



Overview of the Rice Industry

Agric Policy toolkit training

Volta Region, Ghana



Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

Presentation Outline

- Rice, Food Security and Sustainability
- Global Rice Production, Processing, and Quality
- Overview of the Global Rice Market
- Government Policies in Rice Markets



Rice, Food Security and Sustainability

Rice, Food Security and Sustainability

➤ Food security

- **144,000,000** small holder rice farmers
- **Daily staple food for 3,500,000,000** people

➤ Climate Change

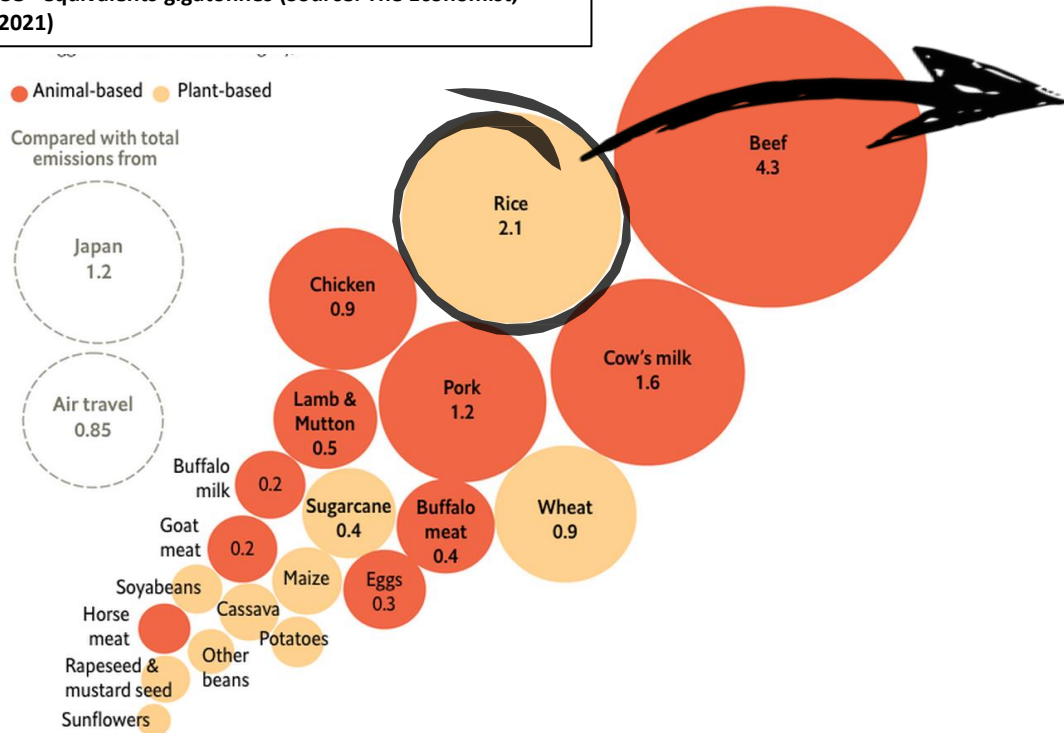
- **5-10%** of global greenhouse gas emissions
- **Rice farmers are vulnerable to Climate Change**

➤ Resource Use

- **Rice uses 30%** of the world's freshwater
- **13%** of global fertilizer use

Rice is both a perpetrator and a victim of climate change, emitting high amounts of Green House Gases (GHG). Unsustainable rice cultivation triggers climate impacts, threatening global rice supply and farmer livelihoods

CO²-equivalents gigatonnes (Source: The Economist, 2021)



Over 3.5 billion people rely on rice for their diet

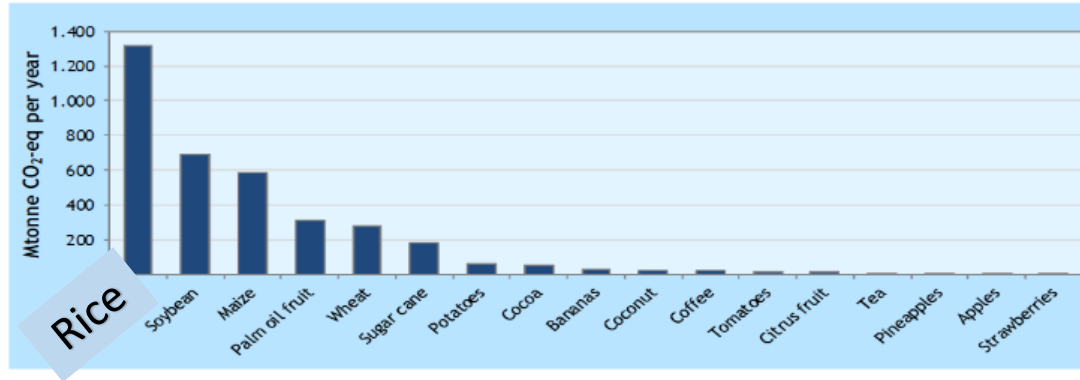
Rice provides livelihoods for nearly 1 billion people

Rice is the leading driver for habitat loss in wetlands and forest

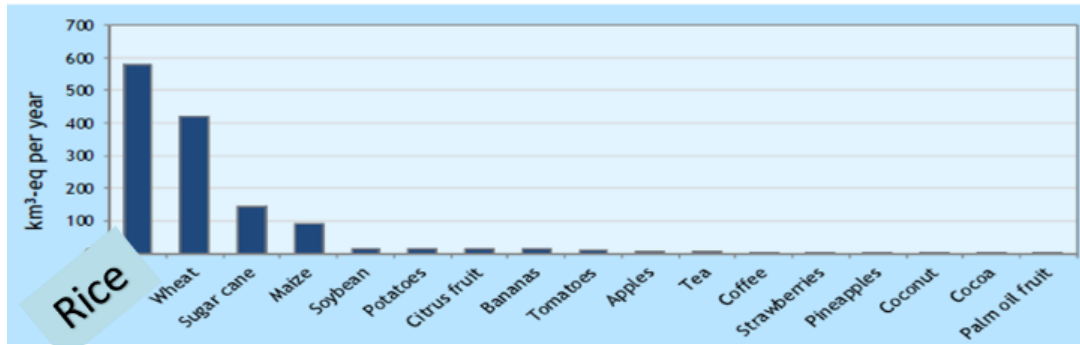
Rice supply expected to be reduced by 15% by 2050

Responsible for 12% of methane emissions

Rice tops the annual global GHG footprint per commodity,



... as well as the water scarcity footprint

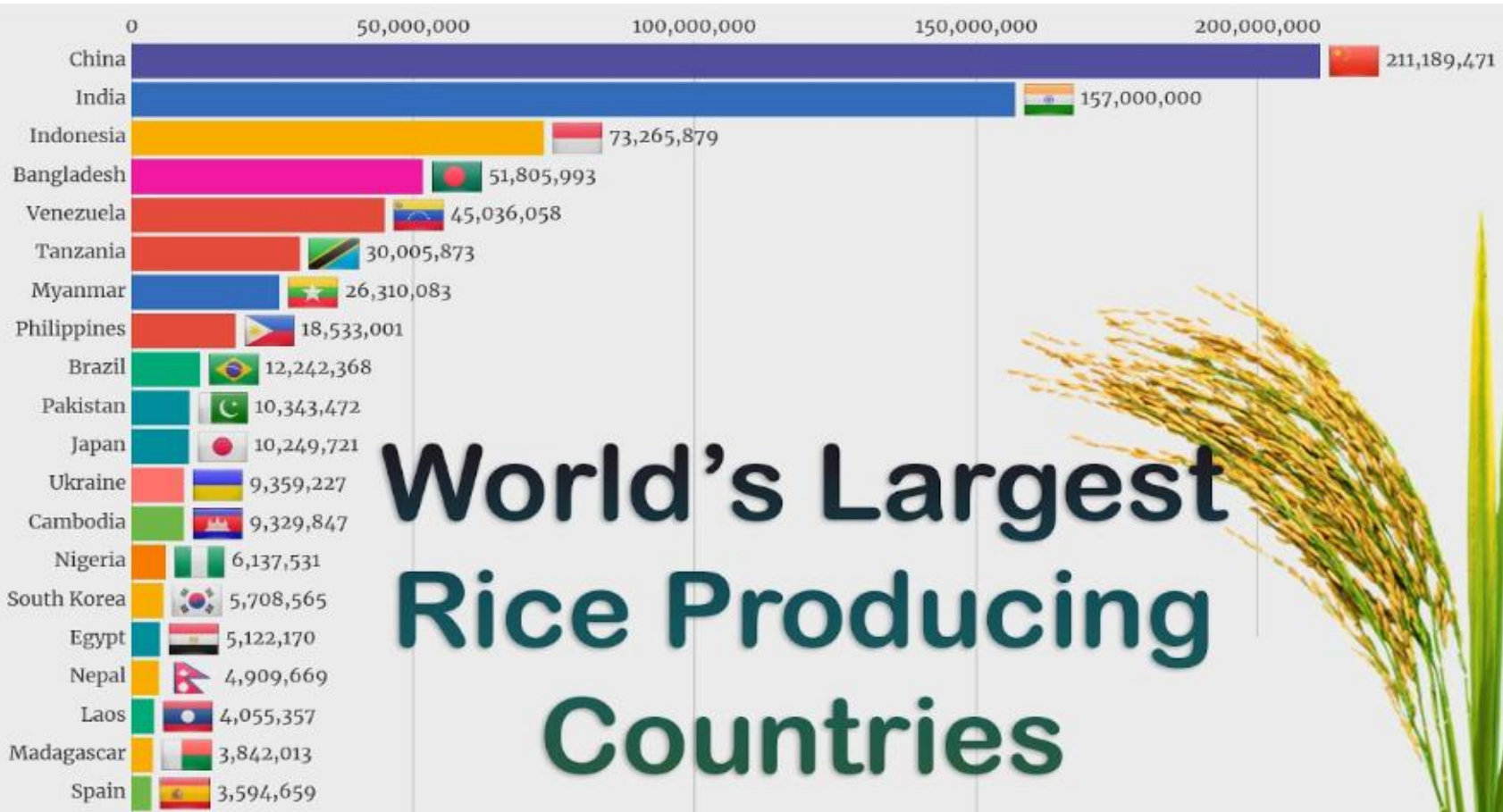


Source: Oxfam, 2016

**Wealthy and healthy farmers
who can grow more rice
with less water,
less greenhouse gas emission,
optimized fertilizer
and minimal pesticides.**



Global Rice Production, Processing, and Quality



World's Largest Rice Producing Countries



Shares of Global Production, Exports, and Imports Marketing Years 2018/19 –2023/24

Country	Share of global production (%)	Share of global exports (%)	Share of global imports (%)
China	28.9	4.2	7.3
India	24.9	32.2	0.0
Bangladesh	7.0	0.0	1.5
Indonesia	6.7	0.0	3.4
Vietnam	5.3	14.0	4.4
Thailand	3.8	14.8	0.3
Pakistan	1.6	8.8	0.0
Brazil	1.4	2.1	1.8
United States	1.3	5.4	2.4
Uruguay	0.2	1.7	0.0
Paraguay	0.2	1.5	0.0
All others	18.7	15.3	79.0
Total	100.0	100.0	100.0

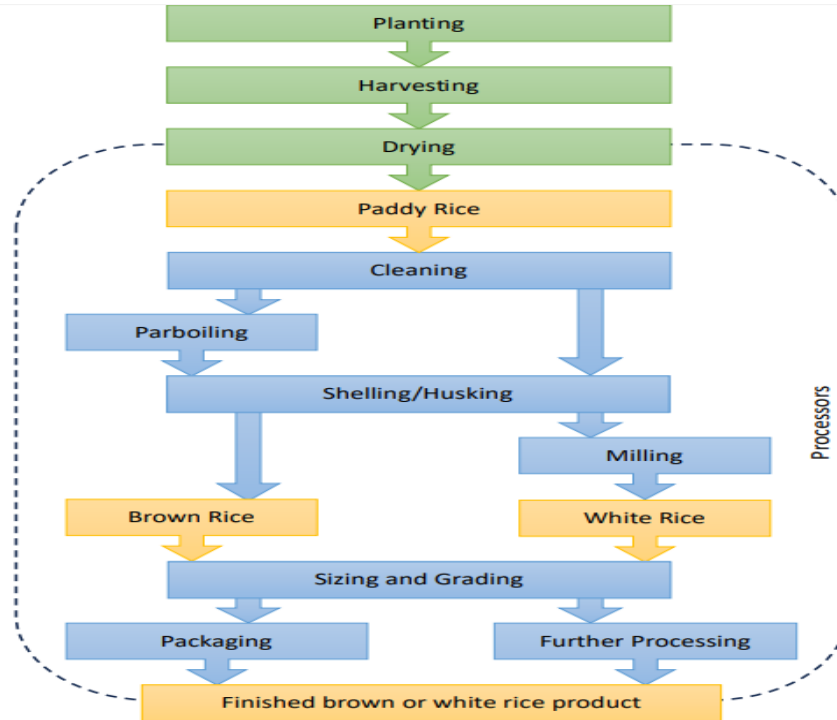
Source: USDA, January, 2025

Global Rice Consumption, by region, for Marketing Years 2018/19 – 2023/24

Region	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
South Asia	145.7	149.3	149.8	159.2	163.9	166.2
East Asia	158.9	161.0	165.4	171.4	169.9	163.4
Southeast Asia	102.9	103.7	104.1	104.7	106.1	106.8
Sub-Saharan Africa	33.6	33.9	34.5	36.2	38.2	38.0
South America	14.9	14.7	15.0	14.9	14.8	15.1
Middle East	9.2	9.4	9.2	9.6	9.8	10.2
North America	5.9	6.0	6.2	6.2	6.0	6.4
North Africa	4.6	4.6	4.6	4.4	4.3	4.6
European Union	3.2	3.4	3.4	3.5	3.3	3.3
All other	6.1	6.1	6.1	6.1	6.1	6.2
Total	485.1	492.1	498.4	516.2	522.4	520.2

Source: USDA, FAS, PSD January, 2025

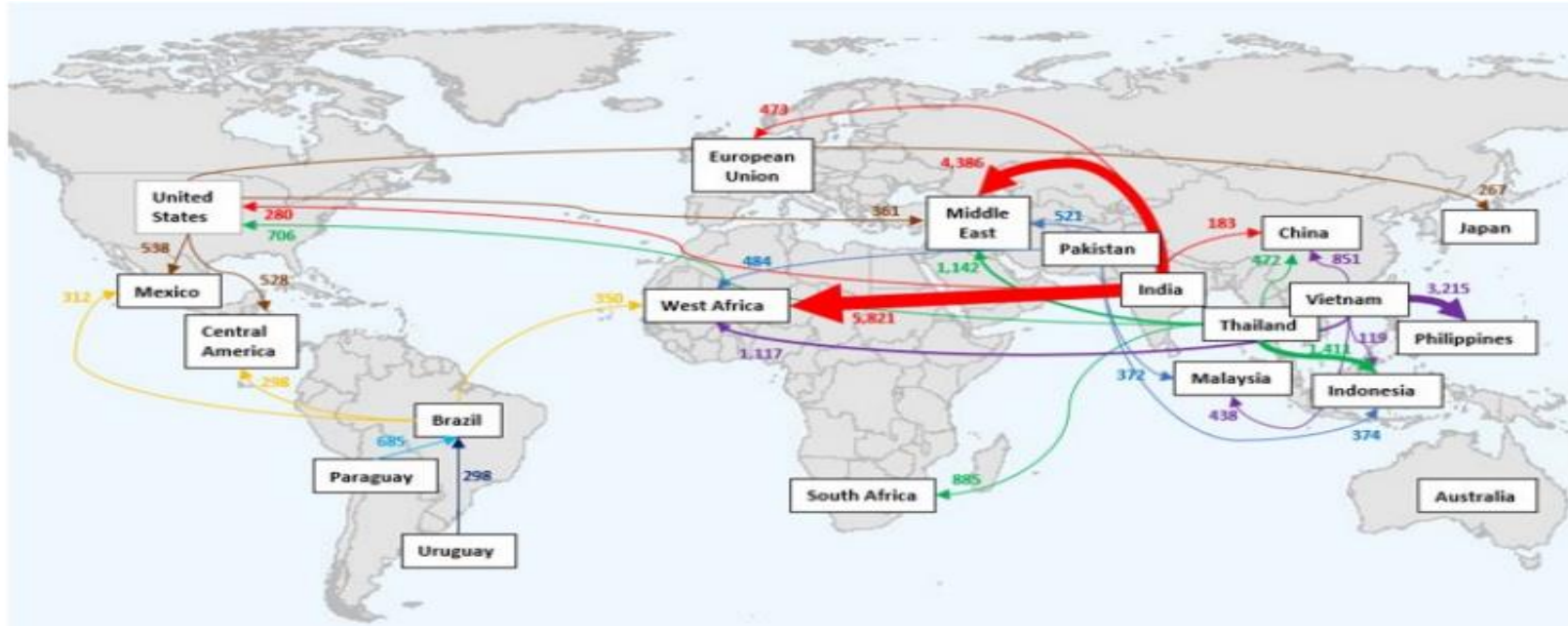
Simplified Commercial Rice Production Process



The background of the slide is a photograph of numerous sacks filled with rice. The sacks are arranged in rows, and the rice inside is a light, golden-brown color. A semi-transparent white rectangular area is overlaid on the lower half of the image, containing the title text.

Overview of the Global Rice Market

Major Global Rice Trade Flows



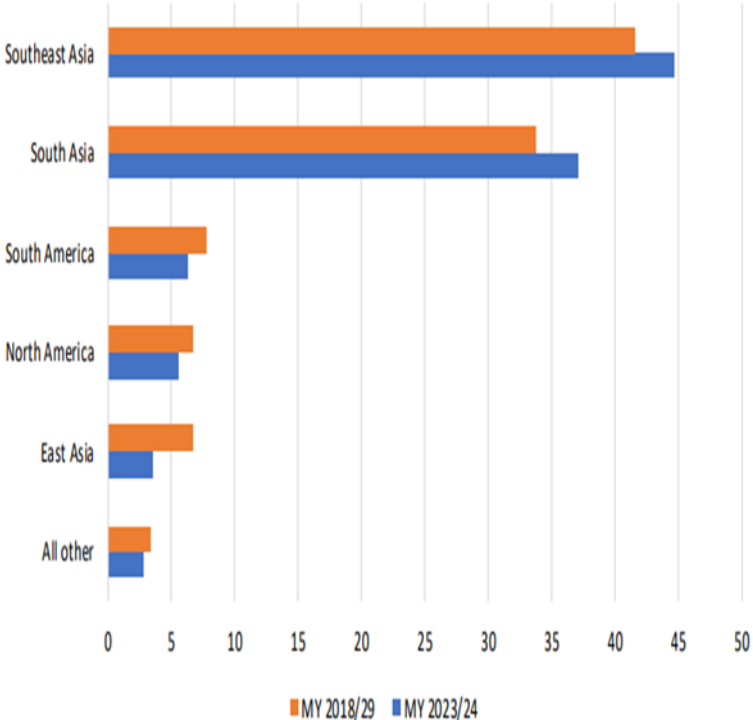
Source: S&P Global, Total exports, 2024

Global Rice Export Volumes

Trade partner	2018	2019	2020	2021	2022	2023
India	12,006	9,892	14,716	21,477	22,247	17,860
Thailand	11,232	7,584	5,733	6,266	7,695	8,748
Vietnam	2,892	5,467	5,633	5,712	6,564	6,892
Pakistan	3,932	4,589	3,986	3,991	4,604	4,560
United States	3,191	3,642	3,292	3,411	2,489	2,753
China	1,321	2,747	2,304	2,448	2,215	1,626
Burma	2,750	2,700	2,300	1,900	2,335	1,577
Brazil	1,459	1,063	1,401	854	1,731	1,454
Uruguay	829	872	1,032	761	1,096	1,108
Paraguay	707	738	903	693	824	911
Cambodia	441	555	654	635	642	648
All other	4,261	4,620	5,714	5,466	5,917	5,154
Total	45,020	44,469	47,667	53,615	58,358	53,289

Global rice export volumes by country, annually by volume, 2018-2023 in thousands of metric tons

Source: S&P Global, Total exports, 2025



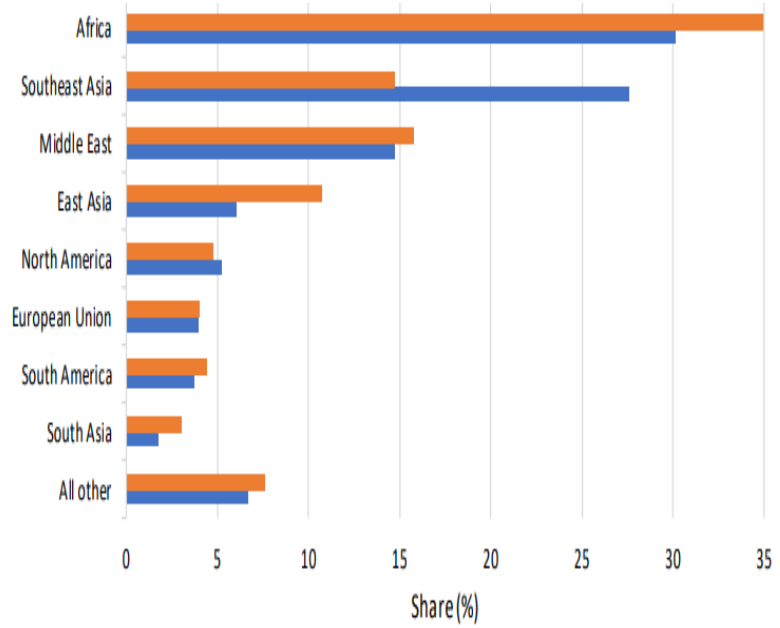
Regional share of global rice export in marketing years 2018/19 and 2023/24

Global Rice Import Volumes

Trade partner	2018	2019	2020	2021	2022	2023
Philippines	1,784	2,768	2,087	2,952	3,868	3,611
Indonesia	2,251	445	356	408	429	3,063
China	3,035	2,504	2,911	4,926	6,159	2,598
Iraq	974	1,301	1,000	1,318	2,126	1,844
Benin	2,511	1,928	1,642	1,731	2,032	1,714
Saudi Arabia	1,306	1,403	1,547	1,150	1,291	1,492
Malaysia	808	969	1,220	1,154	1,242	1,408
United States	896	964	1,188	957	1,296	1,338
Côte d'Ivoire	1,497	1,342	1,113	1,443	1,562	1,307
Senegal	997	957	1,053	1,232	1,487	1,302
South Africa	1,075	967	1,032	1,005	1,039	1,223
All other	22,955	23,402	26,972	31,249	33,304	30,151
Total	40,089	38,950	42,122	49,525	55,835	51,051

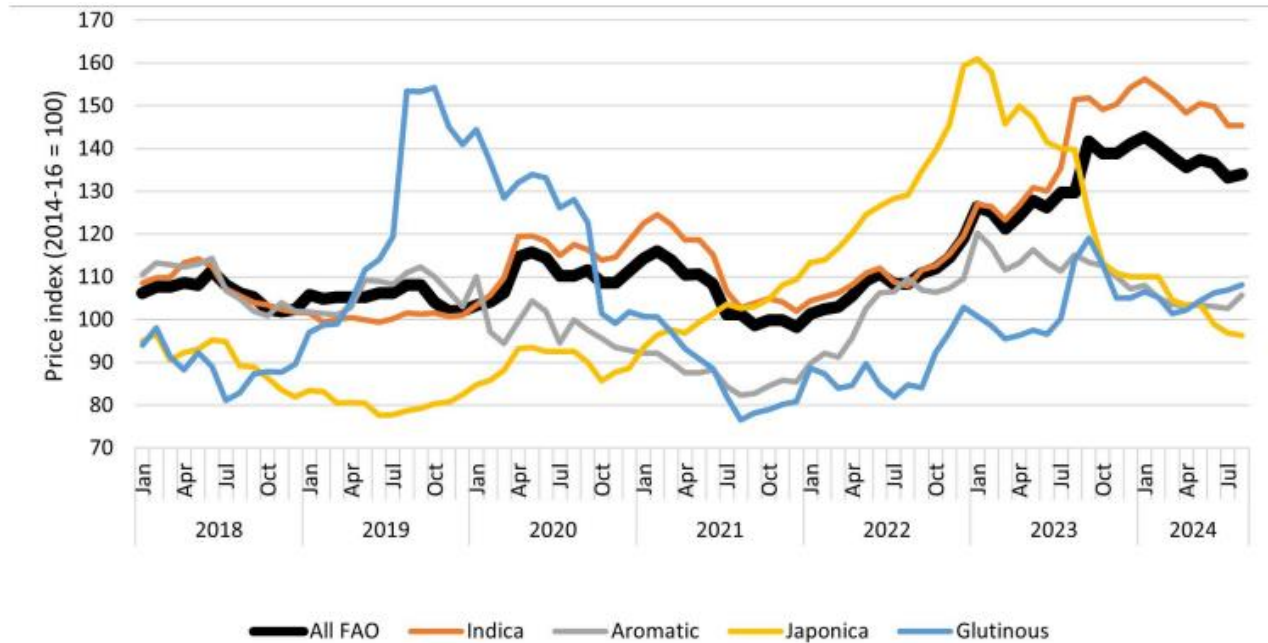
Global imports of rice, annually by volume, 2018–23
In thousands of metric tons

Source: S&P Global, Total exports, 2025



Regional share of global rice imports in marketing years 2018/19 and 2023/24

Trends in Global Rice Prices





Government Policies in Rice Markets

Government Policies in Rice Markets

- The global rice market experiences significant government intervention in both producing and consuming countries
 - Due to its importance, governments act to guarantee the availability and affordability of rice
 - Such interventions help prevent hunger and support the social stability of their populations
- In some countries, government intervention is motivated by a historical experience of food shortages and famine
 - Achieving and maintaining agricultural self-sufficiency is a major political goal for these nations
- In other countries, rice production is a key economic activity and a major source of employment and income in rural areas.
 - Govts develop domestic and trade policies aimed at ensuring stable rice supplies maintaining affordable prices for consumers, supporting stable incomes for farmers and rural worker:

Government Policies in Rice Markets

- Governments use a variety of policy tools to regulate rice production, pricing, trade, and consumption
 - Production and producer price policies are aimed at providing incentives to farmers to ensure that input and output prices allow farmers to produce profitably
- Trade policies affect both imports (e.g., quotas, tariffs, tariff-rate quotas, tax policies, import requirements) and exports (e.g., export promotion, taxes, bans, or requirements)
- Barriers to imports are aimed at protecting domestic rice industries from competition from imports. Restrictions on exports are typically designed to ensure domestic availability of supply and to protect domestic consumers from higher international prices.
- Finally, consumption policies include food aid (e.g., direct distribution of rice, food subsidies), price ceilings for domestic consumers, and regulations that ban rice as animal feed.

Q&A Session

Thank you for listening.