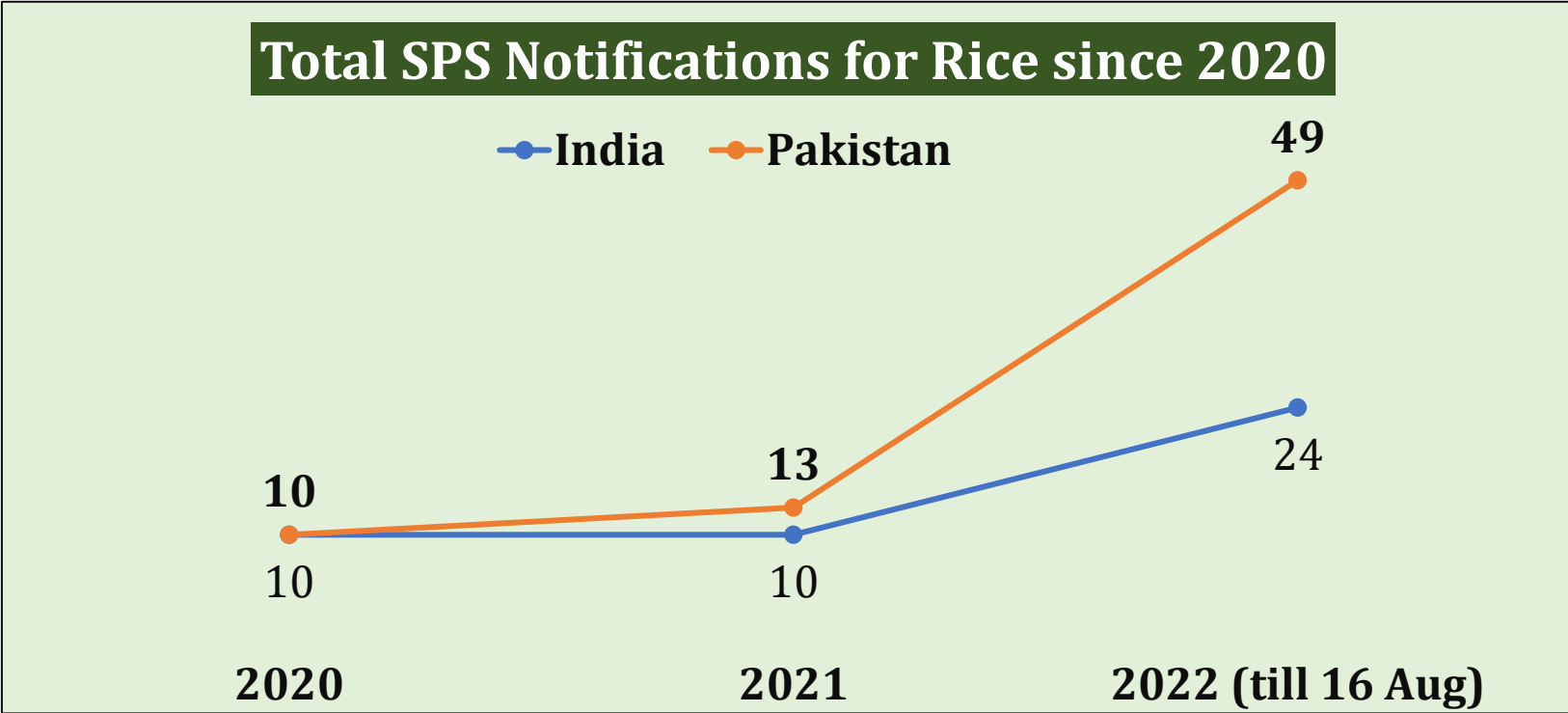
- Directorate General of Foreign Trade (DGFT) in 2019

- ☐ Since September 2008, all MRLs have been harmonized on an EU wide basis under Regulation (EC) 396/2005.
- ☐ A default MRL of **0.01 mg/kg (0.01 ppm)** applies to all pesticides that are not registered for use in EU.
- ☐ **0.01 ppm** equals **1 gram per 100 tons** of rice.
- ☐ Theoretically, countries outside the EU can seek to amend the EU MRLs (import tolerance) based on uses regulated in their countries, but in practice this does not materialize.
- ☐ **Do pre-shipment tests really help in view of 0.01 tolerance level?**





SPS notifications from EU involving Rice. India vs Pakistan



Source: RASFF (Accessed on 17th August 2022)

- ❑ In the current year till 16th August 2022, Pakistan received 100% more SPS notifications than India. It was 30% higher in the year 2021.
- ❑ Increase in SPS notifications has not adversely impacted Pakistan's rice export to EU.
- ❑ Why should the SPS notifications affect India's export alone?





Pesticide residues reported in SPS notifications from EU involving rice. India vs Pakistan



Pesticide residues reported in rice in 2020, 2021 & 2022 (till 16th August)

Pakistan

- 1. Carbendazim
- 2. Chlorpyrifos
- 3. Imidacloprid
- 4. Thiamethoxam
- 5. Tricyclazole

India

- 1. Bromide
- 2. Buprofezin
- 3. Chlorpyrifos
- 4. Hexaconazole
- 5. Propiconazole
- 6. Thiamethoxam
- 7. Tricyclazole

Source: RASFF (Accessed on 17th August 2022)





Even 0.01 ppm is leading to consignment rejections in the EU !!



On 10 Feb 2022, EU issued a notification rejecting a consignment of Basmati rice imported from Pakistan giving the following reasons:

Notification Ref.No.	Pesticides Found	Analytical Result	EU's MRL Standard	Reason
2022.1891	Carbendazim	0.01 mg/kg (0.01ppm)	0.01 mg/kg (0.01ppm)	Carbendazim use is not authorised in EU

Source: RASFF (Accessed on 17th August 2022)

- ❑ This means, residues even at 0.01 ppm could lead to rejection of consignments in the EU if the pesticide concerned is not registered over there.
- ❑ This is an indirect way of forcing other countries to use only those pesticides registered in the EU.





This is how China levels the playing field under WTO-SPS Agreement !



Evian Water Rejected By China For Containing "Excessive Amounts Of Bacteria"

"118 tons of Evian mineral water has been seized and impounded by Chinese Health Inspectors because it contained excessive amounts of bacteria."

Link: <https://consumerist.com/2007/05/30/evian-water-rejected-by-china-for-containing-excessive-amounts-of-bacteria/>

- ❑ Evian is a globally popular mineral water sourced from French Alps.
- ❑ This is an excellent example that shows how an assertive developing country can hit back; legitimately using the provisions of WTO-SPS Agreement.
- ❑ Many developing countries hesitate to take the developed countries head-on under the SPS Agreement. This must change.
- ❑ On an average 740 food shipments per year from EU were returned/rejected by China between 2013-19 citing SPS violations! The EU receives the maximum rejections from China! (source : USDA)
- ❑ **Quid Pro Quo** levels the playing field in the era of WTO. Our FSSAI must begin to assert.





USA's criticism against EU's Sanitary and Phytosanitary(SPS) barriers



“The United States remain concerned about a number of measures the EU maintains ostensibly for the purpose of food safety. Specifically, the US is concerned that these measures unnecessarily restrict trade without furthering their safety objectives because they are not based on scientific principles, are maintained without sufficient scientific evidence, or are applied beyond the extent necessary.”

Ref : 2021 Foreign Trade Barriers, p.177 published by USTR

- ❑ Other governments including India must be equally assertive in voicing their opposition to the EU's unscientific SPS barriers.





Understanding EU MRLs for Pesticides.



- ✿ In the EU, MRLs are set for more than 1300 pesticides covering 378 food products.
- ✿ Of this, a default MRL of 0.01 ppm (0.01 mg/kg) applies to as many as 690 pesticides.
- ✿ In other words, for over 50% of the pesticides the EU applies 0.01 mg/kg as default MRL.
- ✿ 0.01 mg/kg = 1gm for every 100 tons.
- ✿ At this trace level (1 gm in 100 tons), a pesticide residue would not be biologically, toxicologically and environmentally relevant.
- ✿ When tested at this level (0.01 ppm), some pesticides would certainly show up in some consignments.
- ✿ EU has set 507 MRLs for paddy. Out of this 304 (60%) are below 0.01 ppm.



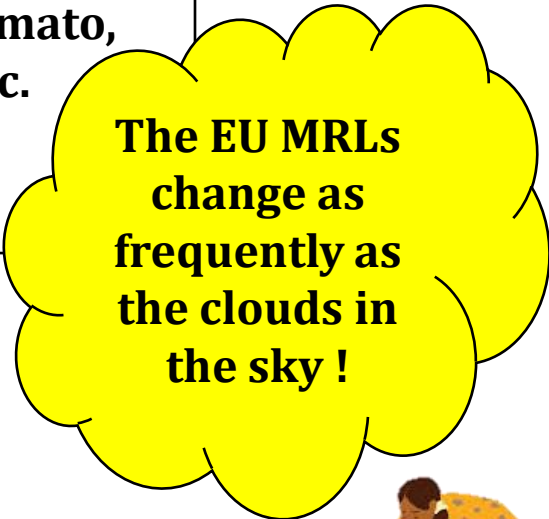


EU pesticides MRL constantly undergoes changes.

Revisions notified in the last 5 weeks (1st July 2022 till 1st August 2022)



Date of notification	No of pesticides involved	Major crops covered
4 th July	4	Rice, Wheat, Sesame seeds, Peas, Pulses, Tea, Coffee, Potato, Banana, Mango, Citrus, Melons, Tomato, Cauliflower etc.
6 th July	2	
21 st July	1	
25 th July	10	
29 th July	16	
1 st August	4	
Total	37	



**The EU MRLs
change as
frequently as
the clouds in
the sky !**

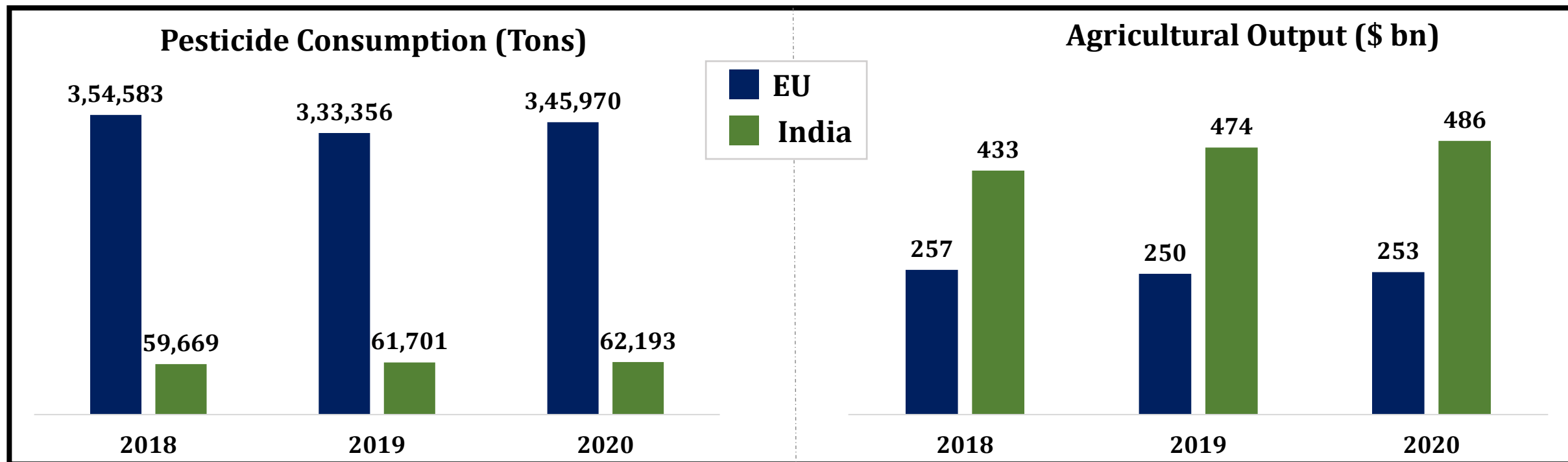
Source: European Commission as reported in global MRL news by BCGlobal

- ❑ 37 changes in jus 30 days!
- ❑ It is a herculean task to constantly monitor the ever changing MRLs for possible compliance.





Pesticides consumption and Agricultural production India and EU



Source: Eurostat, Directorate of Plant Protection, Quarantine & Storage and World Bank (Accessed on 8th August 2022)

- ☐ The EU uses more pesticides both in variety and volume.
- ☐ The EU countries use 5 times more pesticides than India. Yet their agriculture output is just half of India's.
- ☐ Import of food products (including chocolates and wines) from the EU should be carrying residues of pesticides not registered/allowed in India. Do we check them for unacceptable pesticide residues and send notifications?





Key Takeaways and Conclusion

▶ EU(27) is not a major market for rice. Their per capita rice consumption is among the lowest.

▶ Rice consumption in the EU has been steadily falling. 98% of our business comes from non-EU countries.

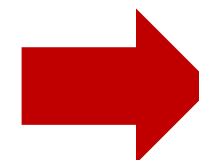
▶ Pakistan's rice export is increasing despite high SPS notifications.

◀ Our FSSAI must create a level playing field. FSSAI doesn't subject food imports to any MRL tests. This must change. *Quid pro quo* works in international trade.

◀ The EU MRL compliance cost is high with no guarantee of sustaining the export.

◀ The default MRL of 0.01 ppm for most pesticides is a significant Non Tariff Barrier (NTB) to access EU market

▶ Banning rice pesticides in India to meet the EU MRLs would amount to trimming the feet to fit the shoes! ***Government should not bow down to the pressure from the EU and EU funded lobbyists.***





Tailpiece



Basmati rice exports increase by 26% in Q1 to \$1.15 bn: Commerce Ministry

Press Trust of India | New Delhi
Last Updated at August 6, 2022 19:33 IST

Source: Business Standard

Link: https://www.business-standard.com/article/economy-policy/basmati-rice-exports-increase-by-26-in-q1-to-1-15-bn-commerce-ministry-122080600895_1.html

- ❑ Basmati rice export from India in the Q1 (Apr – June) of 2022-23 has **increased both in volume and value**. The surge is led by **Saudi Arab, Iran, USA, Jordan, Kuwait and UK**.
- ❑ The panic created is unwarranted and motivated. **Is it aimed at tarnishing Indian industry?**





THANK YOU

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Crop Care Federation of India