Food and Agriculture Organization of the United Nations

May 2023

GLOBAL RICE MARKET UPDATE

PRODUCTION

Prospects during the 2022/23 season

The 2022/23 season is well advanced. By now, countries located along or south of the equator have harvested all the crops they cultivated during the season, with main-crop harvests also fully completed in the northern hemisphere. Only offseason crops north of the equator, by now at the harvest stage, remain to be fully gathered before the production season draws to a close.

The 2022/23 season has unfolded under less than auspicious conditions since its onset, especially if compared to the previous two seasons, which yielded record-breaking global rice harvests. The surges in global input prices registered between late 2021 in the first half of 2022 put the profitability of rice production under strain, at times exacerbating producer margins that were already under pressure from price declines driven by the bumper harvests reaped in preceding seasons. Weather disruptions aggravated these constraints, being often associated with the La Niña weather phenomenon, which only dissipated in March 2023 after lingering for two and a half years. Based on the latest available information, FAO forecasts that the combined impacts of the unfavorable weather and profitability constraints registered this season will lower the 2022/23 global rice harvest to 516.7 million tonnes (on a milled rice basis), which is 1.8 percent below the 2021/22 all-time high. Yet, if confirmed, this output level would still stand-out as an above-average harvest, since, despite an anticipated 0.7 percent annual cutback, global area under paddy looks set to remain elevated, at close to 165.6 million hectares.

The relative resilience of global paddy area this season is largely attributable to Asia, where strong government assistance to the sector, often in the form of producer price support measures or input subsidy schemes, helped shield or compensate producers from hikes in production costs, thus averting steep planting contractions. This is even if the season was not without its setbacks even in Asia. Output in Pakistan was severely constrained by the devastating monsoon floods that struck the country, heatwaves and drought were experienced in the Yangtze regions of China and main-crop output in India was curtailed by unevenly distributed monsoon rains. Significant constraints in the availability or accessibility of fertilizers and other agro-

Figure 1. Global rice production and area

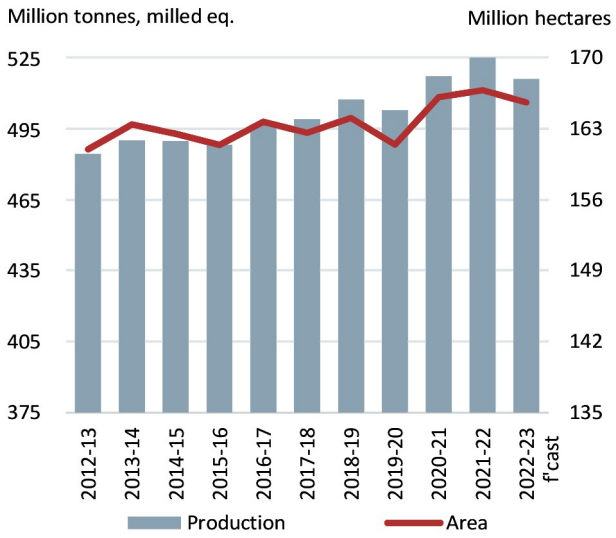


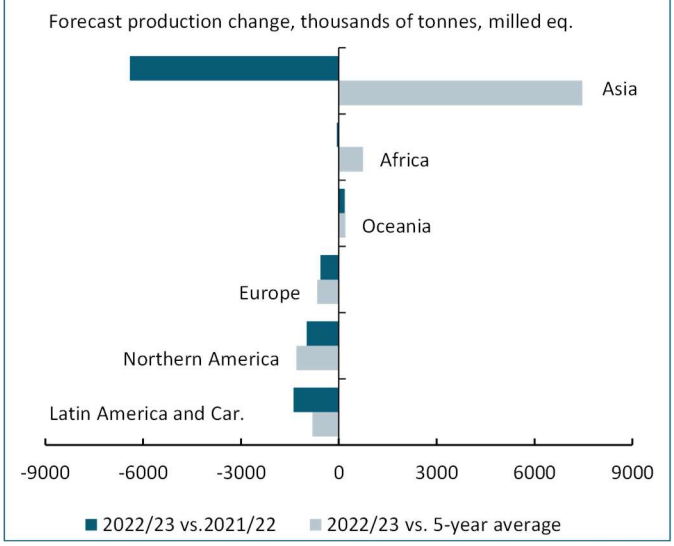
Table 1. WORLD RICE MARKET AT A GLANCE

	2020/21	2021/22 estim	2022/23 f'cast
	million tonnes, milled equivalent		
WORLD BALANCE			
Production	**518.0**	**526.0**	**516.7**
Trade [1]	**52.1**	**56.0**	**53.6**
Total utilization	**509.7**	**522.5**	**520.6**
Food	415.5	419.2	423.2
Ending stocks	**194.8**	**197.0**	**194.4**
SUPPLY AND DEMAND INDICATORS			
Global per caput food use (kg/year):	53.0	53.0	53.1
World stock-to-use ratio (%)	37.3	37.8	37.0
Major exporters' stock-to-disappearance ratio[2] (%)	28.5	28.7	29.5
	2021	**2022**	**2023 Jan-Apr**
FAO All Rice Price Index *(2014-2016=100)*	106	109	124

[1] Calendar year exports (second year shown).
[2] Major exporters include India, Pakistan, Thailand, the United States of America and Viet Nam.

chemicals also led to important output declines in Myanmar and Sri Lanka. While these setbacks look set to result in poor harvests in China, Myanmar, Pakistan, Sri Lanka and Viet Nam, more positive results are expected elsewhere. This is especially the case of Bangladesh, Cambodia, the Philippines, and, especially, India and Thailand. Thanks to abundant harvests in these countries and despite an anticipated 1.4 percent reduction relative to the 2021/21 all-time high, Asian rice output in 2022/23 is still expected to remain some 7.5 million tonnes above its previous five-year average, at some 466.7 million tonnes.

Figure 2: Regional production trends



In Africa, the 2022/23 season is also expected to conclude with an above-average rice crop of 24.6 million tonnes, despite flooding problems registered in some countries and a second successive poor harvest in Eastern Africa under the influence of the La Niña. Indeed, generally conducive rains and attractive prices are envisaged to raise output in West Africa to an all-time peak, with good results also attained in Madagascar and in Egypt, Southern and Northern Africa's largest producers, respectively. In Oceania, positive price prospects and ample water supplies for irrigation also helped output in Australia recover to a five-year high.

Expectations are more subdued in the other regions. This is especially the case of the Americas, where low producer margins or more attractive returns for alternative crops, such as soybeans, led paddy plantings to contract to multi-decade lows. These planting retrenchments were compounded by unseasonable dryness, often associated with the La Niña phenomenon. In Europe, dry weather also significantly impaired water supplies for irrigation in the European Union's two leading producers (Italy and Spain), to which area losses resulting from the collapse of an important irrigation dam in the Russian Federation added.

Early production prospects for the 2023/24 season

Meanwhile, the 2023/24 season is already underway in countries located along and south of the equator, where 2023/24 main crops are currently being harvested. Early results point to mixed outcomes for these crops. In Southern and South-eastern Asia, crop development was aided by generally conducive growing conditions. For instance, although continued shifts towards cultivation of other crops or pressure to convert land to other purposes caused area under the winter-spring crop to decline in Viet Nam, positive yield outturns are being reported in the Mekong River Delta, which should help stabilize winter-spring output. Likewise, officials in Indonesia indicate an overall favourable main-crop harvest, facilitated by an upturn in area under paddy. Greater access to basic inputs is also set to pave the way for output in Sri Lanka to recover from the dismal 2022/23 result, even if only partially. At the same time, influenced by the La Niña event, which prevailed for much of the crop growth period, various producing countries in Eastern Africa and in South America were beset by a third successive dry season, while excess rains at planting time also posed some setbacks in Australia.

Looking ahead, throughout much of the northern hemisphere, the 2023/24 season will only begin in May/June, with the arrival of the seasonal rains that will mark a start to main-crop planting. In this part of the world, the recoveries in producer prices and reductions in international input prices registered since mid-2022 elicit expectations that producers will react by expanding plantings. Yet, many uncertainties still lie ahead, particularly on the weather front. Indeed, climate prediction agencies point to a strong likelihood of an El Niño event emerging during the northern-hemisphere summer. As the phenomenon is often associated with drier that normal conditions in Southern and South-eastern Asia and in Central America and the Caribbean, the weather anomaly could influence the growth of main-crops north of the Equator and water availability for irrigation of 2023/24 offseason crops in both the northern and southern hemisphere.[1] While such a prospect already underscores the need for preparedness, the potential impacts that the El Niño phenomenon could have on global rice production

[1]The El Niño phenomenon could potentially stretch its influence into the 2024/25 season, since in various countries located in South Asia, Southeast Asia, Southern Africa, Eastern Africa, Oceania, and South America, sowing of 2024/25 main crops normally takes place during the last quarter of each calendar year.

will only be clearer in the next few months, when the uncertainty that normally surrounds climate forecasts at this time of the year will ease and more information will become available regarding the potential timing of the El Niño emergence, its possible intensity and potential concurring phenomena, such as the Indian Ocean Dipole.

INTERNATIONAL PRICES AND TRADE

Exports

Although generally ample exportable supplies amassed from successive bumper harvests endowed international prices of rice with more resilience to upward pressure than those of some other basic foodstuffs in 2022, rice export prices have been on the rise for much of the past sixteen months. As measured by the FAO All Rice Price Index, in April 2023 international rice prices stood 17.8 percent above their year-earlier levels. A host of factors have contributed to this increase, including strong global demand for food and for animal feed, hikes in production costs, weather-induced output disruptions in some suppliers, as well as policy measures.

Against this backdrop, international trade in rice appears headed towards its first contraction in four years. FAO anticipates global rice exchanges in 2023 (January-December) to amount to 53.6 million tonnes, which is 4.4 percent below the 2022 all-time high. Viewed from the export side, the production disruptions registered over the course of the 2022/23 season by various rice exporting countries are expected to undermine their capacity to ship supplies abroad and keep export prices at competitive levels. This is primarily envisaged to be the case of Argentina, Brazil, the Russian Federation, the United States of America and, especially, Pakistan. India's retreat from the broken export market, following the country's imposition of an export ban on shipments of fully broken rice in September 2022, is expected to add to these reductions. This is all the more so since the capacity of alternative broken suppliers to step up broken shipments may be limited by strong domestic demand for brokens, as is expected to be most notably the case of Pakistan, and/or by volatile currencies or other macro-economic constraints. For instance, in Myanmar, such constrains have led to the implementation of stringent requirements since last year regarding the conversion of export earnings into the local currency that could stifle export growth.

However, barring major disruptions and despite the anticipated annual reduction in Indian shipments, overall exports by India in 2023 are still forecast to remain over the 20 million tonne mark they have consistently exceeded since 2021. This is so since another bumper 2022/23 harvest may aid the country keep its export offers of non-brokens at competitive levels, even after the September imposition of export taxes on some of these qualities.[2] In addition, Indian officials have approved a series of

Figure 3. Global rice trade and FAO All Rice Price Index

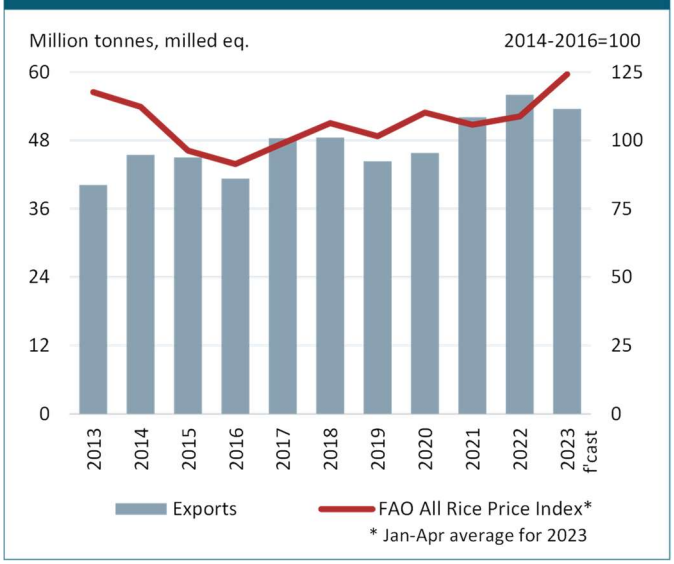
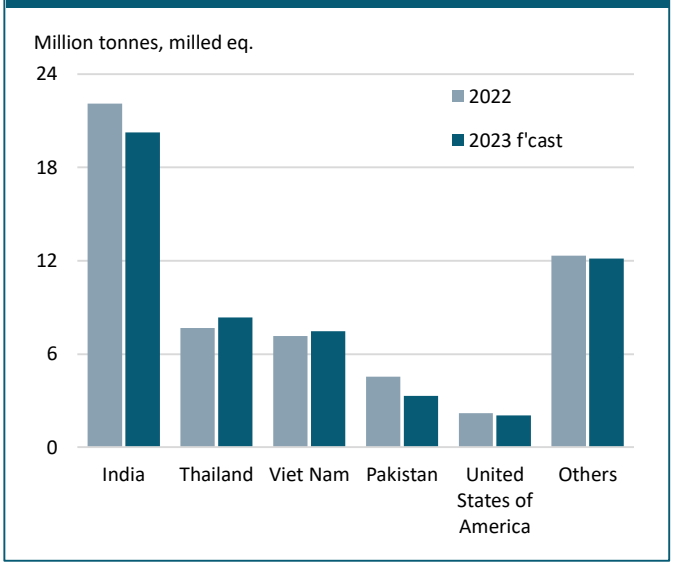


Figure 4. Exports by the five major exporters



[2] The export ban on fully broken rice introduced by India on 8 September 2022 was accompanied by the imposition of a 20 percent export duty on non-basmati and non-parboiled rice shipments. Since their introduction, however, Indian officials have approved a number of relaxations to these measures. The most notable of them were the establishment of a 392 000 tonne export quota, valid until the end of March 2023, for broken shipments that prior to the imposition of the export ban already had letters of credit opened; exempting organic non-basmati rice from the export duty and organic non-basmati brokens from the export ban; allowing up to 600 000 tonnes of paddy to be exported to Nepal, free of the export duty, as well as permitting a combined 360 000 tonnes of broken shipments to selected African countries.

relaxations to the export measures they imposed in September 2022, including waiving export taxes for a volume of paddy destined to Nepal and permitting shipments of some broken supplies to selected African destinations. Various other exporters of rice, including Australia, Cambodia, Guyana, Thailand, and Viet Nam, are likewise expected to count on sufficient supplies to step-up shipments over the year, or to keep them at overall abundant levels as is expected to be the case of Paraguay and Uruguay.

Imports

On the demand side, most regions, other than Latin America and the Caribbean, may see their imports subside over the course of 2023. In absolute terms, however, Asia and Africa look set to absorb much of the import contraction forecast for this year. Indeed, some Asian countries, such as China, Iraq and the Philippines, may count on sufficient local availabilities to lower their foreign purchases relative to the record-highs they registered in 2022. In the case of China, which along Viet Nam had emerged as an important buyer of brokens since 2021, forecast import cuts are also expected to be linked to reduced global exportable availabilities of brokens. At the same time, some Asian countries, including Bangladesh and Indonesia, have continued to recur to imports to refurbish stockpiles and contain domestic prices that have been under upward pressure from the lingering effects of the COVID-19 pandemic and broader inflationary pressure, including from increases in fuel, production and transport costs. Such moves could contribute to keep overall deliveries to Asia well above their pre-2021 level. On the other hand, import prospects for Egypt, Ghana and Sierra Leone, are clouded by macro-economic and currency related developments. Disruptions to trade of fully broken rice also raise some concern for various importers in Africa, considering that for countries such as Burkina Faso, Ethiopia, Gambia, and Senegal brokens constitute an important, if not primary, share of imports. These purchases are destined for food use, as consumer preferences can lean heavily if not completely towards fully broken supplies in some areas. Worryingly, many African countries have already been experiencing the impacts of high domestic rice prices. For these countries and other price-sensitive buyers, their capacity to pay for supplies from abroad risks being further exacerbated by recent increases in international rice prices.

RICE UTILIZATION

Global use of rice is expected to remain robust in 2022/23. At a forecast 520.6 million tonnes, world rice utilization would be just 0.4 percent shy of the record-high volume absorbed in 2021/22. Since rice is primarily a foodstuff, 81 percent of this volume, or some 423.2 million tonnes, is envisaged to be destined to food uses. This would represent a 1.0 percent year-on-year food expansion that would largely keep track with projected population growth. Thus, global per caput food intake of rice could remain largely stable at close to 53.1 kilos per person. This comparatively buoyant intake outlook also reflects the continuation of special government schemes seeking to assist consumers cope with inflationary pressure or wider economic shocks by ensuring rice remains accessible. For instance, said programmes are being implemented in countries such as Bangladesh, Indonesia, Sri Lanka, and most notably in India. Between April 2020 and December 2022, under the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) program, the Government of India markedly expanded its subsidised public distribution of rice and wheat in order to sustain vulnerable consumer during the COVID-19

Figure 5. Rice imports by region

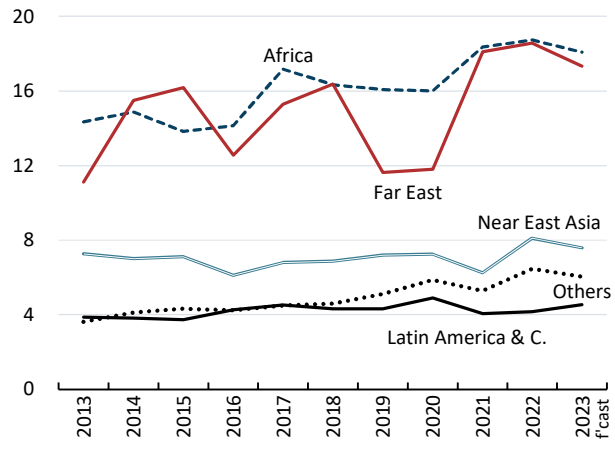
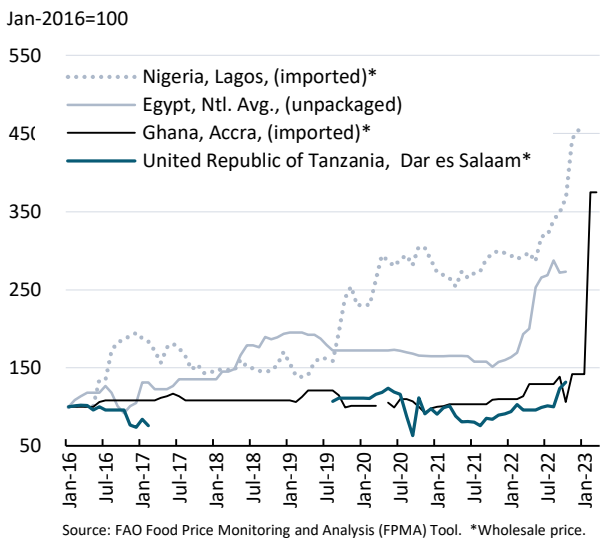


Figure 6. Domestic prices in selected African countries



Source: FAO Food Price Monitoring and Analysis (FPMA) Tool. *Wholesale price.

pandemic.[3] For instance, in its first two years of implementation, the PMGKAY distributed 45.5 million tonnes of rice, on top of volumes normally distributed under the National Food Security Act (NFSA) and other subsidy schemes. While in-kind distributions under the PMGKAY scheme wound down in December 2022, starting in January 2023, in their place Indian officials waved ration prices under the NFSA for a year, thereby rendering their distribution of rice and wheat free of charge for all 813.5 million people covered by the country's NFSA programmes. Such moves may contribute to keep Indian intake of rice at above-average levels for a third successive season.

On the other hand, volumes destined to other uses, including seeds, industrial uses, post-harvest losses and animal feed are envisaged to experience a 5.7 percent year-on-year reduction in 2022/23 to a total of 97.4 million. Much of this shortfall is anticipated to reflect a retrenchment in volumes destined to animal feed. Although still comparatively small and accounting for just 5 percent of overall global use of rice, use of rice for animal feed had risen markedly in the previous two seasons, as high grain prices rendered broken rice a more economically feasible feed alternative than it traditionally is. Over the course of the ongoing season, however, prospects of continued strong feed use are dampened by expectations of reduced exportable availabilities of brokens. If sustained, recent declines in international grain prices could also go to ease demand for brokens as a feed alternative.

CLOSING STOCKS

As current prospects point to world rice utilization remaining robust in 2022/23 and possibly exceeding production levels, world rice stocks at the close of 2022/23 marketing seasons may need to edge down to 194.4 million tonnes in order to meet anticipated consumption needs. Although this level would represent a 1.3 percent reduction from the record stock volume of 2021/22, it would still be sufficient to cover 4.4 months of prospective global consumption.

As in previous seasons, global carry-over trends in 2022/23 are anticipated to be highly influenced by developments in the two leading producers, consumers and traders of rice: China and India. Put together, the two countries are estimated to have accounted for over 70 percent of global rice reserves over the past five seasons. In particular, a stock drawdown in China, stemming from the shorter crop gathered in 2022/23 but also from releases of public stocks of rice, could be offset by a rebound in reserves held by India. In India, the anticipated stock rise could occur especially if in the months ahead a record offseason harvest keeps the pace of domestic government procurement strong, thus driving a recovery in state stockpiles. Nevertheless, within Asia, Bangladesh, the Islamic Republic of Iran, the Philippines, the Republic of Korea and Thailand are all likewise seen ending the season with larger rice reserves, which would help offset anticipated drawdowns in Myanmar, Pakistan, Sri Lanka and Viet Nam. Thus, overall Asian reserves could remain at near-record levels of close

Figure 7. Rice production, utilization and stocks

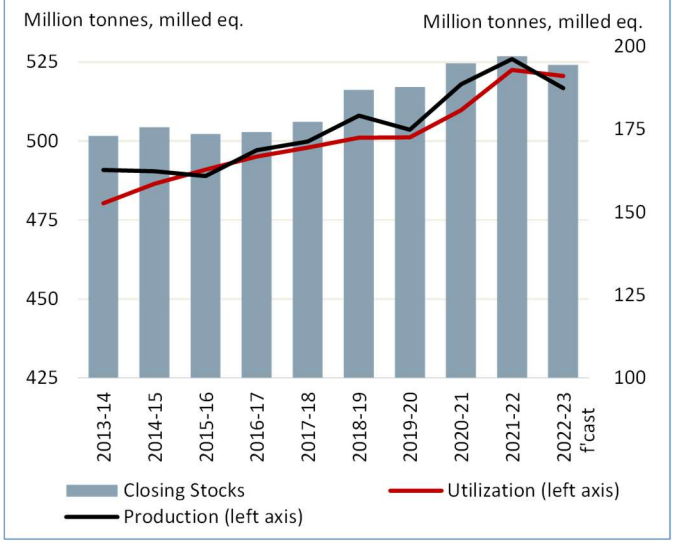
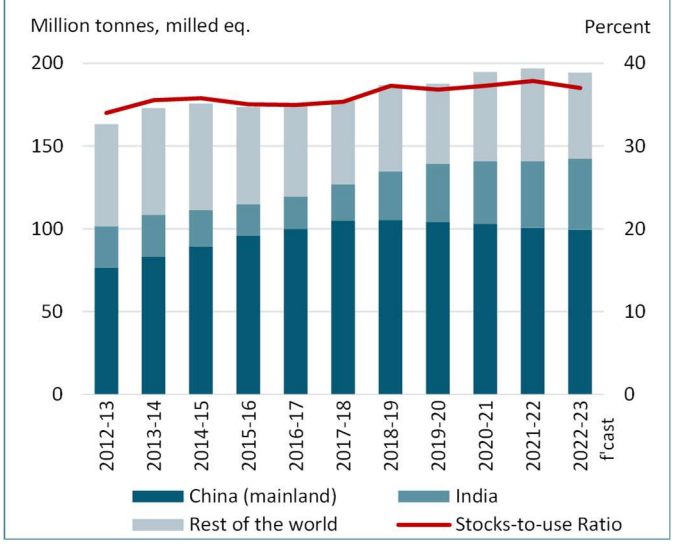


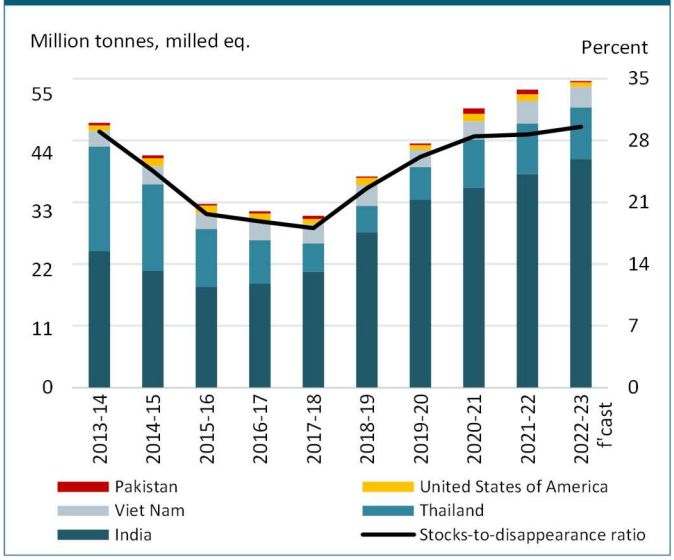
Figure 8. Global closing stocks and stocks-to-use ratio



[3] During its seven successive phases of implementation, the Pradhan Mantri Garib Kalyan Anna Yojana program distributed rice and wheat through per person monthly rations of 5 kg to 800 million people covered by the National Food Security Act (NFSA). These rations were free of charge and were distributed on top of existing assistance under the NFSA. Starting in May 2022, rice distribution needs under these programs were further augmented by heat-induced disruptions in Indian wheat production, which prompted officials to compensate for reduced wheat supplies by boosting volumes of rice in distributed rations.

to 183.9 million tonnes. Carryover prospects are more downcast for other regions. This would be especially so for Latin America and the Caribbean and Northern America, which could see poor harvests reduce their reserves by nearly a quarter year-to-year. In Africa too, output reductions witnessed in Eastern Africa alongside reduced import prospects for countries such as Ghana, Ethiopia and Senegal may contribute to a 13 percent drawdown of rice reserves.

Figure 9. Stocks held by the five major rice exporters and stocks-to-disappearance ratio



If viewed from a trade perspective, these carry-over trends are expected to translate into a third successive season of drawdowns held by rice importers, as a group, to 129.8 million tonnes. This is while reserves held by the five major exporters could rise by 3.0 percent year-to-year to 57.6 million tonnes. Although the latter increase would serve to boost the major exporter's stock-to-disappearance ratio to a comfortable level of 29.5 percent, it may be worthwhile to note that much of the predicted stock rise envisaged for the main global rice suppliers could concentrate in India and, to a lesser extent, in Thailand.

Monthly updates of selected rice export prices are available on the FAO Rice Price Update at:
https://www.fao.org/markets-and-trade/commodities/rice/fao-rice-price-update/en/.

A collection of major rice policy developments starting in January 2011 is available at:
https://www.fao.org/markets-and-trade/commodity-policy-archive/en/

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