

AGREP

Arkansas Global Rice Economics Program

International Rice Outlook International Rice Baseline Projections, 2019–2029



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² FAPRI-Missouri is the lead institution of the research consortium that develops the annual baseline projections. It includes the University of Missouri-Columbia, University of Nevada-Reno, University of Arkansas in Fayetteville, Texas A&M University, and Texas Tech University.

Abstract

The year 2019 marked a record level of global production and consumption, the second largest level of global rice trade, and the highest stock-to-use ratio since 2001. All this to say that the global rice market, and in particular the long grain segment that accounts over 80% of the global production and consumption and over 75% of the global rice trade, has been dominated by plentiful supplies that have kept international prices soft for the most part.

Over the next decade, the average global rice price is projected to increase steadily at 0.77% annually as total global trade grows at 1.73% and global stocks become relatively tighter over the same period. India and Thailand maintain their dominant roles in global trade as the top rice exporters, followed by Vietnam, Pakistan, Myanmar, and the U.S. On the import side, China, Western Africa (ECOWAS), the Middle East, and the Philippines will remain the major global rice destinations. The volume growth in global trade over the next decade is accounted for mainly by expansion in export shipments from India, Thailand, Vietnam, China, and Myanmar; in tandem with strong import demand from countries in Western Africa and the Middle East.

According to the Rice Production-Consumption Index (RPCI), over the next decade Thailand, Pakistan, and the U.S. are projected to be the most reliable rice export suppliers in the international market, with Myanmar and Cambodia have the best potential to expand rice exports. On the other hand, the Middle East, ECOWAS-14, and EU 28 will remain highly import-dependent; with the Philippines becoming more import-dependent over the same period.

Over the next decade, global rice production is projected to increase by 0.50% a year, which comes solely from yield improvements as global harvested area declines slightly. Global rice consumption is projected to grow 0.85% annually, driven exclusively growth in population as average per capita use declines slightly by 0.20% annually. The projected growth in consumption outpaces the growth in production, causing global stocks-to-use ratio to decline annually by 0.49% over the next decade.

Keywords: Rice, Arkansas Global Rice Model, international baseline projection, stochastic analysis, deterministic analysis, RPCI

JEL Codes: C02, F01, F14, F17, Q17, Q18, R11

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Introduction

The purpose of this outlook is to present a baseline for the current state and likely directions of the rice economies in the world over the next decade by assessing potential supply and demand behaviors. While the projections are not necessarily predictions, they can be used as planning tools for various stakeholders in the rice industry as well as guide for agricultural agribusinesses and policymakers.

The baseline estimates presented in this report are generated using the Arkansas Global Rice Model (AGRM). AGRM is a non-spatial statistical simulation and econometric framework developed and maintained by the Arkansas Global Rice Economics Program (AGREP) in the Department of Agricultural Economics and Agribusiness at the University of Arkansas in Fayetteville. It covers 70 rice-producing/exporting and rice-consuming/importing countries and regions in the world.

The AGREP researchers have benefited substantially from working closely with colleagues at FAPRI-MU, who maintain U.S. agricultural and other commodity models. They provide AGREP with two critical sets of components for the AGRM model, namely: (a) updated macro data from IHS Markit for all countries and regions covered, including population, real gross domestic product, foreign exchange, and consumer price index; and (b) projections on variable costs of production for U.S. rice, and prices and net returns for other U.S. crops, which are iteratively exchanged with the AGRM international rice prices and country models until a reasonable set of mutually agreed equilibrium market conditions are reached.

In particular, prices and net returns for corn, soybeans, and wheat are relevant for AGRM, considering that these commodities are substitute crops for rice in the U.S. and other countries. For example, rice area competes with a number of crops including soybeans, corn, and cotton in rice-producing states in the U.S. (Arkansas, Louisiana, Missouri, Mississippi, Texas, and California). In China, rice competes with corn in the provinces of Guangxi, Heilongjiang, Jilin, and Liaoning; with wheat in the province of Jiangsu; and with both corn and wheat in the provinces of Anhui, Chongqing, Guizhou, Hubei, Ningxia, Sichuan, and Yunnan. In India, rice competes with wheat particularly in the northern states (Wailes, Chavez, and Durand-Morat, 2019).

The historical rice data comes from USDA-FAS (2020a, 2020b) and USDA-ERS (2020); and the macro data comes from IHS Markit provided by FAPRI-MU as of January 2020. The AGRM rice marketing years by country follows the USDA system. For example, *the year 2019 or marketing year 2019/2020* in the model refers to January 2020–December 2020 for Thailand, Vietnam, and Indonesia; October 2019–September 2020 for India; July 2019–June 2020 for the Philippines; August 2019–July 2020 for the U.S.; and April 2020–March 2021 for Argentina, Brazil, and Uruguay. See the link <http://apps.fas.usda.gov/psdonline/psdAvailability.aspx> for details. The compound annual growth rates, as well as the total growth numbers presented in this document, are estimated using the three-year average from 2016 through 2018 as the base year and cover the next 11-year period ending in 2029.

The AGRM is disaggregated into 70 of the major countries and regions in the world that produce, consume and trade rice, with the rest of the world (ROW) aggregated into five regional groups, namely Africa, the Americas, Asia, Europe, and Oceania. With rice as an ascendant food staple in Sub-Saharan Africa, projections are provided for selected West African countries and

for the Economic Community of West African States (ECOWAS).³ Each country or regional model includes a supply sector (harvested area and yields) and a demand sector (per capita use and population growth), with trade, stocks, and price linkage equations. The global rice market is disaggregated into two rice types: long grain and medium grain rice. The model solves for long grain and medium grain international rice prices that balance net global trade by rice type.

The deterministic baseline has the following assumptions: a continuation of existing policies, updated IHS Markit projections for macroeconomic variables, and average normal weather conditions. Growth rates in rice yields in selected countries consider the potential positive impacts of the Global Rice Science Partnership (GRiSP) R&D funding on global rice productivity.

The stochastic baseline provides a range of probable outcomes (confidence intervals) as opposed to the deterministic analysis, which generates only average point estimates. Stochastic estimates are useful, given the fact that usually not all the underlying assumptions in the deterministic baseline hold true in reality, i.e., actual market outcomes deviate from average estimates. Stochastic analysis provides indications of risks and uncertainties that characterize the international rice economy, considering that it is agriculture-based and subject to occasional extreme weather-related shocks.

The stochastic framework is generated using multivariate empirical distributions (MVE) of the yield variable for each of the 70 countries and regions in the model including the six rice-producing states in the United States. Yield is chosen as the stochastic variable because it varies by year and by country, and is very sensitive to seasonal changes, weather conditions and water availability—factors that are critical for rice production. The MVE takes into account serial and geographical covariance. A total of 300 random draws are implemented using a 34-year empirical distribution of historical yields from 1984 through 2017, generated using the software Simulation & Econometrics to Analyze Risk (Simetar) developed by Richardson et al. (2009).

Overview of Global Rice Policies

The global rice economy continues to be one of the most policy-distorted markets (Wailes, 2005; ICTSD, 2017). The AGRM projections reflect policy interventions through the trade, stocks, supply, and demand equations in the model. There is significant border protection through tariffs and tariff rate quotas in many importing countries. The primary rationale for these policies is to indirectly support domestic producers, usually with the underlying goal of improving rice self-sufficiency. Rice-exporting countries have increasingly turned to rice price and input subsidies to help their rice producers become competitive in world markets and to support farmers' incomes.

The country-specific rice policies used in the model are documented in Appendix Table 1. The primary policy data sources include the World Trade Organization (WTO), the Rice Market Monitor and the Food Policy and Market Development in Global Information and Early Warning System (GIEWS) maintained by the Food and Agriculture Organization (FAO), the Agricultural Market Information System (AMIS) policy database, and the Global Agricultural Information

³ ECOWAS includes the 15 countries of Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo. In this report, ECOWAS-14 excludes Nigeria.

Network (GAIN) Reports from the Foreign Agricultural Service (FAS) of the U.S. Department of Agriculture (USDA).

Macro Data for Major Rice-Exporting Countries

Basic macro data for real gross domestic product (GDP) growth, exchange rates for local currency relative to the US dollar (USD), and population growth are presented in Figures 1–3 for six major exporting countries that include Thailand, India, Vietnam, Pakistan, Myanmar, and Cambodia.

For the major rice exporters, GDP generally grows from 6%–7% annually over the baseline period, except for Pakistan and Thailand which have relatively low growth rates of 3%–5% (Figure 1). The exchange rates relative to U.S. dollar (USD) is relevant in rice trade because the global rice market is denominated in USD. Figure 2 shows nominal foreign exchange rate indices in terms of USD per local currency using 2010 as the base year. Currencies of Thailand and Cambodia remain on par; whereas, those of Vietnam, Pakistan, Myanmar, and India depreciate relative to the US dollar over the baseline period. Everything else equal, this implies that export competitiveness of these latter four countries is expected to improve over the baseline.

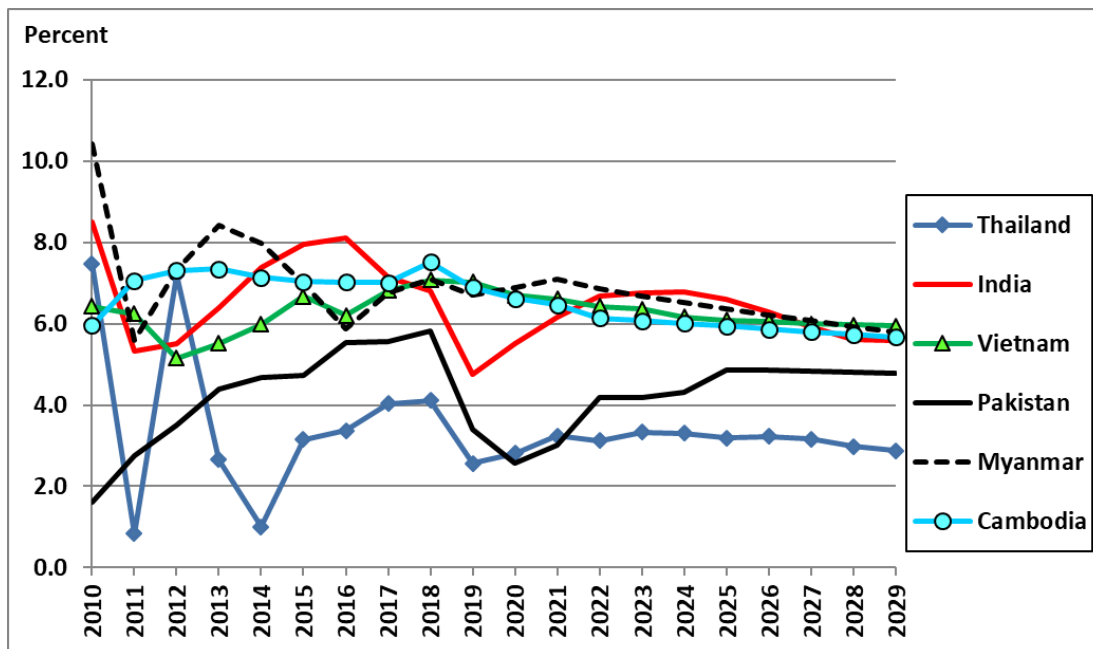


Figure 1. Annual growth of real Gross Domestic Product (GDP) of major rice-exporting countries, percent, 2010–2029.

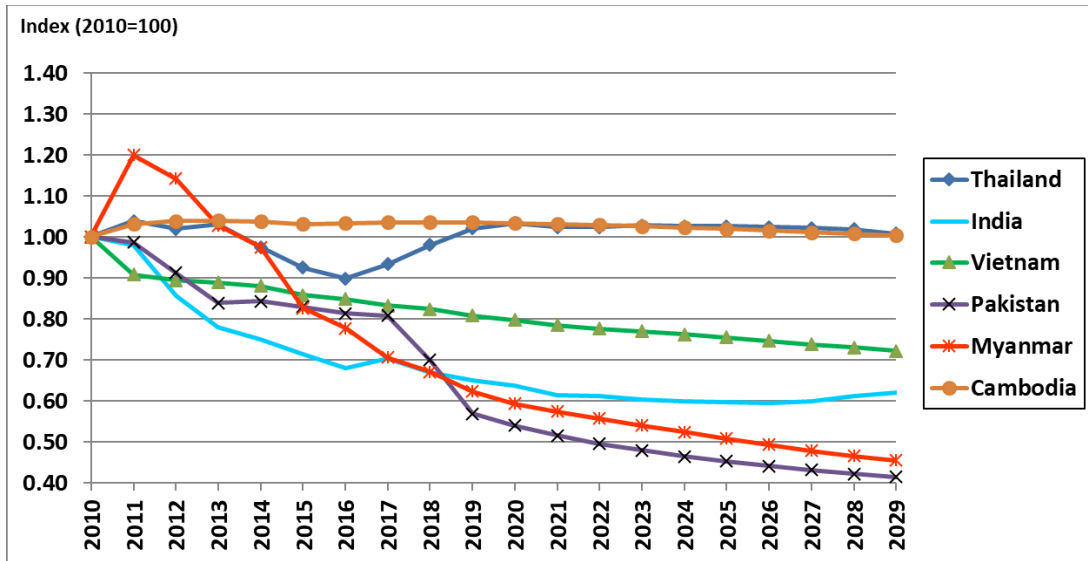


Figure 2. Nominal foreign exchange rate index (2010 = 100) of major rice-exporting countries, US dollar/local currency, 2010–2029.

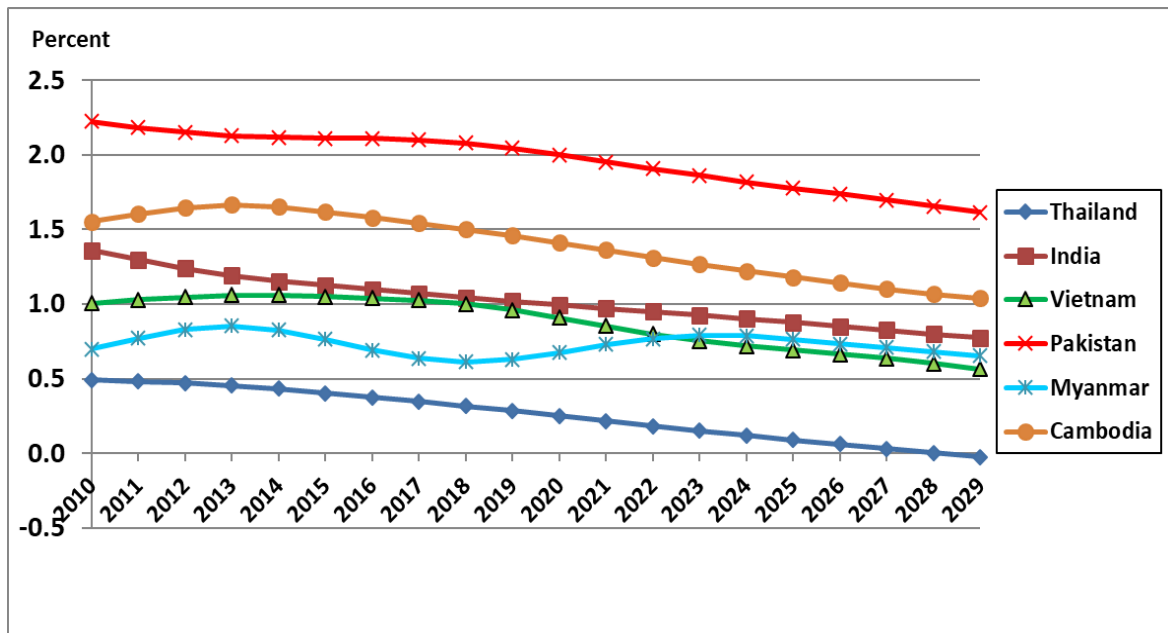


Figure 3. Annual rate of population growth of major rice-exporting countries, percent, 2010–2029.

The population of the same set of exporting countries all grow at a declining rate over the projection period. Thailand’s population has the lowest growth at less than 0.5% and is expected to approach zero by 2029, while Pakistan has the highest rate of around 2% on average (Figure 3). The population growth rates of the rest of the group lie somewhere in between.

Macro Data for Major Rice-Importing Countries

Macro data for seven major rice-importing countries that include Nigeria, China, Indonesia, the Philippines, Iran, Iraq, and Saudi Arabia are presented in Figures 4 thru 6.

Figure 4 presents the annual real GDP growth rates of these major importing countries. China, the Philippines, and Indonesia are projected to have GDP growth between 4-6% over the baseline period, while the projected rates for Saudi Arabia, Nigeria, and Iran range from 1-3%.

Figure 5 shows that the currencies of Nigeria and Iran depreciate relative to the USD, indicating that, everything else equal, their rice imports will be relatively more expensive over the next decade. The currencies of China, Saudi Arabia, Iraq, and Indonesia are stable, indicating a relatively steady cost of rice importation for these countries. In contrast, the Philippine peso is projected to appreciate, making rice imports cheaper over the same period.

The populations of all these major rice-importing countries are generally growing but at a declining rate, with those of China, Iran, and Saudi Arabia at a relatively faster decline (Figure 6).

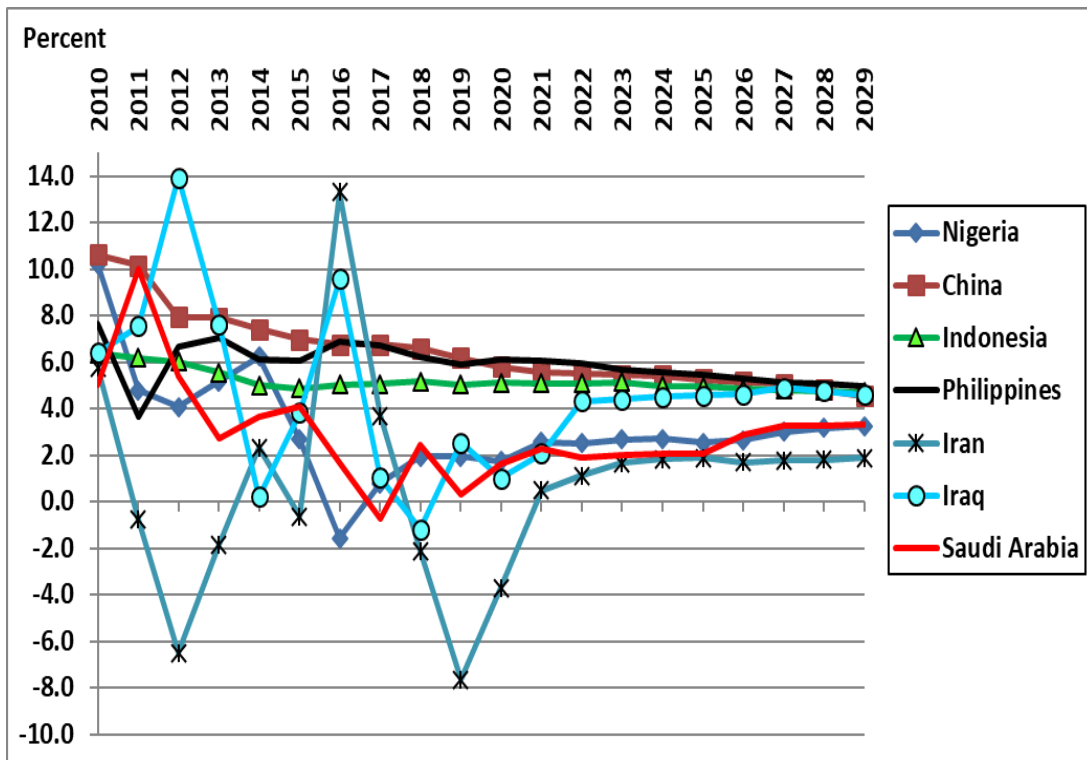


Figure 4. Annual growth of real Gross Domestic Product (GDP) of major rice-importing countries, percent, 2010–2029.

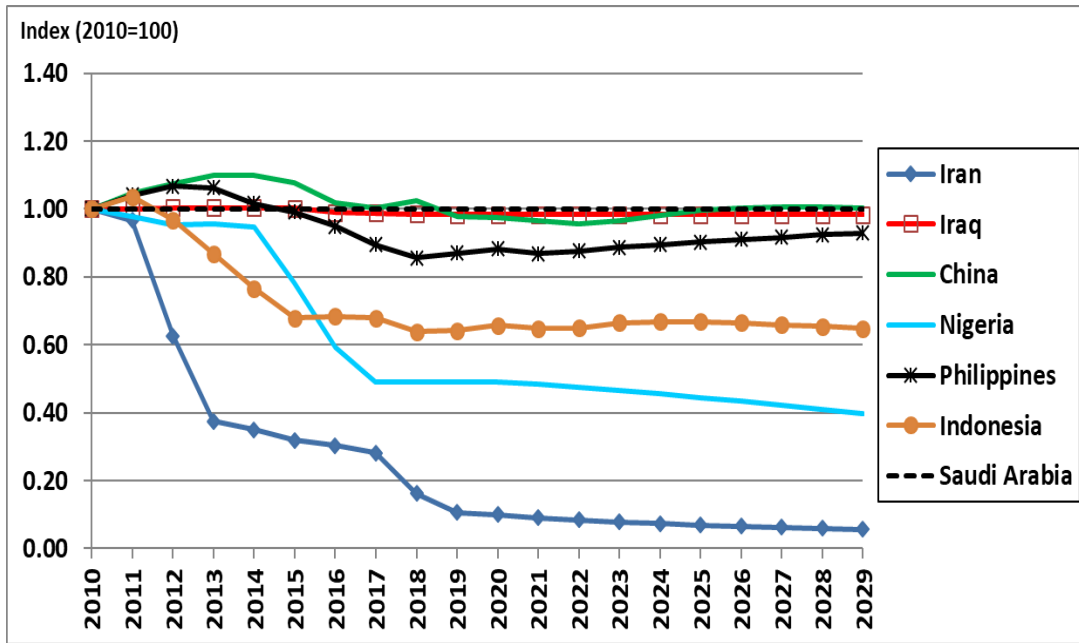


Figure 5. Nominal foreign exchange rate index (2010 = 100) of major rice-importing countries, US dollar/local currency, 2010–2029.

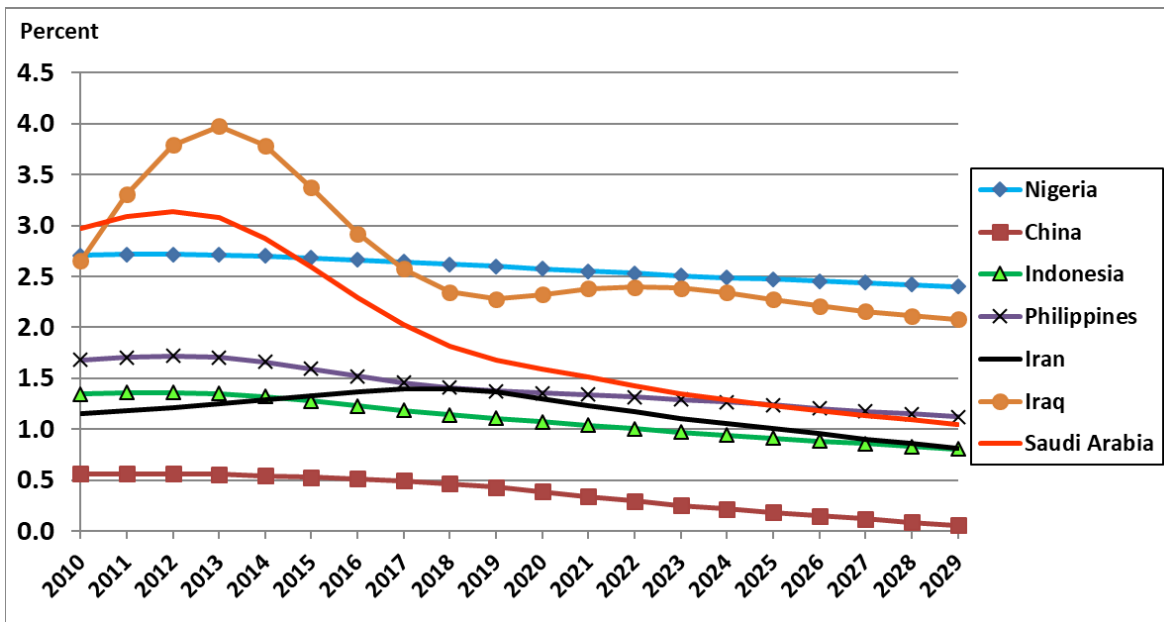


Figure 6. Annual growth of population of major rice-importing countries, percent, 2010–2029.

Key Market Drivers

Recent Developments and Baseline Overview

There are a number of recent significant developments in the global rice market that can be considered as the likely main drivers of rice prices, supply, and demand going forward. In the

case of Thailand, there is currently a lack of competitiveness of Thai rice reflected by the sharp decline in its exports in 2018 and 2019, resulting among other things from a strong currency and a production shortfall in 2019 due to adverse weather conditions that included insufficient irrigation water supplies, droughts, and floods in different parts of the country.

Another major development is the rise of China as a major rice exporter, reportedly taking advantage of competitive export prices and growing market opportunities in Africa. The country reduced its rice imports by 2.8 mmt in 2018, as demand for foreign supplies decreased; and decided to hold auctions of its old rice reserves. Reports indicate that auction prices were attractive to domestic buyers; and sales have been active, reaching 12 mmt of rice from its state-owned inventories (USDA-FAS, 2019a).

Finally, another relevant development is the change in trade policies adopted by the Philippines in 2019, which calls for converting quantitative restrictions on rice imports into tariffs (USDA-FAS, 2019b). The preliminary import figures for 2019 show a sharp increase in rice imports by the country.

Prices in the global rice market have remained soft in 2019. With the exception of Thailand, Asian long grain rice prices in marketing year 2019 have remained low and very competitive relative to rice from other origins. To illustrate, from August 2019-February 2020 the average export price (FOB) for Vietnam's 5% broken averaged \$345 per metric ton (mt), relative to \$420 per mt for Thai 100%B, and \$567 per mt for U.S. long grain #2, 4% (USDA-ERS, 2020). The strength of Thai rice export prices vis-à-vis other Asian origins is striking and unsupported by current market conditions, and led to a sharp decline of Thai exports in 2019.

Over the next decade, the international price of long grain rice, represented by the Thai 100% B FOB, is projected to increase steadily by 0.77% annually in nominal terms, as total global net trade grows at 1.73% annually over the same period. On average, the nominal international reference price for long grain rice is projected to increase from \$404 per mt (2016-18 average) to \$439 per mt in 2029. However, in real terms the international price of long grain rice is projected to decrease in the coming decade (Table 5 and Figure 7).

Over the same period, the international price for medium grain rice is projected to remain high, ranging from \$782 per mt (2016-18 average) to \$843 per mt in 2029 (Table 5), as export supplies continue to be limited by water-related production constraints in Australia and Egypt which are traditional medium grain suppliers. Egypt has a water-related policy of restricting rice planted area with penalties for policy-breakers, but there are indications that the local rice farmers continue to plant rice as evidenced by the historical data on planted area (USDA-FAS, 2020b). Depending on how this plays out into the future, this situation could potentially present market opportunities for U.S. medium grain rice producers.

Margins between U.S. and Asian Rice Prices

Long grain prices in the Western Hemisphere, represented by the U.S. No. 2-4% FOB Gulf remain substantially higher than Asian long grain rice prices. The average U.S. price margin over the last decade (2010-2019) was \$93 per mt, with values reaching as high as \$181 per mt in 2017 and \$167 in 2018. Over the next decade, the margin is projected to average \$149 per mt, with values increasing from \$143 per mt (2016-18 average) to \$160 per mt in 2022 before narrowing steadily thereafter, reaching \$122 per mt by 2029. We expect that convergence of the two prices is not likely since U.S. rice exports benefit greatly from preferential access in its core rice

markets (e.g., Mexico, Central America, and Colombia). Moreover, despite a favorable margins in the last several years, Asian rice has not permeated Western Hemisphere markets as we would have expected, with the exception of Vietnamese rice in Cuba, which is traded more along political than economic terms.

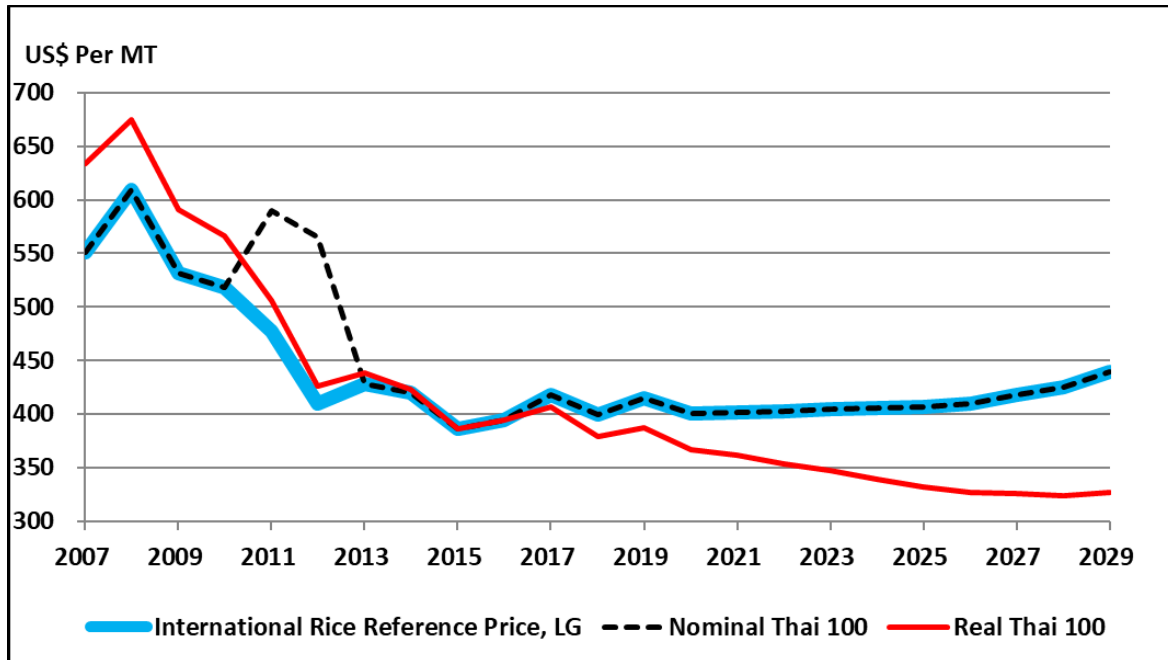


Figure 7. Historical and projected long grain rice world reference price, USD per mt, 2007–2029.

Growing Segmentation in Rice Markets

Segmentation by rice types is a long-standing characteristic of the global rice economy, and it is expected to deepen as the global population becomes more urban and income levels increase, thus increasing consumer awareness about different rice types and qualities. The baseline projections in this report indicate that this segmentation is expected to continue as reflected by the price relationships between medium and long grain rice prices. The limited demand substitution between medium grain and long grain rice provides support for a sustained large margin.

Overview of Global Rice Supply and Demand

Rice is the most important food crop in the developing world and the staple food for more than half of the world's population, accounting for approximately 20% of the daily caloric consumption globally (IRRI, 2013). Unlike the average annual baseline prices projected in Figure 7, actual world rice prices could be highly volatile from year-to-year and even within years, due to a number of reasons. Rice has price inelastic supply and demand throughout much of Asia, where it is the dominant food staple. As a result, supply and/or demand shocks could result in disproportionate price responses.

Furthermore, while rice is the primary staple for half the world’s population, it is thinly traded, which means that there is limited trade flow to address quantitative shocks, particularly in rice importing countries, forcing the adjustment burden on prices. While the proportion of rice traded as a percent of global production is increasing, still only 8.7% of rice production is traded as opposed to 15.3% for corn, 23.5% for wheat, and 14.5% for coarse grains (WASDE, 2020).

India, Thailand, Vietnam, Pakistan, and the U.S. dominate rice exports with a combined share of 76.6% of total world trade in 2016-18. India’s sustained rice production growth in the last decade allowed the country to overtake Thailand as the top global rice exporter in the last several years. However, there has been growing export competition in the last decade from Myanmar and Cambodia, which are projected to continue making inroads in the coming decade.

Figures 8 and 9 show the historical and projected paths of the world rice supply and use. Over the next decade, India and the China will remain the major players in the global rice economy given the sheer magnitude of their rice sectors. These two countries will have an average combined global share of 44.9% of total area harvested, 51.0% of total production, 48.6% of total consumption, 23.6% of total net trade, and 80.7% of total stocks. On average, the two countries combined are projected to account for 35.9% of the world population over the same period.

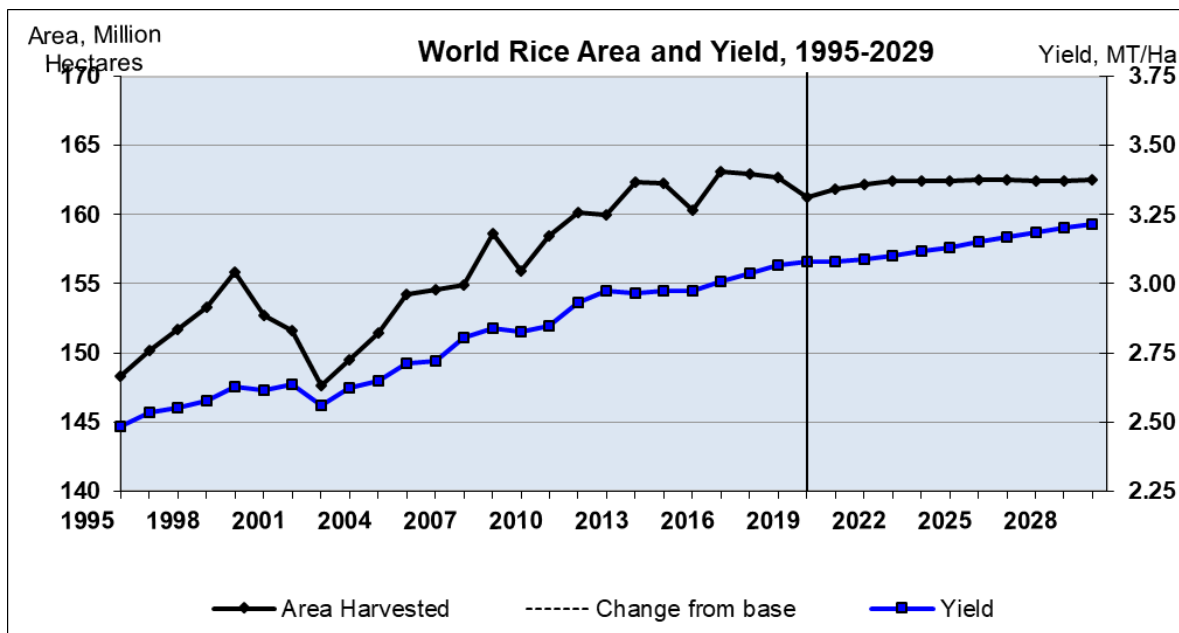


Figure 8. World rice harvested area and yield, historical and projected, 1995–2029.

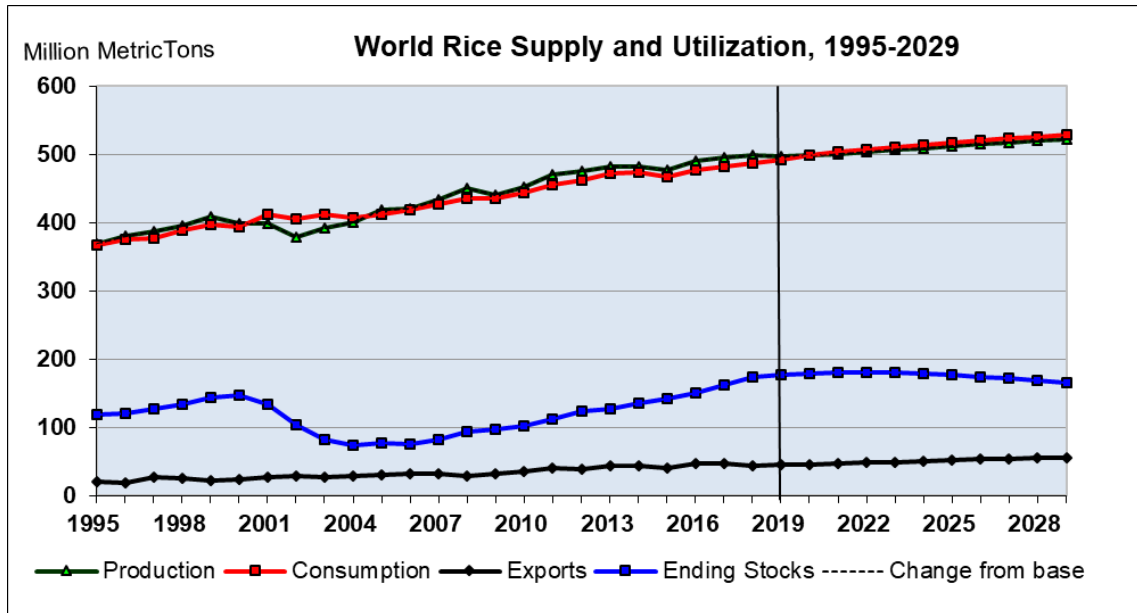


Figure 9. World rice production, consumption, trade and stocks, historical and projected, 1995–2029

Detailed Results of the Deterministic Baseline Analysis

Projections generated from the deterministic analysis by country and by region for the period 2019–2029 are presented in Tables 5 through 106. To serve as convenient reference, a list of the tables and groups of tables with corresponding descriptions is included below:

- Table 5: Summary of the projected *net trade* by country and international rice prices, Thai 100% B Long Grain, U.S. No. 2 Gulf Ports FOB, Long Grain export price, and the U.S. No. 2 California FOB Medium Grain export price which serves as the international reference price for medium grain;
- Table 6: Summary of the projected global rice supply and demand and stocks-to-use percent;
- Tables 7–70: Individual country supply and demand projections (production, consumption, stocks, and net trade);
- Tables 71–88: World regional (Africa, Asia, Western Hemisphere, Europe, and Oceania) total rice supply and demand projections with a sub-regional aggregate for countries of each region that are modeled individually in AGRM, and another sub-regional aggregate for the remaining countries of each region that are modeled as a group in AGRM;
- Tables 89–91: Projected ECOWAS rice supply and demand, presented separately to highlight the increasing importance of the region to the global rice economy;
- Table 92: Projected milled rice yield per hectare by country;
- Table 93: Projected per capita rice use by country;
- Table 94: Projected world and country rice *total trade* (as opposed to world rice *net trade* shown in Table 5);

- Table 95: Projected world and country long grain rice trade;
- Table 96: Projected world and country medium grain rice trade;
- Table 97: Projected AGRM world rice price with FAPRI wheat, corn, and soybean prices; and price relationships;
- Tables 98–100: Projected U.S. detailed total, long grain, and medium grain rice supply and use (rough basis, in English units); and
- Tables 101–106: Projected rice area, yield, and production of individual rice-producing states in the U.S.

Global Rice Trade

The total global rice trade is projected to expand by 9.6 mmt or a growth of 1.73% annually over the next decade, reaching 55.8 mmt in 2029 compared to 46.2 mmt average for the period 2016-18 (Table 5). On the exporters' side, the significant investment in production and processing capacity in the Mekong Delta in Vietnam, Cambodia, and Myanmar bodes well for these countries' increasing role as important global rice suppliers over the same period. As low-cost producers, these countries are well-poised geographically to supply the Chinese rice market.

While Thailand has experienced some weather-related challenges recently, the country is projected to recover over the next decade, and maintain its strong presence in the international rice market given its good infrastructural resources and concerted focus on developing branded high quality rice. However, the country is not expected to regain the top spot in the international market. Over the same period, India is expected to remain the leading rice exporter owing to its steady and impressive production growth.

There is renewed interest in the Vietnamese rice sector, with ongoing investments in rice breeding and milling aimed at improving the quality and sustainability of rice production in the country. Efforts are also centered on improving the resilience of rice production to climate change, and diversification of production into higher-value types such as fragrant and medium grain rice. Hence, Vietnam is expected to remain a reliable exporter in the projected period.

Over the same period, Myanmar and Cambodia are both expected to assume increasing roles as global rice suppliers. Myanmar's exports are projected to expand from 2.87 mmt (2016-18 average) to 3.81 mmt in 2029, supported by yield-based growth in production. Cambodia's exports, on the other hand, are projected to grow at 4.8% per year, reaching 2.12 mmt in 2029 from 1.27 mmt average in 2016-18, as both area and yield growth cause production to exceed consumption consistently. These projections are supported by the growing presence of China in Cambodia and Myanmar, both as an investor and a destination of rice exports, which is pushing up rice production and exports.

For the U.S., total exports over the next decade are expected to increase by 211 tmt, reaching 3.3 mmt in 2029; and imports will gain 62 tmt, totaling 908 tmt in 2029. For reference purposes, a detailed U.S. rice supply and use in English units, in rough rice equivalent, is presented in Table 89.

The U.S. has relied increasingly on favorable trade agreements to lock in preferences for its rice exports, but whether or not the U.S. rice sector can continue to rely on similar trade agreements into the future has become uncertain. The current administration has recently renegotiated the

North American Free Trade Agreement or NAFTA (now called United States-Mexico-Canada Agreement or USMCA) and managed to keep the same terms for rice included in NAFTA. The USCMA was ratified by U.S. Congress; and signed into law on January 29, 2020.

On the import side, China, Nigeria, and the Philippines are expected to be the leading rice importers over the next decade. China will remain an important major rice importer, although its imports have substantially gone down recently as the country held auctions to dispose some of its old stock reserves. In February 2019, the World Trade Organization ruled in favor of a 2016 U.S. complaint that China has consistently exceeded its WTO agricultural subsidy limits (Miles and Daly, 2019; and Brink, et al., 2019). Such ruling can have significant implications for the Chinese and global rice markets, including China’s rice imports, in the coming years.

China has slowly opened market access to India, Japan, and recently the United States for milled rice. Currently, some countries have bilateral phytosanitary protocols on milled rice with China, including Cambodia, India (both Basmati and Non-Basmati) Japan, Laos, Myanmar, Pakistan, Thailand, Uruguay, Vietnam, Taiwan, and the U.S. (USDA-FAS, 2019c).

In general, expansion in imports is associated with a combination of relatively fast population growth and lagging production relative to consumption. An example is Nigeria with imports expanding at 5.0% per year, driven by the 2.8% population-led growth in consumption that exceeds the 1.8% growth in output. The rest of the Western Africa and the Middle East show strong expansion in import demand.

Main Sources of Growth in Global Rice Trade

Exports

The share in total trade of the ten largest rice exporters increased from 90.3% in 2009/2010 to 93.4% in 2019/2020; and will remain relatively flat at 93.0% over the projection period.

Table 1 shows the major global rice exporters over the next decade with corresponding annual growth rates of trade. India and Thailand are projected to have the largest nominal growth in exports by the end of the projection period, 2.6 mmt and 2.1 mmt, respectively, while Cambodia and China will have the largest relative growth in exports, estimated at 4.8% and 4.4%, respectively. Pakistani exports are projected to decrease slightly.

Table 1. Major global rice exporters, volume in million metric tons and annual percent growth, 2016–2019 average vs. 2029.

Country	2016–18 Average	2029 Projected	Total Change	Annual Growth (%)
	Thousand Metric Tons			
Thailand	10,190	12,277	2,086	1.7%
China	1,664	2,678	1,014	4.4%
Cambodia	1,267	2,117	851	4.8%
India	11,417	13,990	2,573	1.9%
United States	3,127	3,338	211	0.6%
Myanmar	2,867	3,805	938	2.6%
Pakistan	4020	3844	-174	-0.4%
Vietnam	6,643	8,022	1,379	1.7%

The trend in the gap between total production and total consumption by country gives an indication of the competitive ability of a net rice-exporting country to expand its export supply (positive gap) as well as the potential growth in import demand (negative gap) of a net rice-importing country.

In last year’s baseline report (Durand-Morat, et al., 2019), the authors introduced the “*Rice Production-Consumption Index*” (*RPCI*) as another way to gauge the trade potential of a country by assessing the extent to which a country’s per capita rice production exceeds (i.e., positive means *surplus*) or lags (i.e., negative means *deficits*) per capita rice consumption. The *RPCI*, defined as a percent of per capita surplus/deficit, introduces a dynamic demographic dimension (population) into the equation that contributes to a better understanding of a country’s current and potential future rice trade position.

Table 2 uses the *RPCI* as indicator of the reliability and competitive ability of the same set of eight major rice-exporting countries (listed in Table 1) to expand rice exports into the future as a consequence of high per capita surplus. Based on the *RPCI* average value over the next decade, Pakistan will be a reliable exporter despite a projected decrease in net exports. Thailand and the U.S. are also reliable exporters, while India has the lowest *RPCI* among the top exporters. China’s value is the lowest at -1.1%. It is also interesting to note that in terms of the corresponding changes in average *RPCI* values from the past decade (2009–2019) to the projected period (2019–2029), Myanmar exhibits the biggest percent improvement, followed by Cambodia, Thailand, Vietnam, and India. Average values for the U.S., China, and Pakistan decline over the same period.

Table 2. Major rice-exporters’ *RPCI* in percent, 2009–2019 vs. 2019–2029.

Exporters	Per Capita Use, Kg		Per Capita Surplus (Deficit)		%RPCI	
	2009–19	2019–29	2009–19	2019–29	2009–19	2019–29
Thailand	156.07	158.79	129.73	141.31	83.1%	89.0%
China	100.08	99.52	3.48	-1.10	3.5%	-1.1%
Cambodia	253.56	262.55	72.07	98.31	28.4%	37.4%
India	73.70	72.98	8.11	8.81	11.0%	12.1%
United States	12.76	12.69	7.80	6.80	61.1%	53.6%
Myanmar	198.81	193.21	35.98	58.45	18.1%	30.3%
Pakistan	14.39	15.20	19.56	16.81	135.9%	110.6%
Vietnam	230.52	219.40	67.93	69.89	29.5%	31.9%

Imports

The share in total trade of the ten largest rice importers declined from 40.5% in 2009/2010 to 38.5% in 2019/2020 but will recover to 46.2% by the end of the next decade. China remains the largest rice importer over the baseline period, but because it continues to hold large rice stocks, its average annual imports of 3.6 mmt remains below its total Tariff Rate Quota (TRQ) level; and projected to decline over the same period. It is important to state that in our projections we are not enforcing the complete filling of the Chinese rice TRQ, and acknowledge that such outcome is possible in light of the WTO ruling regarding China’s administration of several TRQs, including rice.

In general, expansion in imports is associated with a combination of relatively fast population growth and lagging production relative to consumption in some countries. An example is Nigeria with imports expanding at 5.04% per year, driven by the 2.83% population-led growth in consumption that exceeds the 1.75% growth in output. The rest of Western Africa shows strong expansion in import demand. Supported by increasing population and growing income, the Middle East is another region with strong growth in rice imports.

Table 3 shows the major global rice-importing countries and regions with total increases in imports as well as the annual growth rates over the next decade. ECOWAS-14, the Middle East, and Nigeria are projected to have the largest nominal increases in imports. Similarly, ECOWAS-14, Nigeria, and the Philippines are expected to experience the largest relative growth in imports in the coming decade.

Table 4 also reports the *RPCI* for the major rice importers. The Middle East, ECOWAS-14, EU 28, Nigeria, and the Philippines have the largest per capita deficits over the next decade (2019–2029), suggesting they will be reliable importers in the coming decade. The *RPCI* values for Indonesia, and China are lower due to the downtrend in rice per capita use. Note that the per capita deficits in Indonesia, ECOWAS-14, and EU 28 increase over the two periods considered, with the rest exhibiting declines.

Table 3. Major global rice importers, volume in million metric tons and annual percent growth, 2016–2019 average vs. 2029.

Country	2016–18 Average	2029 Projected	Total Change	Annual Growth (%)
	Thousand Metric Tons			
ECOWAS-14	6,987	14,693	7,706	5.0%
Nigeria	2,133	3,663	1,529	5.0%
Middle East	3,678	5,271	1,593	2.3%
Indonesia	1,000	1,230	230	1.9%
Philippines	1,990	3,116	1,126	4.2%
China	4,500	3,853	-647	-1.4%
EU 28	1,982	2,217	234	1.0%

Table 4. Major rice-importers' *RPCI* in percent, 2009–2019 vs. 2019–2029.

Importers	Per Capita Use, Kg		Per Capita Surplus (Deficit)		%RPCI	
	2009–19	2019–29	2009–19	2019–29	2009–19	2019–29
ECOWAS-14	71.65	89.61	-33.70	-45.21	-47.0%	-50.5%
Nigeria	33.94	36.13	-13.09	-13.15	-38.6%	-36.4%
Middle East	40.72	39.34	-27.72	-25.17	-68.1%	-64.0%
Indonesia	149.52	138.27	-6.65	-3.66	-4.4%	-2.6%
Philippines	131.59	132.98	-18.51	-24.13	-14.1%	-18.1%
China	100.08	99.52	3.48	-1.10	3.5%	-1.1%
EU 28	7.84	8.80	-3.18	-4.13	-40.6%	-47.0%

Rice Harvested Area and Production

Global rice output is projected to continue expanding over the next decade, driven by the use of higher-yielding varieties and adoption of improved production technologies—in line with more focused self-sufficiency programs of the major consuming countries. World rice production expands by nearly 27.8 mmt over the next decade, equivalent to an annual growth of 0.5%, reaching 522.8 mmt in 2029 (Table 6). World rice harvested area is down slightly over the same period driven by area declines in China (-1.94 million hectares) and Vietnam (-445 thousand hectares) that more than offset area expansion in other countries.

By volume, about 29% of the expected net growth in global rice output over the next decade will come from India, and nearly 55% from seven countries that include Bangladesh, Indonesia, Thailand, Myanmar, Vietnam, Cambodia, and the Philippines. In contrast, rice production in China is projected to decline by 6.9 mmt, followed by minor production loses in other countries such as Brazil, Japan, and South Korea. Total U.S. rice production, on the other hand, is projected to increase by a total of 215 thousand metric tons (tmt) over the same period, equivalent to an average annual growth of 0.3% (Table 7).

Figure 10 shows that China and India will continue to account for more than half of total world production with the rest accounted for by Indonesia, Bangladesh, Vietnam, Thailand, Myanmar, the Philippines, and rest of the world (ROW).

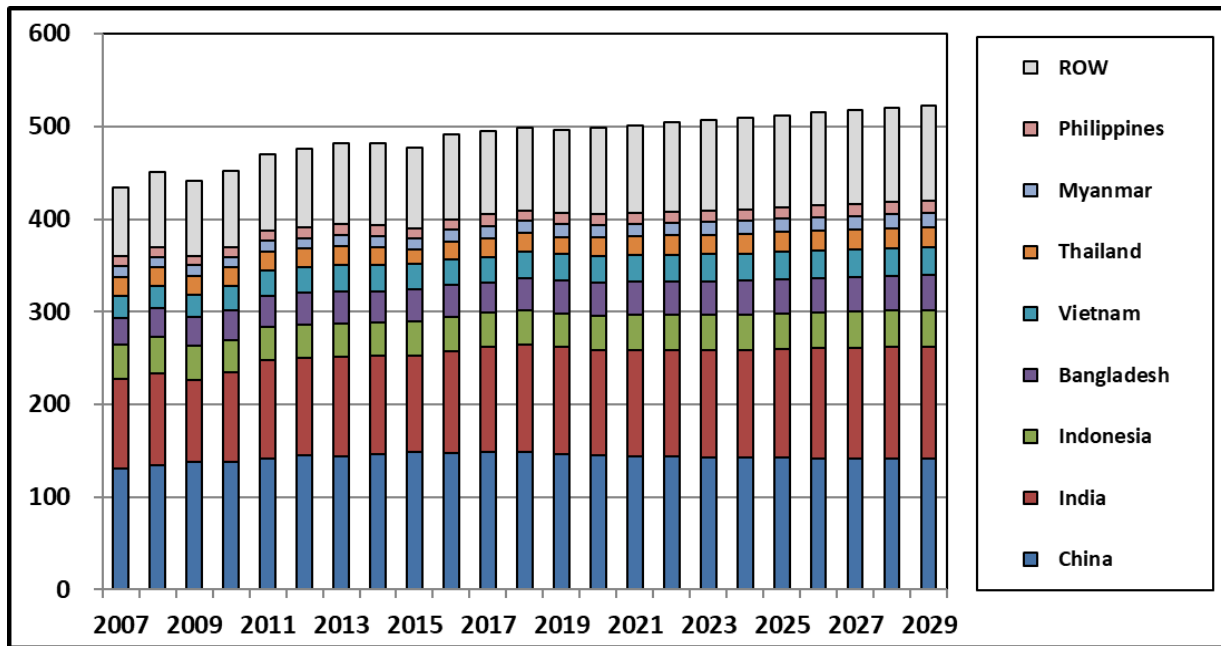


Figure 10. Top world rice-producing countries, historical and projected, million metric tons, 2007–2029.

Rice Domestic Consumption

Over the next decade, world rice consumption will remain driven by population growth as global average per-capita rice consumption declines. In some Asian countries such as Japan, Taiwan, China, and South Korea, rising incomes continue to dampen per-capita rice demand.

Demographic trends also weaken rice demand, as aging populations in many European and Asian countries, and increased health-consciousness cause a shift in preferences away from carbohydrates and towards protein-based diets.

Over the next decade, global rice consumption is projected to increase by 47 mmt, reaching nearly 529 mmt in 2029, which is equivalent to an annual growth of 0.85% (Table 6 and Figure 11). About 20% of the net growth in global rice consumption is accounted for by India; 18% by the three countries of Bangladesh, the Philippines, and Indonesia combined; and 23% by ECOWAS. The U.S. rice total consumption increases by 64 tmt over the same period, reaching 4.4 mmt in 2029 or an annual growth of 0.13%; which comes solely from population growth as per capita use declines by 0.6% per year.

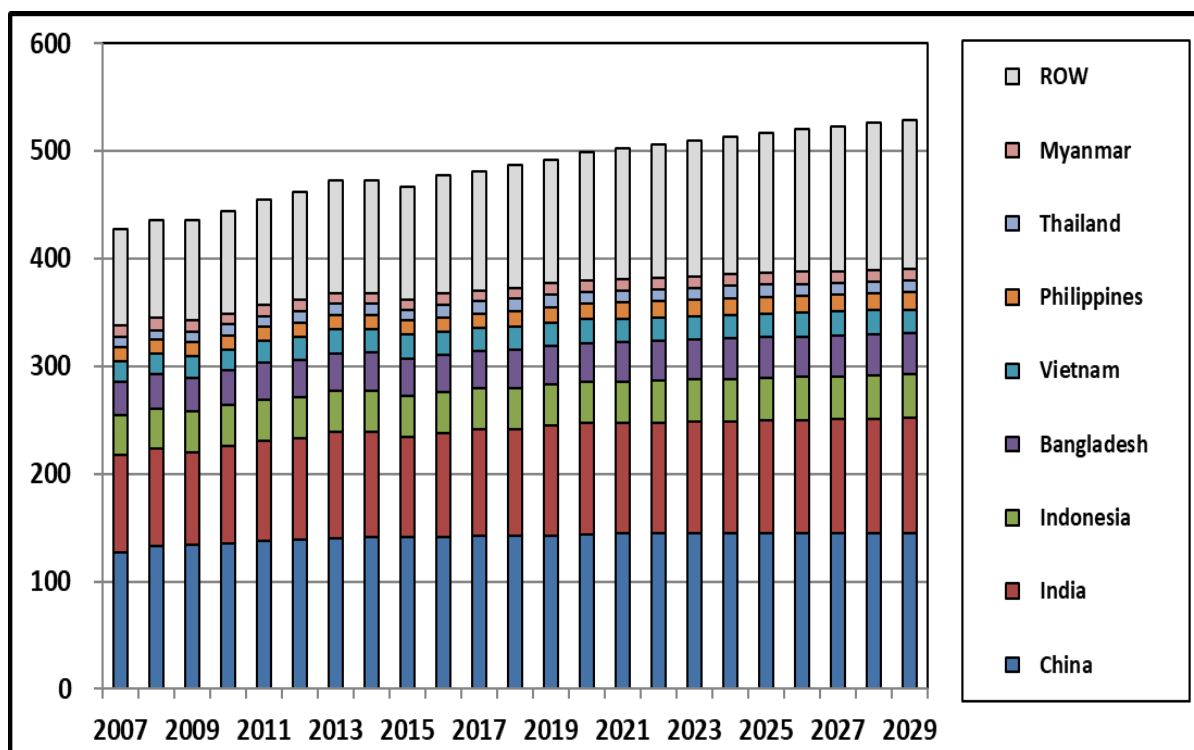


Figure 11. Top world rice-consuming countries, historical and projected, million metric tons, 2007–2029

Rice Global Stocks

Global rice stocks are projected to tighten slightly over the next decade, with stocks-to-use ratio projected to decline from about 0.26 in 2018 to 0.24 in 2029, reflecting the relatively faster growth in total global rice consumption relative to the gains in total global rice production.

Global rice stocks are projected to increase by 3.0 mmt over the same period; with 8.0 mmt combined increase in stocks of India, Vietnam, and Myanmar, and a decline of 4.0 mmt in China. China is projected to account for around 62% of the global rice stocks by the end of the projected period (Figure 12).

We project that the share of rice stocks in the hand of the traditional rice exporters will remain stable over the next decade. The average combined share in global stocks of the five major

exporters (Thailand, India, Vietnam, Pakistan, and the U.S.) declined from 31.5% in 2009 to 20.7% in 2019 and is projected to be relatively stable around 22% over the projection period.

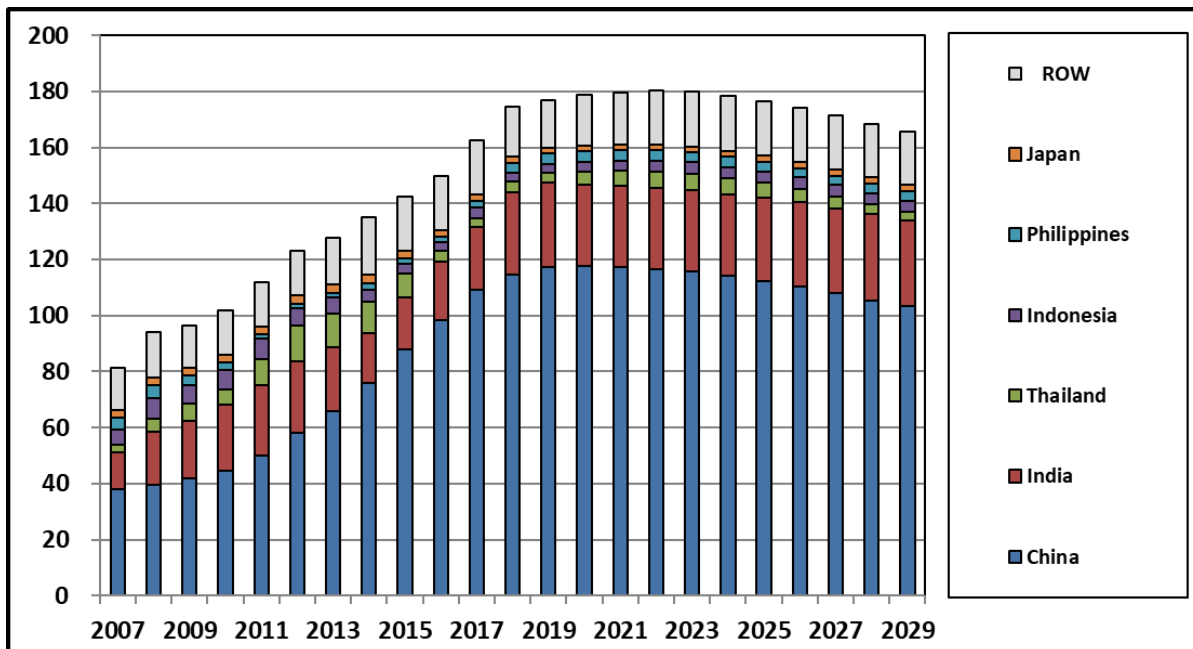


Figure 12. Top-ranking countries in rice ending stocks, historical and projected, million metric tons, 2007–2029.

Rice Supply and Demand by World Region

The summary results for the five world regions in AGRM are presented in Tables 71–91. There are three tables for each region: the first one is the total for the region, the second is the sum of individually modeled countries in the region, and the third consists of the remaining countries in the region that are modeled as a group.

A more detailed look at the regional projections is useful, as it provides a better understanding of the geographical dynamics and the relative importance of the role each region plays in the global rice economy.

Africa

Over 73% of the net growth in global rice imports over the next decade will come from Africa, with the 15-member ECOWAS accounting for 64% of the growth in global imports.

Table 71 shows that Africa’s total rice production is projected to grow by 2.69% per year, driven by both growth in area (0.99%) and yields (1.68%). This expected productivity improvement is supported by the availability of increased research funding from public and private organizations, more focused efforts by the Africa Rice Center and the International Rice Research Institute (IRRI), and a possible expanded distribution and adoption of improved rice varieties like the New Rice for Africa (NERICA) cultivars.

The region’s total rice consumption grows by 3.63% per year, as population grows by 2.57% and average per capita use gains 1.04% annually. This increased consumption is supported by 1.16%

annual growth in real per capita income.⁴ Net imports of the region are projected to expand by 10.1 mmt over the next decade, equivalent to a growth rate of 4.7% per year—reaching nearly 25.6 mmt by 2029 from an average of 15.4 mmt from 2016–2018.

Table 72 presents the results for the group of individually modeled African countries in AGRM. This group is expected to increase total rice production by 2.75% per year, as area and yield expand annually by 1.11% and 1.63%, respectively. Total consumption of this group gains 3.72% annually, driven by 2.56% growth in population, 1.07% growth in per capita use, and 1.24% growth in real per capita income.

Table 73 shows that the “Other Africa” region (or the rest of African countries that are modeled as a group) contracts its rice output by -0.93% per year, mainly resulting from -1.38% decline in area as yield increases by 0.46%. Total consumption of this group expands at 2.49% per year, solely supported by a 2.58% population growth as per capita use declines slightly by 0.08%. Real per capita income grows by 1.02% annually.

ECOWAS

Over the next decade, production of this 15-country region (Tables 89–91) in Africa is projected to grow by 2.74% per year, which is accounted for by a 1.02% gain in harvested area and a 1.70% yield improvement. Consumption expands by 3.81% per year, driven by 2.80% population growth, 1.00% gain in per capita use; despite a slow 0.79% income growth per year. Net imports are projected to expand by 6.5 mmt over the next decade, equivalent to a growth rate of 5.1% per year—reaching 15.4 mmt by 2029.

Nigeria is the main player in the ECOWAS region’s projected fast-growing rice industry over the baseline period. The country accounts for 23% of the region’s volume growth in net imports, as the country’s domestic use continues to exceed domestic supply.

Nigeria also accounts for 37% of the region’s gain in rice area harvested and 23% of the increase in rice output thanks to an impressive 1.75% annual expansion in production, supported by gains of 0.97% in area and 0.76% in yield. Furthermore, the country contributes 23% of the region’s volume growth in consumption, as the country’s demand expands 2.83% annually, mainly due to the 2.48% population growth as per capita use increases only slightly.

Americas

Total rice production in the Western Hemisphere (Table 74) grows at 0.50% per year over the next ten years, which comes solely from a 0.77% gain in yield, as area contracts by -0.26%. Total consumption increases at 0.90% annually, a combined effect of 0.84% population growth, a slight 0.05% gain in per capita use, and 1.32% growth in real per capita income. Net exports from the region are projected to decline by 1.1 mmt over the baseline period.

The group of individually modeled Western Hemisphere countries (Table 75) is projected to grow total rice output by 0.45% per year, solely from the 0.75% yield growth as area declines by -0.30%. Total rice consumption of this group gains 0.83% annually, mainly from population growth of 0.79% as per capita use gains only slightly. Real per capita income grows at 1.31% per year.

⁴ Real per capita income is computed by dividing total real gross domestic product by population.

Total rice production of the “Other Western Hemisphere” region modeled as a group (Table 76) increases by 1.49% per year, mainly from the 1.39% yield gain, as area improves only slightly by 0.10%. Total consumption of this group grows at 1.77% per year, which comes from the 1.08% population growth and 0.69% gain in per capita use. Real per capita income grows by 2.03% annually.

Asia

Over the next decade, total rice production in Asia (Table 77) increases by 0.38% per year, solely accounted for by yield, as area declines slightly (–0.12% per year). Total Asian rice consumption grows by 0.54% per year based solely on population growth since per-capita consumption is projected to decline -0.28% annually.

Rice is an inferior good in many Asian countries, and the relatively strong projected growth of 3.42% in real per capita income has a dampening effect on rice consumption. Over the same period, net exports from the region are projected to expand by 6.6 mmt, equivalent to a growth rate of 2.9% per year—reaching nearly 24.5 mmt by 2029 from an average of 17.9 mmt from 2016–2018.

Similarly, the group of individually modeled Asian countries (Table 78) is projected to grow total rice production by 0.37% annually, solely coming from an increase in yield, as area declines by -0.13%. Total rice consumption of this group grows by 0.52% annually, all contributed by a 0.77% population growth, as per capita use declines by -0.25% and real per capita income expands at 3.53% annually.

The net growth of total rice output of the “Other Asia” region modeled as a group (Table 79) is 0.82% annually, with both area and yield gaining 0.27% and 0.56% per year, respectively. Total consumption of this group grows at 1.46% per year, solely from a 1.57% population growth, as per capita use declines by -0.12%. Real per capita income grows at 1.73% per year, which is relatively slower than that of the group of modeled Asian countries.

Europe

Total rice production in Europe (Table 80) grows at 0.64% per year, which is accounted for by a growth of 0.52% in yield and 0.12% in area. Total consumption increases at 0.87% annually, solely from 0.97% gain in per capita use, as population declines slightly (–0.11%). Real per capita income is up 1.44% per year. Net import demand of the region is projected to increase at 1.2% (equivalent to 237 tmt) annually, reaching nearly 2.0 mmt by 2029.

Reflecting the performance of the region, rice production for the group of individually modeled European countries (Table 81) is projected to grow by 0.64% per year, of which 0.52% comes from improvement in yield and 0.12% from increased area. Total consumption of this group gains 0.75% annually, mainly accounted for by 0.78% growth in per capita use, as population declines slightly (–0.05%). Real per capita income of this group grows at 1.44% per year.

Total rice production of the “Other Europe” region modeled as a group (Table 82) grows by 0.66% per year, as yield and harvested area grow by 0.59% and 0.07% per year, respectively. Consumption of this group grows at 3.86% per year, with the high 4.07% gain in per capita use being offset by a -0.21% decline in population. The real per capita income of this group grows strongly at 2.05% per year.

Oceania

Tables 83 through 85 show the results for Oceania, which mainly consists of Australia. Total rice production expands by 3.13% per year, accounted for by 1.38% gain in area harvested and 1.38% gain in yield. Total consumption grows 1.04% annually, which comes solely from the 1.34% growth in population, as per capita use declines by -0.30%. Real per capita income grows at 1.21% annually. Given Australia's persistent water-related constraints in rice production, the region is projected to remain a relatively small net exporter over the projection period.

World

Presented in Tables 86 through 88 are the sum total and average for the five AGRM-designated world regions discussed above.

Results of Stochastic Baseline Analysis

The detailed results of the stochastic analyses for selected prices and trade are presented in Figures 13 through 35. To show the direction and dispersion of the stochastic outcome distribution, four selected outcome items (stochastic mean, 10th percentile, 90th percentile, and the coefficient of variation) for selected variables are presented. Intuitively, the gap between the two percentiles (10th and 90th) indicates the degree of volatility or risk associated with the variable of interest. As the gap widens, there is an expected increase in volatility, while a narrowing gap indicates decreased volatility.

Another measure of dispersion used is the coefficient of variation (C.V.), which shows the extent of variability of data points in relation to the stochastic mean. A lower C.V. indicates less variability or risk. In this current report, an additional line representing the deterministic mean is included in each stochastic chart, for reference purposes.

The interpretation of the information projected in each of the charts is similar in principle. Hence, for space consideration, only one representative chart (Figure 13) will be discussed. Figure 13 shows the long grain rice international reference price. For 2020, while the deterministic mean price generated by the baseline model is \$400 per mt (Table 5), the stochastic distribution indicates that 10% of the time the average price will be higher than \$492 per mt and 10% of the time lower than \$316 per mt; with stochastic mean at \$392 per mt.

The computed C.V. for 2020 is 16.7%, which declines over the rest of the projection period, reaching 8.2% by 2029. This feature of the stochastic analysis provides useful information, as it indicates how the possible outcomes are distributed, thus providing a better understanding of the dynamics of the global rice market.

Summary and Conclusions

Based on the results from model simulations, over the next decade, the overall rice story is that global trade and prices are projected to grow modestly, as total production lags total consumption and the stock to use ratio declines. Expansion in global rice production will come mainly from technology-driven yield improvements and production subsidies in many countries, as area for expansion remains constrained in general. Population remains the main driver of global rice consumption growth, as average per capita use declines slightly.

India and Thailand are projected to remain the first and second largest rice exporters over the next decade. Thailand recovered from the price support policies maintained between 2011 and 2014 that undermined its export competitiveness and is projected to remain a large and reliable exporter over the next decade. However, India will be the top global exporter with its sustained production growth which started last decade and is expected to continue into the future maintaining a steady excess export supply.

India, Thailand, Vietnam, Pakistan, Myanmar, and the U.S. will be the leading rice exporters in the international rice market over the next decade, accounting for 80% of global net trade. China, Western Africa (ECOWAS, particularly Nigeria), the Middle East, and the Philippines will remain the major global rice importers, as population growth in China and population growth and per-capita consumption in Africa and the Middle East continue to drive consumption. By sheer magnitude of volume, China and India will remain the dominant producers and consumers of rice in the world.

According to the *RPCI*, Thailand, Pakistan, and the U.S. are projected to be the most reliable rice export suppliers in the international market, with Myanmar and Cambodia having the best potential to grow rice exports in the next decade. On the other hand, the Middle East, ECOWAS-14, and EU 28 will remain highly import-dependent; and the Philippines will be more import-dependent over the same period.

Under the assumption of normal average weather, with global trade continuing to grow as deficit rice-consuming countries become more attuned to food security issues, an environment of a reasonable, steady increase in global rice prices will likely prevail.

As in any other enterprise, however, there are risks involved in the rice industry due to the uncertainties of weather, domestic policies, political developments, and other unexpected events. Actual market outcomes usually deviate from average estimates. Hence, a stochastic analysis is included in this report and indicates the probable upper and lower bounds (confidence intervals) of future possible distribution of prices and trade.

Some of the uncertainties in the rice market that could most significantly affect the baseline projections in this report include the following issues:

- India's reliability as the leading exporter, given issues on water-scarcity and weather patterns;
- Long-term impact of the salinity problem in countries such as Vietnam and Bangladesh;
- Future actions by China as it sells its old rice stockholdings; and re-emerges as both a major importer and a major exporter of rice;
- Persistently high Western Hemisphere prices relative to Asian prices;
- Level of success of the Sub-Saharan Africa and Southeast Asian efforts to attain and sustain targeted productivity levels and self-sufficiency goals;
- Prevalent government subsidies and other distortionary domestic policy interventions in some countries, primarily in Asia, and the potential impact of enforcing compliance with multilateral commitments (WTO);

- Unpredictable water availability for rice production in Australia, Egypt, and California that can directly affect the medium grain rice segment; and indirectly affect the other segments of the rice market;
- The possibility of occurrence of extreme weather-related damages in major rice-producing countries; and
- The potential impact of the new U.S. trade policies under the current administration.

Depending on the developments on these foregoing issues going forward, the baseline projections presented in this report can serve as benchmark for analyzing the potential impacts of specific change scenarios on rice supply, demand, and prices.

Lastly, the authors hope that the information contained in this report could serve as useful planning inputs for various domestic and international stakeholders in the rice industry, as well as other related businesses.

Estimates of the Deterministic Baseline Analysis

Table 5. World Rice Net Trade by Country and Prices, 2016–2029

	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Net Exporters	(Thousand Metric Tons)													
Argentina	338	419	362	322	370	330	309	322	327	330	331	334	333	336
Australia	65	68	-130	-280	-73	-34	-1	32	72	86	94	110	121	122
Cambodia	1,130	1,280	1,330	1,380	1,463	1,492	1,526	1,646	1,706	1,845	1,923	1,976	2,037	2,097
Lao PDR	-11	32	-150	0	13	20	30	47	60	72	81	95	114	139
Egypt	-2	-37	-880	-200	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100
India	11,710	12,041	10,500	11,800	11,721	11,748	11,757	11,791	11,971	12,434	13,008	13,546	13,940	13,990
Myanmar	3,340	2,740	2,490	2,590	2,630	2,809	3,070	3,263	3,394	3,454	3,504	3,608	3,685	3,795
Pakistan	3,538	4,011	4,500	4,400	4,099	4,112	4,030	3,984	3,928	3,846	3,779	3,786	3,808	3,844
Thailand	11,365	10,806	7,650	7,250	7,513	8,487	9,236	9,649	10,326	10,759	11,235	11,658	11,879	12,027
United States	2,900	1,890	2,051	2,156	2,217	2,224	2,315	2,377	2,396	2,390	2,390	2,406	2,414	2,429
Uruguay	950	754	785	775	814	828	850	863	877	885	894	899	903	907
Vietnam	5,988	6,090	6,450	6,600	6,244	6,375	6,581	6,803	6,869	6,952	7,184	7,347	7,502	7,622
Brazil	216	590	-100	-500	-576	-613	-621	-628	-655	-674	-694	-717	-703	-678
Paraguay	535	649	708	698	663	702	739	781	811	839	863	882	893	903
Guyana	431	455	414	500	502	583	627	664	697	721	751	777	802	827
Total Net Exports *	42,493	41,788	35,980	37,491	37,500	38,962	40,349	41,493	42,680	43,841	45,241	46,607	47,628	48,261
Net Importers														
Bangladesh	71	3,196	396	56	343	542	693	702	761	522	528	533	579	516
China	4,495	4,114	-100	-900	-86	295	575	725	797	877	957	1,029	1,106	1,175
Brunei	41	36	50	50	51	52	52	53	54	55	56	57	58	59
Cameroon	575	625	675	700	722	721	731	758	781	811	841	869	901	946
Canada	362	373	400	400	403	408	414	421	428	437	445	453	460	467
Hong Kong	334	326	345	350	361	366	372	379	385	392	399	405	411	417
Colombia	144	135	149	180	185	184	177	171	171	170	181	186	192	197
Cote d'Ivoire	1,230	1,290	1,250	1,250	1,382	1,440	1,520	1,586	1,670	1,780	1,890	2,020	2,145	2,226
EU-28	1,522	1,657	1,780	1,750	1,719	1,725	1,736	1,751	1,766	1,772	1,790	1,804	1,818	1,825
Ghana	600	780	900	950	1,017	1,023	1,060	1,063	1,087	1,129	1,184	1,229	1,264	1,296

Table 6. Continued.

	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Guinea	530	620	700	800	827	790	741	720	729	754	760	778	747	719
Indonesia	348	2,348	298	998	1,213	1,114	1,077	1,039	1,058	994	1,136	1,110	1,231	1,228
Iran	1,400	1,200	1,200	1,150	1,327	1,392	1,450	1,483	1,514	1,538	1,565	1,591	1,645	1,672
Iraq	1,070	1,130	1,200	1,150	1,154	1,160	1,177	1,201	1,199	1,203	1,224	1,259	1,294	1,325
Japan	659	626	625	620	617	617	617	617	617	617	617	617	617	617
Kenya	650	675	750	775	858	901	950	1,004	1,079	1,149	1,213	1,277	1,309	1,353
Liberia	310	350	370	400	403	397	392	404	418	434	447	463	476	483
Malaysia	899	780	950	970	992	893	867	869	864	860	860	854	846	830
Mali	200	230	300	325	334	311	317	367	428	523	598	715	810	904
Mexico	785	711	730	765	784	784	801	816	836	861	877	903	916	932
Mozambique	715	650	620	730	725	757	795	826	883	941	1,001	1,029	1,059	1,089
Nigeria	2,500	2,000	1,900	1,800	2,285	2,460	2,700	2,920	3,077	3,275	3,416	3,545	3,623	3,663
Philippines	1,100	1,300	3,570	2,700	2,644	2,565	2,628	2,639	2,695	2,746	2,792	2,991	3,051	3,116
Saudi Arabia	1,195	1,290	1,350	1,375	1,423	1,452	1,486	1,518	1,552	1,588	1,626	1,663	1,700	1,737
Senegal	1,090	1,090	1,140	1,190	1,197	1,259	1,341	1,414	1,508	1,568	1,634	1,704	1,798	1,879
Sierra Leone	370	350	400	450	408	393	381	382	385	386	390	398	406	414
Singapore	323	287	330	300	328	329	330	331	334	336	337	337	338	337
South Africa	866	962	898	925	940	959	976	994	1,008	1,027	1,040	1,058	1,070	1,082
South Korea	407	334	306	355	359	409	409	409	409	409	409	409	409	409
Taiwan	105	41	70	70	76	76	76	76	76	76	76	76	76	76
Tanzania	270	210	220	240	320	417	620	743	829	925	960	1,019	1,016	1,013
Turkey	223	292	175	185	195	189	194	187	183	180	177	176	171	168
Other Africa	2,517	2,397	2,586	2,653	3,128	3,180	3,186	3,197	3,167	3,302	3,399	3,473	3,492	3,465
Other Americas	244	249	168	233	341	280	259	295	292	318	338	350	331	312
Other Asia	1,545	1,472	914	1,120	2,107	2,419	2,392	2,394	2,372	2,386	2,378	2,349	2,219	2,112
Other Europe	114	101	120	120	147	157	161	163	166	169	172	174	176	177
Other Oceania	49	52	50	50	52	53	54	56	57	58	59	59	60	61
Ecowas 7	1,892	2,151	2,277	2,367	2,539	2,758	2,934	3,106	3,315	3,449	3,563	3,667	3,763	3,862
Madagascar	299	557	350	400	503	585	596	615	609	637	649	657	664	673
Malawi	15	15	15	15	17	19	23	27	31	36	40	44	48	53
Zambia	10	10	10	10	11	12	15	17	18	19	20	22	23	25

Table 7. Continued.

	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Rwanda	40	40	40	40	42	42	45	47	48	48	48	50	52	55
Uganda	75	70	85	95	103	113	126	139	154	177	205	227	244	259
Cuba	524	435	550	600	600	594	594	590	590	594	598	600	597	587
Costa Rica	155	129	152	151	160	159	162	164	166	169	170	172	174	176
Dominican Republic	31	9	20	20	9	14	16	18	24	25	30	36	42	47
Guatemala	97	88	100	104	107	109	111	114	118	121	125	128	132	136
Honduras	123	102	147	157	172	179	190	194	200	205	211	217	225	232
Nicaragua	89	63	92	104	103	96	93	89	88	87	86	85	84	82
Panama	66	110	80	130	137	114	106	106	108	110	113	115	117	119
Chile	136	173	165	175	183	167	165	165	167	171	176	181	186	192
Peru	180	318	184	270	280	265	238	215	207	199	191	184	178	171
Haiti	470	494	470	500	501	505	513	522	531	541	549	558	567	575
Venezuela	310	376	550	480	518	498	503	513	530	547	571	592	615	637
Sri Lanka	501	486	15	15	-82	-26	-29	-35	-27	-18	-22	-20	-21	-28
Residual	7,622	1,883	2,893	4,623	316	288	243	211	172	158	147	129	117	116
Total Net Imports	42,493	41,788	35,980	37,491	37,500	38,962	40,349	41,493	42,680	43,841	45,241	46,607	47,628	48,261
Prices	(U.S. Dollars per Metric Ton)													
International Reference Price (Nominal)	394	418	399	415	400	401	402	405	406	407	410	418	425	439
Real International Reference Price (2015/17=100)	394	407	379	387	367	361	353	347	339	332	327	326	324	327
U.S. FOB Gulf Ports**	489	599	552	575	559	560	562	563	563	562	561	557	560	561
U.S. No. 2 Medium FOB CA	611	868	866	820	856	853	852	849	848	847	845	844	842	843

* Total net exports are the sum of all positive net exports and negative net imports.

** FOB=Free on Board

Table 6. World Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	163,107	162,958	162,671	161,286	161,865	162,156	162,396	162,458	162,476	162,507	162,511	162,477	162,469	162,503
	(Metric Tons per Hectare)													
Yield	3.01	3.04	3.07	3.08	3.08	3.09	3.10	3.12	3.13	3.15	3.17	3.18	3.20	3.22
	(Thousand Metric Tons)													
Production	490,996	494,797	499,161	496,666	498,329	501,081	503,975	506,462	508,779	512,068	514,832	517,423	520,110	522,831
Beginning Stocks	142,422	149,946	162,638	174,386	177,051	178,763	179,778	180,403	180,022	178,448	176,615	174,287	171,515	168,557
Domestic Supply	633,418	644,743	661,799	671,052	675,380	679,845	683,753	686,865	688,801	690,515	691,446	691,710	691,625	691,388
Consumption	477,025	481,568	486,730	491,508	499,310	502,870	506,216	509,756	513,322	516,898	520,183	523,252	526,151	528,843
Ending Stocks	149,946	162,638	174,386	177,051	178,763	179,777	180,402	180,022	178,448	176,614	174,287	171,514	168,557	165,643
Domestic Use	626,971	644,206	661,116	668,559	678,073	682,647	686,618	689,778	691,770	693,512	694,470	694,767	694,708	694,486
Total Trade	47,274	47,237	44,142	45,590	45,269	46,660	48,131	49,349	50,486	51,630	53,006	54,328	55,264	55,801
	(Percent)													
Stocks-to-Use	23.92	25.25	26.38	26.48	26.36	26.34	26.27	26.10	25.80	25.47	25.10	24.69	24.26	23.85

Table 7. U.S. Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	1,253	961	1,178	1,000	1,096	1,097	1,090	1,086	1,081	1,075	1,067	1,057	1,049	1,047
	(Metric Tons per Hectare)													
Yield	5.68	5.89	6.03	5.86	6.01	6.07	6.13	6.18	6.24	6.30	6.36	6.42	6.48	6.54
	(Thousand Metric Tons)													
Production	7,117	5,659	7,107	5,864	6,586	6,660	6,682	6,711	6,740	6,770	6,786	6,785	6,799	6,854
Beginning Stocks	1,475	1,462	933	1,424	909	960	1,154	1,280	1,347	1,360	1,332	1,284	1,242	1,188
Domestic Supply	8,592	7,121	8,040	7,288	7,495	7,620	7,836	7,991	8,087	8,130	8,118	8,069	8,041	8,042
Consumption	4,230	4,298	4,565	4,223	4,251	4,239	4,239	4,265	4,328	4,405	4,441	4,419	4,436	4,434
Ending Stocks	1,462	933	1,424	909	960	1,154	1,280	1,346	1,360	1,332	1,284	1,242	1,188	1,177
Domestic Use	5,692	5,231	5,989	5,132	5,211	5,393	5,519	5,611	5,688	5,737	5,725	5,660	5,624	5,611
Net Trade	2,900	1,890	2,051	2,156	2,217	2,224	2,315	2,377	2,396	2,390	2,390	2,406	2,414	2,429
U.S. Rice Farm Prices	(U.S. Dollar per Hundredweight)													
Season Average Farm Price	10.40	12.90	12.30	13.20	12.90	12.85	12.91	12.98	12.97	12.95	12.93	12.83	12.88	12.93
Long Grain Farm Price	9.61	11.50	10.80	12.20	11.84	11.91	11.97	12.06	12.06	12.03	12.01	11.90	11.97	12.03
Japonica Medium Farm Price	14.10	20.10	20.00	18.30	18.06	18.00	18.01	17.96	17.92	17.89	17.86	17.81	17.79	17.80
Non-Japonica Medium Farm Price	10.10	11.70	12.30	12.20	12.29	12.26	12.44	12.50	12.50	12.49	12.47	12.38	12.42	12.46

Table 8. Argentina Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	204	198	183	186	191	192	194	194	194	193	191	190	188	186
	(Metric Tons per Hectare)													
Yield	4.23	4.49	4.23	4.33	4.39	4.43	4.51	4.57	4.64	4.71	4.79	4.86	4.94	5.01
	(Thousand Metric Tons)													
Production	863	889	774	806	838	852	873	887	899	908	915	924	929	932
Beginning Stocks	309	304	264	156	115	46	25	36	40	43	45	47	49	52
Domestic Supply	1,172	1,193	1,038	962	953	898	899	924	939	951	960	971	978	984
Consumption	530	510	520	525	536	543	553	562	569	576	582	588	593	596
Ending Stocks	304	264	156	115	46	25	36	40	43	45	47	49	52	52
Domestic Use	834	774	676	640	582	568	589	602	612	620	630	637	645	648
Net Trade	338	419	362	322	370	330	309	322	327	330	331	334	333	336

Table 8. Australia Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	82	61	5	5	33	46	55	58	58	57	57	57	57	57
	(Metric Tons per Hectare)													
Yield	7.09	7.49	8.80	7.20	7.92	7.97	8.05	8.15	8.26	8.37	8.48	8.60	8.71	8.82
	(Thousand Metric Tons)													
Production	581	457	44	36	261	371	439	469	476	480	487	489	496	506
Beginning Stocks	77	208	217	41	27	23	82	165	227	244	242	230	204	170
Domestic Supply	658	665	261	77	288	394	521	633	703	724	730	719	699	676
Consumption	385	380	350	330	338	346	358	375	386	395	405	406	408	411
Ending Stocks	208	217	41	27	23	82	165	227	244	242	230	204	170	142
Domestic Use	593	597	391	357	361	428	523	602	630	637	636	609	578	553
Net Trade	65	68	-130	-280	-73	-34	-1	32	72	86	94	110	121	122

Table 9. Bangladesh Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	11,748	11,272	11,770	11,830	11,743	11,687	11,637	11,585	11,563	11,557	11,534	11,477	11,432	11,406
	(Metric Tons per Hectare)													
Yield	2.94	2.90	2.97	3.03	3.05	3.08	3.10	3.14	3.17	3.21	3.23	3.27	3.29	3.33
	(Thousand Metric Tons)													
Production	34,578	32,650	34,909	35,850	35,820	35,953	36,119	36,421	36,680	37,065	37,283	37,495	37,643	37,956
Beginning Stocks	1,205	854	1,500	1,405	1,511	1,513	1,530	1,536	1,542	1,549	1,552	1,556	1,560	1,564
Domestic Supply	35,783	33,504	36,409	37,255	37,331	37,466	37,649	37,957	38,222	38,614	38,834	39,051	39,204	39,521
Consumption	35,000	35,200	35,400	35,800	36,161	36,479	36,806	37,116	37,434	37,584	37,807	38,023	38,219	38,467
Ending Stocks	854	1,500	1,405	1,511	1,513	1,530	1,536	1,542	1,549	1,552	1,556	1,560	1,564	1,569
Domestic Use	35,854	36,700	36,805	37,311	37,674	38,009	38,342	38,659	38,982	39,136	39,363	39,584	39,783	40,037
Net Trade	-71	-3,196	-396	-56	-343	-542	-693	-702	-761	-522	-528	-533	-579	-516

Table 10. Brazil Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	1,981	1,973	1,700	1,680	1,685	1,677	1,670	1,663	1,656	1,649	1,643	1,636	1,630	1,625
	(Metric Tons per Hectare)													
Yield	4.23	4.16	4.20	4.25	4.12	4.14	4.16	4.20	4.23	4.26	4.28	4.31	4.34	4.37
	(Thousand Metric Tons)													
Production	8,383	8,204	7,140	7,140	6,933	6,935	6,952	6,981	6,998	7,021	7,037	7,054	7,079	7,100
Beginning Stocks	308	625	489	229	369	359	357	357	359	361	362	364	367	369
Domestic Supply	8,691	8,829	7,629	7,369	7,302	7,294	7,309	7,338	7,357	7,382	7,399	7,418	7,446	7,470
Consumption	7,850	7,750	7,500	7,500	7,519	7,550	7,573	7,608	7,651	7,694	7,729	7,769	7,780	7,775
Ending Stocks	625	489	229	369	359	357	357	359	361	362	364	367	369	373
Domestic Use	8,475	8,239	7,729	7,869	7,878	7,908	7,930	7,967	8,012	8,056	8,093	8,135	8,149	8,147
Net Trade	216	590	-100	-500	-576	-613	-621	-628	-655	-674	-694	-717	-703	-678

Table 11. Brunei Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	(Metric Tons per Hectare)													
Yield	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
	(Thousand Metric Tons)													
Production	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Beginning Stocks	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Supply	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Consumption	42	37	51	51	52	53	53	54	55	56	57	58	59	60
Ending Stocks	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	42	37	51	51	52	53	53	54	55	56	57	58	59	60
Net Trade	-41	-36	-50	-50	-51	-52	-52	-53	-54	-55	-56	-57	-58	-59

Table 12. Cambodia Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	3,095	3,184	3,190	3,190	3,228	3,266	3,276	3,287	3,297	3,320	3,340	3,358	3,387	3,396
	(Metric Tons per Hectare)													
Yield	1.70	1.74	1.77	1.78	1.78	1.81	1.83	1.89	1.92	1.97	2.00	2.02	2.04	2.07
	(Thousand Metric Tons)													
Production	5,256	5,554	5,633	5,688	5,761	5,926	6,011	6,213	6,336	6,542	6,678	6,778	6,900	7,013
Beginning Stocks	247	373	447	550	558	502	520	522	526	528	531	533	535	537
Domestic Supply	5,503	5,927	6,080	6,238	6,319	6,428	6,531	6,736	6,861	7,070	7,209	7,311	7,434	7,550
Consumption	4,000	4,200	4,200	4,300	4,354	4,416	4,482	4,564	4,628	4,694	4,753	4,801	4,861	4,913
Ending Stocks	373	447	550	558	502	520	522	526	528	531	533	535	537	539
Domestic Use	4,373	4,647	4,750	4,858	4,856	4,936	5,005	5,090	5,156	5,224	5,286	5,335	5,398	5,452
Net Trade	1,130	1,280	1,330	1,380	1,463	1,492	1,526	1,646	1,706	1,845	1,923	1,976	2,037	2,097

Table 13. Cameroon Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	276	270	270	270	268	269	271	272	275	278	281	284	287	290
	(Metric Tons per Hectare)													
Yield	0.82	0.84	0.82	0.82	0.94	1.04	1.10	1.11	1.14	1.17	1.19	1.21	1.21	1.21
	(Thousand Metric Tons)													
Production	226	227	221	221	251	280	298	303	314	324	335	343	348	351
Beginning Stocks	0	0	0	0	0	4	4	5	5	6	7	8	8	9
Domestic Supply	226	227	221	221	251	283	302	307	319	330	342	351	356	360
Consumption	801	852	896	921	969	1,000	1,028	1,060	1,094	1,135	1,175	1,211	1,248	1,296
Ending Stocks	0	0	0	0	4	4	5	5	6	7	8	8	9	10
Domestic Use	801	852	896	921	972	1,004	1,033	1,066	1,100	1,141	1,183	1,219	1,257	1,306
Net Trade	-575	-625	-675	-700	-722	-721	-731	-758	-781	-811	-841	-869	-901	-946

Table 14. Canada Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Metric Tons)													
Consumption	354	363	387	385	403	408	414	421	428	437	445	453	460	467
Ending Stocks	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	354	363	387	385	403	408	414	421	428	437	445	453	460	467
Net Trade	-362	-373	-400	-400	-403	-408	-414	-421	-428	-437	-445	-453	-460	-467

Table 15. China Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	30,746	30,747	30,189	29,690	29,486	29,315	29,164	29,040	28,930	28,852	28,791	28,719	28,649	28,616
	(Metric Tons per Hectare)													
Yield	4.81	4.84	4.92	4.94	4.90	4.91	4.91	4.92	4.92	4.93	4.93	4.94	4.94	4.94
	(Thousand Metric Tons)													
Production	147,766	148,873	148,490	146,730	144,444	143,799	143,281	142,893	142,465	142,196	142,009	141,769	141,536	141,491
Beginning Stocks	88,000	98,500	109,000	114,420	117,250	117,513	117,360	116,718	115,648	114,053	112,175	110,169	107,911	105,502
Domestic Supply	235,766	247,373	257,490	261,150	261,694	261,312	260,640	259,611	258,113	256,249	254,184	251,938	249,446	246,993
Consumption	141,761	142,487	142,970	143,000	144,095	144,247	144,498	144,688	144,858	144,951	144,972	145,057	145,050	144,890
Ending Stocks	98,500	109,000	114,420	117,250	117,513	117,360	116,718	115,648	114,053	112,175	110,169	107,911	105,502	103,278
Domestic Use	240,261	251,487	257,390	260,250	261,608	261,606	261,215	260,336	258,911	257,126	255,141	252,968	250,552	248,168
Net Trade	-4,495	-4,114	100	900	86	-295	-575	-725	-797	-877	-957	-1,029	-1,106	-1,175

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Table 16. Colombia Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	
	(Thousand Hectares)														
Area Harvested		525	595	501	500	510	516	519	523	525	529	531	535	537	541
	(Metric Tons per Hectare)														
Yield		3.27	2.96	3.38	3.28	3.29	3.31	3.34	3.36	3.37	3.38	3.39	3.40	3.42	3.43
	(Thousand Metric Tons)														
Production		1,718	1,763	1,691	1,640	1,678	1,707	1,734	1,755	1,769	1,788	1,801	1,820	1,834	1,853
Beginning Stocks		142	254	352	352	302	269	241	224	216	211	211	198	179	155
Domestic Supply		1,860	2,017	2,043	1,992	1,980	1,975	1,975	1,979	1,986	1,999	2,013	2,018	2,013	2,008
Consumption		1,750	1,800	1,840	1,870	1,897	1,918	1,928	1,934	1,946	1,958	1,996	2,024	2,050	2,060
Ending Stocks		254	352	352	302	269	241	224	216	211	211	198	179	155	146
Domestic Use		2,004	2,152	2,192	2,172	2,165	2,159	2,153	2,151	2,157	2,169	2,194	2,204	2,205	2,205
Net Trade		-144	-135	-149	-180	-185	-184	-177	-171	-171	-170	-181	-186	-192	-197

Table 17. Cote d'Ivoire Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	900	862	875	900	902	906	911	925	936	931	927	919	910	907
	(Metric Tons per Hectare)													
Yield	1.48	1.60	1.49	1.56	1.58	1.61	1.63	1.66	1.68	1.71	1.73	1.76	1.78	1.81
	(Thousand Metric Tons)													
Production	1,335	1,377	1,304	1,400	1,426	1,456	1,486	1,533	1,574	1,589	1,605	1,614	1,621	1,639
Beginning Stocks	542	507	524	428	428	431	438	449	461	476	491	506	523	540
Domestic Supply	1,877	1,884	1,828	1,828	1,854	1,887	1,924	1,982	2,035	2,065	2,096	2,120	2,144	2,179
Consumption	2,600	2,650	2,650	2,650	2,805	2,889	2,995	3,107	3,230	3,354	3,480	3,616	3,749	3,855
Ending Stocks	507	524	428	428	431	438	449	461	476	491	506	523	540	551
Domestic Use	3,107	3,174	3,078	3,078	3,236	3,327	3,444	3,568	3,706	3,845	3,986	4,140	4,289	4,406
Net Trade	-1,230	-1,290	-1,250	-1,250	-1,382	-1,440	-1,520	-1,586	-1,670	-1,780	-1,890	-2,020	-2,145	-2,226

Table 18. Egypt Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	850	762	462	760	728	726	727	726	725	723	722	721	718	717
	(Metric Tons per Hectare)													
Yield	5.65	5.64	6.06	5.66	6.04	6.13	6.19	6.28	6.36	6.45	6.52	6.59	6.65	6.71
	(Thousand Metric Tons)													
Production	4,800	4,300	2,800	4,300	4,400	4,449	4,501	4,562	4,612	4,664	4,711	4,753	4,777	4,810
Beginning Stocks	924	1,426	1,563	1,093	1,243	1,324	1,423	1,494	1,532	1,532	1,491	1,420	1,314	1,153
Domestic Supply	5,724	5,726	4,363	5,393	5,643	5,773	5,924	6,056	6,144	6,196	6,202	6,172	6,091	5,962
Consumption	4,300	4,200	4,150	4,350	4,419	4,450	4,530	4,624	4,712	4,805	4,882	4,958	5,038	5,113
Ending Stocks	1,426	1,563	1,093	1,243	1,324	1,423	1,494	1,532	1,532	1,491	1,420	1,314	1,153	950
Domestic Use	5,726	5,763	5,243	5,593	5,743	5,873	6,024	6,156	6,244	6,296	6,302	6,272	6,191	6,062
Net Trade	-2	-37	-880	-200	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100

Table 19. European Union-28 Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	440	431	414	421	420	423	425	426	427	427	429	430	432	434
							(Metric Tons per Hectare)							
Yield	4.74	4.71	4.72	4.76	4.70	4.76	4.79	4.83	4.85	4.89	4.92	4.94	4.97	5.00
							(Thousand Metric Tons)							
Production	2,087	2,028	1,956	2,003	1,975	2,011	2,035	2,055	2,073	2,090	2,110	2,128	2,148	2,170
Beginning Stocks	1,183	1,192	1,181	1,127	1,085	938	819	722	642	581	517	473	435	406
Domestic Supply	3,270	3,220	3,137	3,130	3,060	2,948	2,854	2,776	2,715	2,671	2,627	2,600	2,584	2,576
Consumption	3,600	3,696	3,790	3,795	3,841	3,853	3,868	3,885	3,900	3,926	3,944	3,969	3,996	4,014
Ending Stocks	1,192	1,181	1,127	1,085	938	819	722	642	581	517	473	435	406	387
Domestic Use	4,792	4,877	4,917	4,880	4,779	4,673	4,590	4,528	4,482	4,443	4,417	4,404	4,402	4,401
Net Trade	-1,522	-1,657	-1,780	-1,750	-1,719	-1,725	-1,736	-1,751	-1,766	-1,772	-1,790	-1,804	-1,818	-1,825

Table 20. Ghana Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	244	259	260	260	269	279	289	298	307	315	321	325	330	334
							(Metric Tons per Hectare)							
Yield	1.69	1.67	1.74	1.81	1.86	1.89	1.90	1.93	1.96	1.99	1.99	2.02	2.03	2.04
							(Thousand Metric Tons)							
Production	413	432	453	470	501	527	550	576	604	626	639	657	670	684
Beginning Stocks	76	39	131	134	104	112	115	121	122	127	135	143	151	156
Domestic Supply	489	471	584	604	605	639	664	697	726	753	773	800	821	839
Consumption	1,050	1,120	1,350	1,450	1,510	1,548	1,604	1,637	1,686	1,748	1,815	1,879	1,929	1,975
Ending Stocks	39	131	134	104	112	115	121	122	127	135	143	151	156	160
Domestic Use	1,089	1,251	1,484	1,554	1,622	1,663	1,724	1,760	1,813	1,882	1,958	2,029	2,085	2,135
Net Trade	-600	-780	-900	-950	-1,017	-1,023	-1,060	-1,063	-1,087	-1,129	-1,184	-1,229	-1,264	-1,296

Table 21. *Guinea Rice Supply and Use, 2016–2029*

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	1,688	1,708	1,710	1,710	1,734	1,763	1,792	1,820	1,847	1,870	1,890	1,908	1,925	1,940
	(Metric Tons per Hectare)													
Yield	0.85	0.85	0.90	0.90	0.95	0.99	1.04	1.09	1.12	1.15	1.18	1.22	1.26	1.31
	(Thousand Metric Tons)													
Production	1,435	1,451	1,544	1,544	1,641	1,747	1,861	1,980	2,063	2,144	2,223	2,326	2,431	2,539
Beginning Stocks	102	117	138	182	176	180	182	185	189	192	196	200	204	207
Domestic Supply	1,537	1,568	1,682	1,726	1,817	1,927	2,043	2,165	2,251	2,336	2,420	2,525	2,635	2,746
Consumption	1,950	2,050	2,200	2,350	2,464	2,535	2,599	2,697	2,788	2,893	2,980	3,099	3,175	3,254
Ending Stocks	117	138	182	176	180	182	185	189	192	196	200	204	207	210
Domestic Use	2,067	2,188	2,382	2,526	2,643	2,717	2,784	2,886	2,980	3,090	3,180	3,303	3,382	3,464
Net Trade	-530	-620	-700	-800	-827	-790	-741	-720	-729	-754	-760	-778	-747	-719

Table 22. *Hong Kong Rice Supply and Use, 2016–2029*

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Metric Tons)													
Consumption	334	326	345	350	361	366	372	379	385	392	399	405	411	417
Ending Stocks	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	334	326	345	350	361	366	372	379	385	392	399	405	411	417
Net Trade	-334	-326	-345	-350	-361	-366	-372	-379	-385	-392	-399	-405	-411	-417

Table 23. India Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	43,993	43,774	43,800	43,500	43,693	43,812	43,916	43,950	43,945	43,946	43,917	43,902	43,888	43,853
							(Metric Tons per Hectare)							
Yield	2.49	2.58	2.66	2.64	2.61	2.62	2.63	2.63	2.64	2.67	2.70	2.72	2.74	2.76
							(Thousand Metric Tons)							
Production	109,698	112,760	116,420	115,000	114,119	114,796	115,293	115,584	116,041	117,403	118,374	119,344	120,366	120,957
Beginning Stocks	18,400	20,550	22,600	29,500	30,200	29,183	28,792	28,921	29,133	29,311	29,821	30,215	30,478	30,670
Domestic Supply	128,098	133,310	139,020	144,500	144,319	143,979	144,086	144,505	145,173	146,714	148,194	149,559	150,844	151,627
Consumption	95,838	98,669	99,020	102,500	103,415	103,439	103,408	103,582	103,891	104,458	104,972	105,534	106,234	107,008
Ending Stocks	20,550	22,600	29,500	30,200	29,183	28,792	28,921	29,133	29,311	29,821	30,215	30,478	30,670	30,629
Domestic Use	116,388	121,269	128,520	132,700	132,598	132,231	132,329	132,714	133,202	134,279	135,187	136,012	136,904	137,637
Net Trade	11,710	12,041	10,500	11,800	11,721	11,748	11,757	11,791	11,971	12,434	13,008	13,546	13,940	13,990

Table 24. Indonesia Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	
							(Thousand Hectares)								
Area Harvested		12,240	12,250	12,100	12,000	12,010	12,058	12,113	12,147	12,183	12,230	12,262	12,282	12,280	12,288
							(Metric Tons per Hectare)								
Yield		3.01	3.02	3.03	3.04	3.09	3.12	3.13	3.14	3.15	3.17	3.17	3.18	3.19	3.20
							(Thousand Metric Tons)								
Production		36,858	37,000	36,700	36,500	37,138	37,566	37,854	38,155	38,427	38,733	38,913	39,054	39,127	39,289
Beginning Stocks		3,509	2,915	4,163	3,261	3,059	3,344	3,621	3,797	3,892	3,941	3,969	3,988	4,002	4,007
Domestic Supply		40,367	39,915	40,863	39,761	40,197	40,910	41,475	41,952	42,319	42,674	42,882	43,043	43,129	43,296
Consumption		37,800	38,100	37,900	37,700	38,065	38,404	38,754	39,099	39,436	39,698	40,030	40,150	40,353	40,516
Ending Stocks		2,915	4,163	3,261	3,059	3,344	3,621	3,797	3,892	3,941	3,969	3,988	4,002	4,007	4,008
Domestic Use		40,715	42,263	41,161	40,759	41,410	42,025	42,552	42,991	43,377	43,667	44,018	44,152	44,360	44,524
Net Trade		-348	-2,348	-298	-998	-1,213	-1,114	-1,077	-1,039	-1,058	-994	-1,136	-1,110	-1,231	-1,228

Table 25. Iran Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	596	572	575	575	577	577	578	578	578	578	579	581	584	587
							(Metric Tons per Hectare)							
Yield	3.23	3.52	3.47	3.47	3.49	3.52	3.54	3.57	3.59	3.62	3.64	3.67	3.69	3.72
							(Thousand Metric Tons)							
Production	1,928	2,013	1,993	1,993	2,015	2,029	2,045	2,060	2,075	2,091	2,107	2,130	2,155	2,181
Beginning Stocks	256	534	597	590	433	420	423	434	447	460	472	485	499	517
Domestic Supply	2,184	2,547	2,590	2,583	2,448	2,449	2,468	2,494	2,522	2,551	2,580	2,615	2,654	2,697
Consumption	3,050	3,150	3,200	3,300	3,355	3,419	3,483	3,531	3,576	3,616	3,660	3,708	3,782	3,835
Ending Stocks	534	597	590	433	420	423	434	447	460	472	485	499	517	534
Domestic Use	3,584	3,747	3,790	3,733	3,775	3,841	3,917	3,977	4,036	4,089	4,145	4,207	4,299	4,369
Net Trade	-1,400	-1,200	-1,200	-1,150	-1,327	-1,392	-1,450	-1,483	-1,514	-1,538	-1,565	-1,591	-1,645	-1,672

Table 26. Iraq Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	55	85	8	95	96	95	96	95	95	94	93	92	91	91
							(Metric Tons per Hectare)							
Yield	2.20	2.47	2.50	3.16	3.22	3.23	3.24	3.25	3.26	3.28	3.29	3.30	3.31	3.32
							(Thousand Metric Tons)							
Production	121	210	20	300	308	308	310	310	310	308	306	304	303	303
Beginning Stocks	57	73	113	33	83	116	130	136	137	136	131	124	118	114
Domestic Supply	178	283	133	333	391	423	440	446	447	444	437	428	421	417
Consumption	1,175	1,300	1,300	1,400	1,429	1,453	1,481	1,510	1,509	1,516	1,537	1,568	1,601	1,631
Ending Stocks	73	113	33	83	116	130	136	137	136	131	124	118	114	111
Domestic Use	1,248	1,413	1,333	1,483	1,545	1,584	1,617	1,647	1,645	1,647	1,661	1,686	1,715	1,742
Net Trade	-1,070	-1,130	-1,200	-1,150	-1,154	-1,160	-1,177	-1,201	-1,199	-1,203	-1,224	-1,259	-1,294	-1,325

Table 27. Japan Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	1,570	1,557	1,550	1,545	1,527	1,520	1,521	1,511	1,492	1,481	1,473	1,460	1,452	1,447
							(Metric Tons per Hectare)							
Yield	5.05	5.00	4.94	5.05	4.98	5.00	5.00	5.01	5.02	5.02	5.02	5.02	5.02	5.03
							(Thousand Metric Tons)							
Production	7,929	7,787	7,657	7,800	7,609	7,596	7,610	7,575	7,490	7,437	7,397	7,323	7,291	7,279
Beginning Stocks	2,552	2,410	2,223	2,005	2,025	1,958	1,942	1,994	2,071	2,113	2,155	2,204	2,218	2,251
Domestic Supply	10,481	10,197	9,880	9,805	9,634	9,555	9,552	9,570	9,561	9,550	9,552	9,527	9,510	9,529
Consumption	8,730	8,600	8,500	8,400	8,292	8,230	8,174	8,116	8,065	8,012	7,965	7,925	7,876	7,830
Ending Stocks	2,410	2,223	2,005	2,025	1,958	1,942	1,994	2,071	2,113	2,155	2,204	2,218	2,251	2,316
Domestic Use	11,140	10,823	10,505	10,425	10,251	10,172	10,169	10,187	10,178	10,167	10,169	10,144	10,127	10,146
Net Trade	-659	-626	-625	-620	-617	-617	-617	-617	-617	-617	-617	-617	-617	-617

Table 28. Kenya Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	29	30	30	30	31	31	31	31	31	31	31	31	31	31
							(Metric Tons per Hectare)							
Yield	2.31	1.77	2.63	2.67	2.70	2.74	2.76	2.79	2.82	2.85	2.88	2.92	2.95	2.98
							(Thousand Metric Tons)							
Production	67	53	79	80	83	85	86	87	89	90	90	91	92	93
Beginning Stocks	87	134	112	121	106	115	121	128	136	147	159	170	180	184
Domestic Supply	154	187	191	201	189	200	207	215	224	237	249	261	272	277
Consumption	670	750	820	870	931	979	1,030	1,084	1,155	1,226	1,292	1,358	1,397	1,441
Ending Stocks	134	112	121	106	115	121	128	136	147	159	170	180	184	189
Domestic Use	804	862	941	976	1,047	1,101	1,158	1,220	1,303	1,386	1,462	1,538	1,581	1,630
Net Trade	-650	-675	-750	-775	-858	-901	-950	-1,004	-1,079	-1,149	-1,213	-1,277	-1,309	-1,353

Table 29. Lao PDR Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	973	964	856	985	1,014	1,030	1,047	1,062	1,076	1,089	1,102	1,115	1,128	1,143
							(Metric Tons per Hectare)							
Yield	2.00	2.07	1.96	2.08	2.10	2.12	2.14	2.16	2.18	2.20	2.22	2.24	2.26	2.28
							(Thousand Metric Tons)							
Production	1,950	2,000	1,680	2,050	2,129	2,183	2,241	2,296	2,349	2,400	2,451	2,502	2,555	2,610
Beginning Stocks	459	340	208	88	138	142	144	146	148	149	151	152	154	155
Domestic Supply	2,409	2,340	1,888	2,138	2,267	2,325	2,385	2,442	2,496	2,549	2,601	2,654	2,709	2,765
Consumption	2,080	2,100	1,950	2,000	2,111	2,161	2,209	2,247	2,287	2,326	2,368	2,405	2,440	2,470
Ending Stocks	340	208	88	138	142	144	146	148	149	151	152	154	155	156
Domestic Use	2,420	2,308	2,038	2,138	2,254	2,305	2,355	2,395	2,436	2,477	2,520	2,559	2,595	2,626
Net Trade	-11	32	-150	0	13	20	30	47	60	72	81	95	114	139

Table 30. Liberia Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	245	236	240	240	243	247	251	256	260	265	269	273	277	280
							(Metric Tons per Hectare)							
Yield	0.69	0.66	0.69	0.66	0.71	0.76	0.83	0.85	0.88	0.89	0.90	0.91	0.92	0.93
							(Thousand Metric Tons)							
Production	170	156	166	158	171	187	209	219	229	235	242	248	254	260
Beginning Stocks	12	37	33	39	47	48	48	49	50	51	52	52	53	54
Domestic Supply	182	193	199	197	218	235	258	268	279	286	293	300	307	314
Consumption	455	510	530	550	573	584	600	621	647	668	688	710	729	742
Ending Stocks	37	33	39	47	48	48	49	50	51	52	52	53	54	55
Domestic Use	492	543	569	597	621	632	649	671	698	720	740	763	783	797
Net Trade	-310	-350	-370	-400	-403	-397	-392	-404	-418	-434	-447	-463	-476	-483

Table 31. Malaysia Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	695	695	700	700	700	701	703	705	707	709	711	713	716	719
							(Metric Tons per Hectare)							
Yield	2.62	2.62	2.61	2.61	2.69	2.73	2.79	2.82	2.85	2.89	2.91	2.94	2.96	2.99
							(Thousand Metric Tons)							
Production	1,820	1,820	1,825	1,825	1,882	1,917	1,959	1,990	2,019	2,047	2,068	2,095	2,122	2,150
Beginning Stocks	460	429	279	304	324	396	409	407	412	416	420	423	427	430
Domestic Supply	2,280	2,249	2,104	2,129	2,206	2,313	2,368	2,397	2,431	2,463	2,488	2,518	2,549	2,580
Consumption	2,750	2,750	2,750	2,775	2,802	2,797	2,828	2,854	2,879	2,903	2,925	2,945	2,964	2,977
Ending Stocks	429	279	304	324	396	409	407	412	416	420	423	427	430	433
Domestic Use	3,179	3,029	3,054	3,099	3,198	3,206	3,235	3,266	3,295	3,323	3,348	3,372	3,394	3,410
Net Trade	-899	-780	-950	-970	-992	-893	-867	-869	-864	-860	-860	-854	-846	-830

Table 32. Mali Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	835	768	900	900	904	915	933	944	950	954	951	948	945	942
							(Metric Tons per Hectare)							
Yield	2.17	2.29	2.29	2.17	2.25	2.32	2.35	2.39	2.42	2.46	2.49	2.53	2.56	2.60
							(Thousand Metric Tons)							
Production	1,808	1,760	2,059	1,950	2,034	2,119	2,194	2,253	2,302	2,344	2,370	2,398	2,423	2,447
Beginning Stocks	127	185	125	284	259	260	260	261	263	265	269	271	274	277
Domestic Supply	1,935	1,945	2,184	2,234	2,293	2,379	2,454	2,514	2,566	2,609	2,639	2,669	2,697	2,724
Consumption	1,950	2,050	2,200	2,300	2,368	2,430	2,509	2,618	2,728	2,864	2,966	3,110	3,230	3,349
Ending Stocks	185	125	284	259	260	260	261	263	265	269	271	274	277	279
Domestic Use	2,135	2,175	2,484	2,559	2,627	2,690	2,770	2,881	2,993	3,133	3,236	3,384	3,507	3,628
Net Trade	-200	-230	-300	-325	-334	-311	-317	-367	-428	-523	-598	-715	-810	-904

Table 33. Mexico Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	40	41	43	45	46	47	47	47	47	47	46	46	46	46
							(Metric Tons per Hectare)							
Yield	4.38	4.46	4.42	4.44	4.41	4.43	4.47	4.49	4.48	4.49	4.51	4.53	4.55	4.57
							(Thousand Metric Tons)							
Production	175	183	190	200	204	206	209	211	210	210	210	210	210	210
Beginning Stocks	127	172	151	151	191	205	205	207	208	209	213	216	220	224
Domestic Supply	302	355	341	351	395	411	414	417	418	418	422	425	430	434
Consumption	915	915	920	925	974	990	1,009	1,026	1,045	1,067	1,084	1,108	1,122	1,137
Ending Stocks	172	151	151	191	205	205	207	208	209	213	216	220	224	228
Domestic Use	1,087	1,066	1,071	1,116	1,179	1,195	1,216	1,234	1,254	1,279	1,299	1,328	1,346	1,366
Net Trade	-785	-711	-730	-765	-784	-784	-801	-816	-836	-861	-877	-903	-916	-932

Table 34. Mozambique Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	350	350	350	350	351	353	358	362	366	370	375	380	386	392
							(Metric Tons per Hectare)							
Yield	0.61	0.74	0.95	0.65	0.75	0.76	0.77	0.79	0.80	0.81	0.82	0.84	0.85	0.86
							(Thousand Metric Tons)							
Production	213	260	331	228	263	269	277	284	292	300	309	318	328	338
Beginning Stocks	0	0	0	0	0	3	3	4	5	6	7	8	8	9
Domestic Supply	213	260	331	228	263	272	280	288	297	306	316	326	336	346
Consumption	928	910	951	958	985	1,025	1,071	1,110	1,174	1,240	1,309	1,346	1,386	1,426
Ending Stocks	0	0	0	0	3	3	4	5	6	7	8	8	9	9
Domestic Use	928	910	951	958	987	1,029	1,075	1,115	1,180	1,247	1,316	1,355	1,394	1,435
Net Trade	-715	-650	-620	-730	-725	-757	-795	-826	-883	-941	-1,001	-1,029	-1,059	-1,089

Table 35. Myanmar Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	7,030	7,100	7,100	7,100	7,101	7,101	7,106	7,110	7,113	7,103	7,112	7,098	7,088	7,094
							(Metric Tons per Hectare)							
Yield	1.80	1.86	1.86	1.87	1.89	1.89	1.93	1.97	2.00	2.02	2.04	2.07	2.09	2.11
							(Thousand Metric Tons)							
Production	12,650	13,200	13,175	13,300	13,392	13,443	13,729	13,993	14,199	14,343	14,478	14,660	14,802	14,977
Beginning Stocks	1,241	551	811	1,096	1,256	1,395	1,405	1,407	1,406	1,405	1,410	1,414	1,419	1,422
Domestic Supply	13,891	13,751	13,986	14,396	14,648	14,838	15,134	15,399	15,605	15,748	15,887	16,074	16,220	16,399
Consumption	10,000	10,200	10,400	10,550	10,623	10,624	10,657	10,731	10,805	10,884	10,969	11,048	11,113	11,178
Ending Stocks	551	811	1,096	1,256	1,395	1,405	1,407	1,406	1,405	1,410	1,414	1,419	1,422	1,426
Domestic Use	10,551	11,011	11,496	11,806	12,018	12,029	12,064	12,137	12,210	12,294	12,384	12,466	12,535	12,604
Net Trade	3,340	2,740	2,490	2,590	2,630	2,809	3,070	3,263	3,394	3,454	3,504	3,608	3,685	3,795

Table 36. Nigeria Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	3,300	3,600	3,600	3,600	3,612	3,640	3,670	3,686	3,721	3,752	3,780	3,821	3,865	3,894
							(Metric Tons per Hectare)							
Yield	1.37	1.31	1.33	1.36	1.36	1.37	1.38	1.39	1.40	1.41	1.42	1.43	1.44	1.46
							(Thousand Metric Tons)							
Production	4,536	4,725	4,788	4,900	4,904	4,994	5,050	5,124	5,226	5,285	5,379	5,453	5,571	5,667
Beginning Stocks	1,528	1,864	1,689	1,377	1,077	998	962	939	924	913	906	900	897	894
Domestic Supply	6,064	6,589	6,477	6,277	5,981	5,992	6,012	6,063	6,150	6,199	6,284	6,354	6,468	6,561
Consumption	6,700	6,900	7,000	7,000	7,268	7,490	7,773	8,059	8,314	8,568	8,800	9,003	9,197	9,332
Ending Stocks	1,864	1,689	1,377	1,077	998	962	939	924	913	906	900	897	894	892
Domestic Use	8,564	8,589	8,377	8,077	8,266	8,452	8,712	8,984	9,228	9,474	9,700	9,899	10,091	10,224
Net Trade	-2,500	-2,000	-1,900	-1,800	-2,285	-2,460	-2,700	-2,920	-3,077	-3,275	-3,416	-3,545	-3,623	-3,663

Table 39. Saudi Arabia Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Metric Tons)													
Beginning Stocks	410	255	195	175	170	176	180	183	186	189	192	196	199	203
Domestic Supply	410	255	195	175	170	176	180	183	186	189	192	196	199	203
Consumption	1,350	1,350	1,370	1,380	1,417	1,449	1,483	1,515	1,549	1,585	1,622	1,659	1,697	1,733
Ending Stocks	255	195	175	170	176	180	183	186	189	192	196	199	203	206
Domestic Use	1,605	1,545	1,545	1,550	1,593	1,628	1,665	1,701	1,738	1,777	1,818	1,858	1,899	1,939
Net Trade	-1,195	-1,290	-1,350	-1,375	-1,423	-1,452	-1,486	-1,518	-1,552	-1,588	-1,626	-1,663	-1,700	-1,737

Table 40. Senegal Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	284	300	300	300	308	313	318	321	324	326	328	330	332	335
	(Metric Tons per Hectare)													
Yield	2.26	2.49	2.72	2.72	2.75	2.79	2.83	2.85	2.87	2.89	2.91	2.93	2.95	2.97
	(Thousand Metric Tons)													
Production	643	748	816	816	846	873	898	916	931	943	954	966	980	994
Beginning Stocks	251	234	237	243	269	269	267	272	279	291	292	288	285	294
Domestic Supply	894	982	1,053	1,059	1,115	1,141	1,165	1,188	1,211	1,233	1,246	1,254	1,264	1,288
Consumption	1,750	1,835	1,950	1,980	2,043	2,134	2,234	2,322	2,428	2,510	2,592	2,673	2,769	2,864
Ending Stocks	234	237	243	269	269	267	272	279	291	292	288	285	294	303
Domestic Use	1,984	2,072	2,193	2,249	2,312	2,400	2,506	2,602	2,718	2,802	2,880	2,958	3,062	3,167
Net Trade	-1,090	-1,090	-1,140	-1,190	-1,197	-1,259	-1,341	-1,414	-1,508	-1,568	-1,634	-1,704	-1,798	-1,879

Table 41. Sierra Leone Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	746	647	700	700	707	714	721	727	733	738	743	747	751	754
	(Metric Tons per Hectare)													
Yield	0.98	1.36	1.05	1.14	1.24	1.29	1.34	1.38	1.43	1.47	1.51	1.55	1.58	1.62
	(Thousand Metric Tons)													
Production	731	882	737	800	875	920	967	1,006	1,046	1,086	1,121	1,156	1,185	1,221
Beginning Stocks	0	0	0	0	0	1	1	2	3	3	4	5	6	7
Domestic Supply	731	882	737	800	875	921	969	1,008	1,048	1,089	1,125	1,161	1,191	1,227
Consumption	1,101	1,232	1,137	1,250	1,283	1,313	1,347	1,388	1,429	1,471	1,510	1,553	1,591	1,635
Ending Stocks	0	0	0	0	1	1	2	3	3	4	5	6	7	7
Domestic Use	1,101	1,232	1,137	1,250	1,284	1,314	1,349	1,390	1,433	1,475	1,515	1,559	1,598	1,642
Net Trade	-370	-350	-400	-450	-408	-393	-381	-382	-385	-386	-390	-398	-406	-414

Table 42. Singapore Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Metric Tons)													
Consumption	323	287	330	300	328	329	330	331	334	336	337	337	338	337
Ending Stocks	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	323	287	330	300	328	329	330	331	334	336	337	337	338	337
Net Trade	-323	-287	-330	-300	-328	-329	-330	-331	-334	-336	-337	-337	-338	-337

Table 43. South Africa Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Metric Tons)													
Beginning Stocks	10	15	75	55	55	58	61	65	68	71	75	78	81	83
Domestic Supply	10	15	75	55	55	58	61	65	68	71	75	78	81	83
Consumption	861	902	918	925	938	956	973	990	1,005	1,024	1,038	1,055	1,067	1,079
Ending Stocks	15	75	55	55	58	61	65	68	71	75	78	81	83	86
Domestic Use	876	977	973	980	995	1,017	1,037	1,058	1,076	1,098	1,115	1,135	1,150	1,165
Net Trade	-866	-962	-898	-925	-940	-959	-976	-994	-1,008	-1,027	-1,040	-1,058	-1,070	-1,082

Table 44. South Korea Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	779	755	738	730	733	728	726	722	716	710	700	694	687	680
	(Metric Tons per Hectare)													
Yield	5.39	5.26	5.24	5.13	5.30	5.35	5.39	5.44	5.45	5.46	5.47	5.48	5.49	5.50
	(Thousand Metric Tons)													
Production	4,197	3,972	3,868	3,744	3,887	3,892	3,912	3,924	3,898	3,871	3,831	3,800	3,774	3,738
Beginning Stocks	1,831	2,000	1,560	1,022	721	600	572	603	670	759	871	968	1,032	1,094
Domestic Supply	6,028	5,972	5,428	4,766	4,608	4,492	4,484	4,528	4,568	4,630	4,702	4,768	4,806	4,832
Consumption	4,435	4,746	4,712	4,400	4,367	4,330	4,289	4,266	4,218	4,168	4,143	4,144	4,121	4,110
Ending Stocks	2,000	1,560	1,022	721	600	572	603	670	759	871	968	1,032	1,094	1,131
Domestic Use	6,435	6,306	5,734	5,121	4,967	4,901	4,893	4,936	4,977	5,039	5,111	5,176	5,215	5,241
Net Trade	-407	-334	-306	-355	-359	-409	-409	-409	-409	-409	-409	-409	-409	-409

Table 45. Taiwan Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	260	273	260	250	246	242	239	237	236	233	230	227	224	221
							(Metric Tons per Hectare)							
Yield	4.40	4.99	4.54	4.54	4.55	4.56	4.57	4.57	4.58	4.59	4.59	4.60	4.61	4.62
							(Thousand Metric Tons)							
Production	1,144	1,362	1,181	1,136	1,119	1,102	1,091	1,084	1,078	1,068	1,056	1,044	1,033	1,022
Beginning Stocks	243	352	605	696	742	770	781	783	778	768	748	717	675	624
Domestic Supply	1,387	1,714	1,786	1,832	1,861	1,872	1,872	1,867	1,856	1,836	1,804	1,761	1,708	1,646
Consumption	1,140	1,150	1,160	1,160	1,168	1,166	1,165	1,165	1,164	1,164	1,163	1,162	1,160	1,157
Ending Stocks	352	605	696	742	770	781	783	778	768	748	717	675	624	565
Domestic Use	1,492	1,755	1,856	1,902	1,937	1,948	1,948	1,943	1,932	1,912	1,880	1,837	1,784	1,722
Net Trade	-105	-41	-70	-70	-76	-76	-76	-76	-76	-76	-76	-76	-76	-76

Table 46. Tanzania Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	1,234	1,170	1,200	1,200	1,250	1,275	1,289	1,315	1,347	1,379	1,412	1,447	1,487	1,528
							(Metric Tons per Hectare)							
Yield	1.61	1.62	1.71	1.71	1.74	1.77	1.80	1.83	1.86	1.89	1.93	1.96	2.00	2.03
							(Thousand Metric Tons)							
Production	1,984	1,896	2,046	2,046	2,169	2,252	2,317	2,405	2,507	2,613	2,722	2,838	2,967	3,104
Beginning Stocks	0	0	0	0	0	2	4	7	10	12	14	16	18	19
Domestic Supply	1,984	1,896	2,046	2,046	2,169	2,254	2,320	2,412	2,517	2,625	2,737	2,854	2,985	3,122
Consumption	2,254	2,106	2,266	2,286	2,487	2,667	2,933	3,146	3,333	3,535	3,681	3,855	3,983	4,116
Ending Stocks	0	0	0	0	2	4	7	10	12	14	16	18	19	20
Domestic Use	2,254	2,106	2,266	2,286	2,489	2,671	2,940	3,156	3,345	3,550	3,697	3,873	4,001	4,136
Net Trade	-270	-210	-220	-240	-320	-417	-620	-743	-829	-925	-960	-1,019	-1,016	-1,013

Table 47. Thailand Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	10,247	10,756	10,830	10,000	10,485	10,713	10,829	10,876	10,896	10,904	10,906	10,905	10,901	10,895
							(Metric Tons per Hectare)							
Yield	1.87	1.91	1.88	1.85	1.90	1.91	1.93	1.93	1.95	1.98	1.99	2.01	2.03	2.04
							(Thousand Metric Tons)							
Production	19,200	20,577	20,340	18,500	19,884	20,488	20,885	21,043	21,292	21,555	21,736	21,909	22,076	22,276
Beginning Stocks	8,403	4,238	3,009	3,899	3,649	4,701	5,410	5,832	5,983	5,715	5,395	4,851	4,173	3,533
Domestic Supply	27,603	24,815	23,349	22,399	23,533	25,189	26,296	26,875	27,275	27,270	27,131	26,760	26,249	25,809
Consumption	12,000	11,000	11,800	11,500	11,319	11,292	11,228	11,243	11,234	11,115	11,046	10,929	10,837	10,797
Ending Stocks	4,238	3,009	3,899	3,649	4,701	5,410	5,832	5,983	5,715	5,395	4,851	4,173	3,533	2,985
Domestic Use	16,238	14,009	15,699	15,149	16,021	16,702	17,060	17,227	16,949	16,511	15,896	15,102	14,370	13,782
Net Trade	11,365	10,806	7,650	7,250	7,513	8,487	9,236	9,649	10,326	10,759	11,235	11,658	11,879	12,027

Table 48. Turkey Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	98	99	100	100	100	101	102	102	102	103	103	103	103	104
							(Metric Tons per Hectare)							
Yield	5.10	5.25	6.10	6.10	6.15	6.20	6.26	6.32	6.38	6.44	6.50	6.55	6.61	6.67
							(Thousand Metric Tons)							
Production	500	520	610	610	615	625	636	645	653	661	669	676	684	690
Beginning Stocks	128	71	93	88	83	84	85	88	88	88	88	88	89	88
Domestic Supply	628	591	703	698	698	709	721	733	741	749	756	764	772	779
Consumption	780	790	790	800	808	814	827	831	836	841	845	851	854	858
Ending Stocks	71	93	88	83	84	85	88	88	88	88	88	89	88	88
Domestic Use	851	883	878	883	892	899	915	919	923	928	934	940	943	946
Net Trade	-223	-292	-175	-185	-195	-189	-194	-187	-183	-180	-177	-176	-171	-168

Table 49. Uruguay Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	164	162	145	145	150	150	152	152	153	152	152	151	150	149
							(Metric Tons per Hectare)							
Yield	6.02	5.39	5.74	5.79	5.89	5.95	6.03	6.11	6.19	6.27	6.35	6.43	6.51	6.59
							(Thousand Metric Tons)							
Production	987	873	832	840	880	895	918	931	947	955	965	971	976	980
Beginning Stocks	62	44	98	85	90	95	100	105	110	116	122	129	135	142
Domestic Supply	1,049	917	930	925	970	989	1,018	1,036	1,057	1,072	1,088	1,100	1,111	1,123
Consumption	55	65	60	60	62	62	63	63	64	64	65	65	66	66
Ending Stocks	44	98	85	90	95	100	105	110	116	122	129	135	142	150
Domestic Use	99	163	145	150	156	162	168	174	180	187	194	201	208	216
Net Trade	950	754	785	775	814	828	850	863	877	885	894	899	903	907

Table 50. Vietnam Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	7,714	7,645	7,615	7,665	7,575	7,515	7,484	7,441	7,381	7,317	7,286	7,256	7,238	7,213
							(Metric Tons per Hectare)							
Yield	3.55	3.62	3.65	3.69	3.79	3.81	3.85	3.90	3.94	3.96	4.00	4.04	4.07	4.10
							(Thousand Metric Tons)							
Production	27,400	27,657	27,767	28,300	28,708	28,652	28,843	28,988	29,065	28,977	29,159	29,294	29,475	29,556
Beginning Stocks	1,555	967	1,034	1,001	1,201	1,925	2,304	2,501	2,497	2,438	2,215	2,067	2,021	2,028
Domestic Supply	28,955	28,624	28,801	29,301	29,909	30,577	31,147	31,489	31,563	31,416	31,374	31,361	31,496	31,584
Consumption	22,000	21,500	21,350	21,500	21,741	21,899	22,065	22,188	22,255	22,248	22,124	21,994	21,967	21,931
Ending Stocks	967	1,034	1,001	1,201	1,925	2,304	2,501	2,497	2,438	2,215	2,067	2,021	2,028	2,031
Domestic Use	22,967	22,534	22,351	22,701	23,665	24,202	24,566	24,686	24,693	24,463	24,191	24,014	23,994	23,962
Net Trade	5,988	6,090	6,450	6,600	6,244	6,375	6,581	6,803	6,869	6,952	7,184	7,347	7,502	7,622

Table 51. Cuba Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	140	112	140	120	120	118	118	118	118	118	118	118	118	118
							(Metric Tons per Hectare)							
Yield	2.39	2.35	2.32	2.33	2.38	2.43	2.45	2.47	2.49	2.49	2.49	2.49	2.49	2.49
							(Thousand Metric Tons)							
Production	335	263	325	280	285	288	289	291	293	293	293	293	294	294
Beginning Stocks	0	0	0	0	0	2	2	2	2	2	2	2	2	2
Domestic Supply	335	263	325	280	285	290	291	293	295	295	295	295	296	296
Consumption	859	698	875	880	883	882	882	881	883	887	890	893	891	880
Ending Stocks	0	0	0	0	2	2	2	2	2	2	2	2	2	2
Domestic Use	859	698	875	880	885	884	884	883	885	889	892	895	893	882
Net Trade	-524	-435	-550	-600	-600	-594	-594	-590	-590	-594	-598	-600	-597	-587

Table 52. Costa Rica Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	46	38	37	39	40	41	41	41	41	41	41	41	42	42
							(Metric Tons per Hectare)							
Yield	2.83	2.71	2.73	2.82	2.82	2.83	2.84	2.85	2.86	2.87	2.88	2.88	2.88	2.90
							(Thousand Metric Tons)							
Production	130	103	101	110	114	115	116	117	118	118	119	119	120	121
Beginning Stocks	35	60	32	32	30	33	33	33	33	34	34	34	34	34
Domestic Supply	165	163	133	142	144	148	149	150	151	152	153	153	154	155
Consumption	260	260	253	263	271	274	278	281	284	287	289	291	294	296
Ending Stocks	60	32	32	30	33	33	33	33	34	34	34	34	34	35
Domestic Use	320	292	285	293	303	307	311	314	317	321	323	326	328	331
Net Trade	-155	-129	-152	-151	-160	-159	-162	-164	-166	-169	-170	-172	-174	-176

Table 53. Dominican Republic Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	168	179	165	160	158	158	158	158	158	158	158	158	158	157
							(Metric Tons per Hectare)							
Yield	3.42	3.30	3.45	3.50	3.56	3.58	3.62	3.64	3.64	3.66	3.67	3.68	3.69	3.70
							(Thousand Metric Tons)							
Production	575	590	570	560	562	565	571	574	575	579	580	581	582	583
Beginning Stocks	204	255	288	318	333	333	333	334	334	335	335	336	336	337
Domestic Supply	779	845	858	878	895	898	904	908	910	914	916	917	919	920
Consumption	555	566	560	565	572	578	586	592	598	604	610	617	624	630
Ending Stocks	255	288	318	333	333	333	334	334	335	335	336	336	337	337
Domestic Use	810	854	878	898	904	912	920	926	933	940	946	953	960	967
Net Trade	-31	-9	-20	-20	-9	-14	-16	-18	-24	-25	-30	-36	-42	-47

Table 54. Guatemala Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	11	11	11	11	11	11	12	12	12	12	12	12	12	12
							(Metric Tons per Hectare)							
Yield	2.18	2.18	2.18	2.18	2.22	2.24	2.26	2.28	2.30	2.31	2.33	2.34	2.36	2.37
							(Thousand Metric Tons)							
Production	24	24	24	24	25	26	26	27	27	27	28	28	28	28
Beginning Stocks	0	0	0	0	0	1	1	1	1	2	2	2	2	2
Domestic Supply	24	24	24	24	25	27	27	28	29	29	29	30	30	30
Consumption	121	112	124	128	131	134	137	141	145	148	152	156	160	164
Ending Stocks	0	0	0	0	1	1	1	1	2	2	2	2	2	2
Domestic Use	121	112	124	128	132	135	139	142	146	150	154	158	162	166
Net Trade	-97	-88	-100	-104	-107	-109	-111	-114	-118	-121	-125	-128	-132	-136

Table 55. Honduras Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	26	26	26	24	23	24	25	26	26	27	28	29	29	29
	(Metric Tons per Hectare)													
Yield	2.69	2.69	2.69	2.08	2.41	2.44	2.46	2.49	2.53	2.57	2.61	2.64	2.68	2.71
	(Thousand Metric Tons)													
Production	70	70	70	50	56	58	61	64	67	70	73	76	78	79
Beginning Stocks	93	71	33	35	27	28	28	29	29	29	30	30	30	31
Domestic Supply	163	141	103	85	83	86	89	93	96	99	103	106	108	110
Consumption	215	210	215	215	227	237	250	258	266	275	284	293	302	311
Ending Stocks	71	33	35	27	28	28	29	29	29	30	30	30	31	31
Domestic Use	286	243	250	242	255	265	278	287	296	305	314	323	333	342
Net Trade	-123	-102	-147	-157	-172	-179	-190	-194	-200	-205	-211	-217	-225	-232

Table 56. Nicaragua Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	104	104	104	104	104	105	106	107	108	110	111	112	113	114
	(Metric Tons per Hectare)													
Yield	2.79	2.79	2.88	2.69	2.88	2.91	2.96	3.01	3.04	3.06	3.09	3.12	3.14	3.17
	(Thousand Metric Tons)													
Production	290	290	300	280	300	306	314	323	330	336	342	349	356	363
Beginning Stocks	136	150	148	155	149	156	157	158	158	159	160	161	162	163
Domestic Supply	426	440	448	435	449	462	471	481	488	495	503	510	518	526
Consumption	365	355	385	390	396	401	406	411	416	422	427	433	439	444
Ending Stocks	150	148	155	149	156	157	158	158	159	160	161	162	163	164
Domestic Use	515	503	540	539	552	558	564	569	576	582	589	595	602	608
Net Trade	-89	-63	-92	-104	-103	-96	-93	-89	-88	-87	-86	-85	-84	-82

Table 57. Panama Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	84	87	83	65	75	82	85	87	87	88	88	88	88	88
							(Metric Tons per Hectare)							
Yield	2.49	2.37	2.48	2.31	2.50	2.53	2.57	2.60	2.62	2.64	2.66	2.68	2.71	2.73
							(Thousand Metric Tons)							
Production	209	206	206	150	189	207	220	225	228	231	233	236	238	240
Beginning Stocks	44	59	85	71	41	52	53	54	55	56	57	58	58	59
Domestic Supply	253	265	291	221	230	259	273	279	283	287	290	293	297	299
Consumption	260	290	300	310	314	319	325	330	335	340	345	350	355	358
Ending Stocks	59	85	71	41	52	53	54	55	56	57	58	58	59	60
Domestic Use	319	375	371	351	366	373	379	385	391	397	403	409	414	418
Net Trade	-66	-110	-80	-130	-137	-114	-106	-106	-108	-110	-113	-115	-117	-119

Table 58. Chile Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	21	30	26	25	28	29	30	30	31	31	31	31	31	31
							(Metric Tons per Hectare)							
Yield	3.90	4.13	4.31	4.16	4.31	4.36	4.45	4.51	4.57	4.62	4.67	4.71	4.76	4.80
							(Thousand Metric Tons)							
Production	82	124	112	104	120	125	133	137	140	142	144	145	146	148
Beginning Stocks	56	39	64	61	55	68	69	69	70	71	72	73	74	75
Domestic Supply	138	163	176	165	175	193	201	207	210	213	216	218	220	223
Consumption	235	272	280	285	289	292	297	301	306	312	318	325	332	338
Ending Stocks	39	64	61	55	68	69	69	70	71	72	73	74	75	76
Domestic Use	274	336	341	340	358	361	366	371	377	384	391	399	407	415
Net Trade	-136	-173	-165	-175	-183	-167	-165	-165	-167	-171	-176	-181	-186	-192

Table 59. Paraguay Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	140	150	165	160	164	168	171	175	179	182	185	186	186	186
							(Metric Tons per Hectare)							
Yield	4.42	4.35	4.47	4.39	4.49	4.60	4.71	4.80	4.88	4.96	5.04	5.11	5.19	5.26
							(Thousand Metric Tons)							
Production	619	653	737	703	737	771	807	842	872	903	931	952	967	980
Beginning Stocks	233	247	191	160	105	114	115	112	101	88	77	68	60	55
Domestic Supply	852	900	928	863	842	885	922	954	973	991	1,008	1,021	1,027	1,034
Consumption	70	60	60	60	64	68	71	72	74	76	77	79	79	78
Ending Stocks	247	191	160	105	114	115	112	101	88	77	68	60	55	53
Domestic Use	317	251	220	165	178	183	183	173	162	153	145	139	134	131
Net Trade	535	649	708	698	663	702	739	781	811	839	863	882	893	903

Table 60. Peru Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	420	422	435	415	432	438	443	446	449	451	454	456	460	463
							(Metric Tons per Hectare)							
Yield	5.20	4.97	4.94	5.18	5.16	5.24	5.31	5.35	5.42	5.48	5.54	5.60	5.66	5.72
							(Thousand Metric Tons)							
Production	2,185	2,097	2,150	2,150	2,229	2,296	2,351	2,387	2,434	2,474	2,513	2,555	2,603	2,649
Beginning Stocks	273	238	223	157	177	223	273	300	300	311	325	335	342	354
Domestic Supply	2,458	2,335	2,373	2,307	2,406	2,519	2,624	2,687	2,734	2,785	2,838	2,890	2,945	3,003
Consumption	2,400	2,430	2,400	2,400	2,463	2,511	2,562	2,602	2,630	2,660	2,694	2,731	2,769	2,808
Ending Stocks	238	223	157	177	223	273	300	300	311	325	335	342	354	366
Domestic Use	2,638	2,653	2,557	2,577	2,686	2,784	2,862	2,902	2,941	2,985	3,029	3,073	3,123	3,174
Net Trade	-180	-318	-184	-270	-280	-265	-238	-215	-207	-199	-191	-184	-178	-171

Table 61. Madagascar Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	1,475	1,425	1,500	1,500	1,520	1,537	1,554	1,571	1,588	1,605	1,622	1,640	1,658	1,676
							(Metric Tons per Hectare)							
Yield	1.66	1.39	1.71	1.79	1.77	1.77	1.79	1.81	1.84	1.86	1.88	1.90	1.93	1.95
							(Thousand Metric Tons)							
Production	2,442	1,984	2,560	2,688	2,693	2,717	2,785	2,850	2,917	2,984	3,053	3,122	3,194	3,266
Beginning Stocks	0	0	0	0	0	6	8	9	9	9	9	9	10	9
Domestic Supply	2,442	1,984	2,560	2,688	2,693	2,723	2,793	2,859	2,925	2,993	3,061	3,132	3,203	3,275
Consumption	2,741	2,541	2,910	3,088	3,189	3,300	3,381	3,466	3,526	3,621	3,701	3,779	3,858	3,937
Ending Stocks	0	0	0	0	6	8	9	9	9	9	9	10	9	11
Domestic Use	2,741	2,541	2,910	3,088	3,196	3,308	3,390	3,474	3,535	3,630	3,710	3,789	3,867	3,948
Net Trade	-299	-557	-350	-400	-503	-585	-596	-615	-609	-637	-649	-657	-664	-673

Table 62. Malawi Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	65	65	65	65	66	66	66	66	66	67	67	67	68	69
							(Metric Tons per Hectare)							
Yield	1.28	1.28	1.28	1.28	1.33	1.35	1.36	1.38	1.39	1.40	1.42	1.43	1.45	1.46
							(Thousand Metric Tons)							
Production	83	83	83	83	88	89	90	91	92	93	95	96	98	100
Beginning Stocks	0	0	0	0	0	1	1	1	1	1	1	2	2	2
Domestic Supply	83	83	83	83	88	90	91	93	94	95	96	98	100	102
Consumption	98	98	98	98	104	108	113	118	123	129	134	140	146	152
Ending Stocks	0	0	0	0	1	1	1	1	1	1	2	2	2	2
Domestic Use	98	98	98	98	105	109	114	120	125	130	136	142	148	154
Net Trade	-15	-15	-15	-15	-17	-19	-23	-27	-31	-36	-40	-44	-48	-53

Table 63. Zambia Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	30	30	30	30	31	32	33	34	35	35	35	35	35	35
							(Metric Tons per Hectare)							
Yield	1.00	1.00	1.00	1.00	1.07	1.10	1.13	1.15	1.17	1.20	1.22	1.25	1.27	1.30
							(Thousand Metric Tons)							
Production	30	30	30	30	33	35	37	39	41	42	43	44	45	46
Beginning Stocks	0	0	0	0	0	1	1	1	1	1	1	1	1	1
Domestic Supply	30	30	30	30	33	36	38	40	42	43	44	45	46	47
Consumption	40	40	40	40	43	48	52	56	59	61	63	66	68	71
Ending Stocks	0	0	0	0	1	1	1	1	1	1	1	1	1	1
Domestic Use	40	40	40	40	44	49	53	57	60	62	64	67	70	72
Net Trade	-10	-10	-10	-10	-11	-12	-15	-17	-18	-19	-20	-22	-23	-25

Table 64. Rwanda Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	16	16	16	16	17	18	19	20	21	22	23	23	23	23
							(Metric Tons per Hectare)							
Yield	3.63	3.63	3.63	3.63	3.71	3.75	3.80	3.85	3.90	3.95	3.99	4.04	4.09	4.14
							(Thousand Metric Tons)							
Production	58	58	58	58	63	67	72	76	81	86	90	93	94	95
Beginning Stocks	0	0	0	0	0	1	1	1	1	1	2	2	2	2
Domestic Supply	58	58	58	58	63	68	73	77	82	87	92	95	96	97
Consumption	98	98	98	98	104	109	117	123	128	134	138	143	146	150
Ending Stocks	0	0	0	0	1	1	1	1	1	2	2	2	2	2
Domestic Use	98	98	98	98	105	110	118	124	130	135	140	145	148	152
Net Trade	-40	-40	-40	-40	-42	-42	-45	-47	-48	-48	-48	-50	-52	-55

Table 65. Uganda Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	96	98	98	98	99	101	104	106	108	107	104	103	100	99
							(Metric Tons per Hectare)							
Yield	1.66	1.73	1.62	1.62	1.64	1.65	1.67	1.68	1.70	1.71	1.73	1.74	1.76	1.77
							(Thousand Metric Tons)							
Production	159	170	159	159	162	166	174	179	183	184	180	179	176	174
Beginning Stocks	0	0	0	0	0	1	1	2	2	2	3	3	4	4
Domestic Supply	159	170	159	159	162	167	175	180	185	186	183	182	180	179
Consumption	234	240	244	254	264	279	299	318	336	361	385	405	420	433
Ending Stocks	0	0	0	0	1	1	2	2	2	3	3	4	4	4
Domestic Use	234	240	244	254	265	280	301	320	339	364	388	409	424	437
Net Trade	-75	-70	-85	-95	-103	-113	-126	-139	-154	-177	-205	-227	-244	-259

Table 66. Haiti Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	56	56	60	66	69	70	71	71	72	72	72	73	73	73
							(Metric Tons per Hectare)							
Yield	1.38	1.36	1.08	1.14	1.21	1.22	1.24	1.25	1.26	1.27	1.28	1.29	1.30	1.31
							(Thousand Metric Tons)							
Production	77	76	65	75	83	86	88	89	90	91	93	94	95	96
Beginning Stocks	73	75	75	50	55	58	59	60	61	62	63	64	65	66
Domestic Supply	150	151	140	125	138	144	147	149	151	153	156	158	160	163
Consumption	545	570	560	570	581	590	600	610	620	631	641	651	661	670
Ending Stocks	75	75	50	55	58	59	60	61	62	63	64	65	66	67
Domestic Use	620	645	610	625	639	649	660	671	682	694	705	716	727	737
Net Trade	-470	-494	-470	-500	-501	-505	-513	-522	-531	-541	-549	-558	-567	-575

Table 67. Venezuela Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	125	135	86	75	80	85	89	93	96	99	101	103	105	106
							(Metric Tons per Hectare)							
Yield	2.44	2.04	1.98	1.71	1.99	2.01	2.03	2.05	2.06	2.08	2.09	2.11	2.13	2.14
							(Thousand Metric Tons)							
Production	305	275	170	128	159	170	180	190	198	206	212	218	223	227
Beginning Stocks	57	42	53	93	41	59	60	62	64	67	70	74	77	80
Domestic Supply	362	317	223	221	200	229	240	251	262	273	282	292	300	307
Consumption	630	640	680	660	659	667	682	701	725	750	779	807	835	861
Ending Stocks	42	53	93	41	59	60	62	64	67	70	74	77	80	83
Domestic Use	672	693	773	701	718	727	744	765	792	820	853	884	915	944
Net Trade	-310	-376	-550	-480	-518	-498	-503	-513	-530	-547	-571	-592	-615	-637

Table 68. Guyana Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	150	172	166	175	190	204	216	225	234	241	248	253	258	263
							(Metric Tons per Hectare)							
Yield	3.57	3.66	3.78	3.79	3.83	3.84	3.85	3.87	3.88	3.90	3.93	3.97	4.00	4.04
							(Thousand Metric Tons)							
Production	535	630	627	663	729	784	831	872	908	940	974	1,005	1,033	1,060
Beginning Stocks	185	119	114	142	115	147	149	150	150	148	149	149	149	150
Domestic Supply	720	749	741	805	844	931	980	1,021	1,057	1,088	1,123	1,153	1,182	1,211
Consumption	170	180	185	190	195	199	203	207	212	218	223	227	230	232
Ending Stocks	119	114	142	115	147	149	150	150	148	149	149	149	150	151
Domestic Use	289	294	327	305	343	348	353	357	361	367	372	376	381	383
Net Trade	431	455	414	500	502	583	627	664	697	721	751	777	802	827

Table 69. Sri Lanka Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
							(Thousand Hectares)							
Area Harvested	686	769	975	1,000	1,001	1,002	1,003	1,004	1,005	1,005	1,006	1,007	1,007	1,008
							(Metric Tons per Hectare)							
Yield	2.97	2.92	3.21	3.06	3.07	3.09	3.10	3.11	3.13	3.14	3.15	3.17	3.18	3.19
							(Thousand Metric Tons)							
Production	2,034	2,248	3,131	3,060	3,077	3,094	3,111	3,127	3,143	3,158	3,173	3,188	3,203	3,217
Beginning Stocks	847	432	316	512	587	535	538	541	543	547	552	555	558	561
Domestic Supply	2,881	2,680	3,447	3,572	3,664	3,629	3,649	3,668	3,686	3,706	3,725	3,743	3,761	3,778
Consumption	2,950	2,850	2,950	3,000	3,048	3,065	3,079	3,090	3,112	3,136	3,148	3,165	3,179	3,188
Ending Stocks	432	316	512	587	535	538	541	543	547	552	555	558	561	563
Domestic Use	3,382	3,166	3,462	3,587	3,583	3,603	3,620	3,633	3,659	3,688	3,703	3,723	3,740	3,750
Net Trade	-501	-486	-15	-15	82	26	29	35	27	18	22	20	21	28

WORLD REGIONAL RICE SUPPLY AND USE

Table 70. Africa Region Total Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	13,910	13,851	13,865	14,177	14,220	14,343	14,487	14,633	14,796	14,933	15,059	15,196	15,335	15,469
	(Metric Tons per Hectare)													
Yield	1.60	1.57	1.55	1.63	1.67	1.70	1.73	1.75	1.78	1.80	1.82	1.84	1.87	1.89
	(Thousand Metric Tons)													
Production	22,306	21,763	21,447	23,122	23,736	24,383	25,014	25,661	26,292	26,860	27,419	27,999	28,603	29,228
Beginning Stocks	3,748	4,657	4,798	4,110	3,931	3,993	4,086	4,180	4,249	4,297	4,304	4,275	4,217	4,101
Domestic Supply	26,054	26,420	26,245	27,232	27,667	28,375	29,100	29,841	30,541	31,157	31,723	32,274	32,820	33,329
Consumption	36,153	36,731	38,501	39,616	41,534	42,927	44,468	46,024	47,567	49,322	50,846	52,400	53,730	54,948
Ending Stocks	4,657	4,798	4,110	3,931	3,993	4,086	4,180	4,249	4,297	4,304	4,275	4,217	4,101	3,939
Domestic Use	40,810	41,529	42,611	43,547	45,526	47,014	48,648	50,273	51,864	53,627	55,122	56,617	57,831	58,887
Net Trade	-14,756	-15,109	-16,366	-16,315	-17,859	-18,638	-19,548	-20,432	-21,323	-22,470	-23,398	-24,343	-25,011	-25,558

Table 71. African Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	13,198	13,118	13,126	13,449	13,564	13,719	13,876	14,024	14,186	14,320	14,441	14,576	14,713	14,845
	(Metric Tons per Hectare)													
Yield	1.66	1.62	1.60	1.68	1.72	1.75	1.77	1.80	1.82	1.85	1.87	1.89	1.91	1.94
	(Thousand Metric Tons)													
Production	21,864	21,262	20,941	22,637	23,326	23,981	24,616	25,261	25,887	26,449	27,001	27,574	28,173	28,793
Beginning Stocks	3,694	4,627	4,712	4,033	3,844	3,895	3,987	4,081	4,150	4,198	4,203	4,172	4,112	3,995
Domestic Supply	25,558	25,889	25,653	26,670	27,170	27,876	28,603	29,342	30,037	30,647	31,204	31,746	32,286	32,788
Consumption	33,170	33,889	35,400	36,488	38,007	39,347	40,885	42,427	43,995	45,612	47,031	48,505	49,809	51,046
Ending Stocks	4,627	4,712	4,033	3,844	3,895	3,987	4,081	4,150	4,198	4,203	4,172	4,112	3,995	3,834
Domestic Use	37,797	38,601	39,433	40,332	41,902	43,334	44,966	46,576	48,193	49,815	51,203	52,617	53,804	54,880
Net Trade	-12,239	-12,712	-13,780	-13,662	-14,732	-15,459	-16,362	-17,235	-18,156	-19,168	-19,999	-20,870	-21,519	-22,092

Table 72. African Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	712	733	739	728	656	624	612	609	610	613	617	620	622	625
	(Metric Tons per Hectare)													
Yield	0.62	0.68	0.68	0.67	0.63	0.64	0.65	0.66	0.66	0.67	0.68	0.68	0.69	0.70
	(Thousand Metric Tons)													
Production	442	501	506	485	410	402	398	400	405	411	418	424	430	436
Beginning Stocks	54	30	86	77	87	98	99	99	99	99	101	103	105	105
Domestic Supply	496	531	592	562	497	500	497	499	504	510	519	527	535	541
Consumption	2,983	2,842	3,101	3,128	3,527	3,581	3,584	3,597	3,572	3,711	3,815	3,895	3,921	3,902
Ending Stocks	30	86	77	87	98	99	99	99	99	101	103	105	105	105
Domestic Use	3,013	2,928	3,178	3,215	3,625	3,679	3,683	3,696	3,671	3,812	3,919	4,000	4,027	4,007
Net Trade	-2,517	-2,397	-2,586	-2,653	-3,128	-3,180	-3,186	-3,197	-3,167	-3,302	-3,399	-3,473	-3,492	-3,465

Table 73. Western Hemisphere Region Total Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	6,184	5,976	5,795	5,505	5,695	5,741	5,770	5,790	5,803	5,812	5,814	5,811	5,808	5,813
	(Metric Tons per Hectare)													
Yield	4.17	4.06	4.24	4.19	4.22	4.26	4.30	4.33	4.36	4.40	4.43	4.46	4.49	4.52
	(Thousand Metric Tons)													
Production	25,812	24,282	24,575	23,061	24,057	24,457	24,808	25,081	25,327	25,551	25,742	25,908	26,087	26,298
Beginning Stocks	3,977	4,359	3,785	3,832	3,267	3,433	3,630	3,787	3,852	3,870	3,871	3,838	3,804	3,755
Domestic Supply	29,789	28,641	28,360	26,893	27,324	27,891	28,438	28,868	29,179	29,421	29,612	29,746	29,891	30,053
Consumption	23,768	23,854	24,252	23,929	24,317	24,567	24,774	25,034	25,312	25,617	25,902	26,125	26,312	26,425
Ending Stocks	4,359	3,785	3,832	3,267	3,433	3,631	3,787	3,852	3,870	3,871	3,838	3,804	3,755	3,766
Domestic Use	28,127	27,639	28,084	27,196	27,750	28,198	28,560	28,887	29,182	29,488	29,740	29,929	30,067	30,192
Net Trade	1,662	1,002	276	-303	-426	-307	-122	-19	-3	-67	-128	-183	-177	-138

Table 74. Western Hemisphere Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	5,658	5,452	5,254	4,995	5,170	5,210	5,235	5,254	5,266	5,275	5,277	5,275	5,272	5,277
	(Metric Tons per Hectare)													
Yield	4.36	4.21	4.41	4.36	4.39	4.42	4.46	4.49	4.53	4.56	4.60	4.63	4.66	4.70
	(Thousand Metric Tons)													
Production	24,679	22,972	23,191	21,767	22,704	23,050	23,353	23,612	23,844	24,065	24,251	24,415	24,589	24,798
Beginning Stocks	3,812	4,216	3,593	3,671	3,104	3,207	3,416	3,574	3,639	3,663	3,661	3,623	3,586	3,539
Domestic Supply	28,491	27,188	26,784	25,438	25,808	26,258	26,769	27,186	27,483	27,728	27,911	28,038	28,175	28,337
Consumption	22,369	22,344	22,669	22,404	22,686	22,863	23,056	23,265	23,527	23,811	24,074	24,280	24,477	24,606
Ending Stocks	4,216	3,593	3,671	3,104	3,207	3,415	3,574	3,639	3,663	3,660	3,623	3,585	3,539	3,552
Domestic Use	26,585	25,937	26,340	25,508	25,893	26,278	26,630	26,903	27,190	27,471	27,697	27,865	28,016	28,158
Net Trade	1,906	1,251	444	-70	-85	-20	139	282	293	257	214	173	159	179

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Table 75. Western Hemisphere Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	526	524	541	510	525	531	535	536	537	537	537	537	536	536
	(Metric Tons per Hectare)													
Yield	2.15	2.50	2.56	2.54	2.58	2.65	2.72	2.74	2.76	2.77	2.78	2.79	2.79	2.80
	(Thousand Metric Tons)													
Production	1,133	1,310	1,384	1,294	1,353	1,409	1,455	1,471	1,484	1,488	1,491	1,495	1,499	1,501
Beginning Stocks	165	143	192	161	163	226	215	213	213	207	211	215	218	216
Domestic Supply	1,298	1,453	1,576	1,455	1,516	1,636	1,670	1,684	1,697	1,695	1,702	1,710	1,717	1,717
Consumption	1,399	1,510	1,583	1,525	1,631	1,700	1,715	1,766	1,783	1,803	1,825	1,842	1,831	1,816
Ending Stocks	143	192	161	163	226	215	213	213	207	211	215	218	216	213
Domestic Use	1,542	1,702	1,744	1,688	1,857	1,915	1,928	1,979	1,989	2,013	2,040	2,060	2,048	2,029
Net Trade	-244	-249	-168	-233	-341	-280	-259	-295	-292	-318	-338	-350	-331	-312

Table 76. Asian Region Total Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	142,491	142,639	142,592	141,178	141,494	141,600	141,656	141,548	141,389	141,274	141,148	140,979	140,834	140,726
	(Metric Tons per Hectare)													
Yield	3.09	3.13	3.16	3.18	3.17	3.18	3.19	3.20	3.22	3.24	3.25	3.27	3.29	3.30
	(Thousand Metric Tons)													
Production	440,210	446,267	451,139	448,444	448,290	449,847	451,669	453,185	454,599	457,075	459,063	460,888	462,764	464,616
Beginning Stocks	133,423	139,531	152,717	165,312	168,722	170,350	171,130	171,520	171,022	169,425	167,648	165,439	162,823	160,092
Domestic Supply	573,633	585,798	603,856	613,756	617,012	620,198	622,799	624,705	625,621	626,500	626,711	626,327	625,587	624,708
Consumption	413,797	417,647	420,579	424,583	429,078	430,963	432,524	434,213	435,926	437,405	438,847	440,113	441,462	442,799
Ending Stocks	139,516	152,642	165,257	168,722	170,350	171,130	171,520	171,022	169,425	167,648	165,439	162,823	160,092	157,377
Domestic Use	553,313	570,289	585,836	593,305	599,428	602,093	604,044	605,235	605,351	605,053	604,286	602,936	601,554	600,176
Net Trade	20,320	15,509	18,020	20,451	17,584	18,105	18,755	19,470	20,270	21,447	22,425	23,392	24,033	24,533

Table 77. Asian Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	139,978	140,147	139,983	138,561	138,878	138,984	139,040	138,933	138,774	138,659	138,532	138,363	138,219	138,111
	(Metric Tons per Hectare)													
Yield	3.10	3.14	3.17	3.19	3.18	3.19	3.20	3.21	3.23	3.25	3.26	3.28	3.30	3.31
	(Thousand Metric Tons)													
Production	433,565	439,939	444,432	441,887	441,684	443,174	444,873	446,333	447,658	450,092	452,032	453,808	455,636	457,436
Beginning Stocks	133,044	139,182	152,465	165,059	168,504	169,986	170,795	171,184	170,684	169,086	167,308	165,098	162,481	159,753
Domestic Supply	566,609	579,121	596,897	606,946	610,188	613,160	615,668	617,517	618,342	619,178	619,340	618,907	618,117	617,189
Consumption	405,572	409,690	412,979	416,926	420,512	421,842	423,337	424,969	426,614	428,038	429,439	430,685	432,113	433,506
Ending Stocks	139,182	152,465	165,059	168,504	169,986	170,795	171,184	170,684	169,086	167,308	165,098	162,481	159,753	157,038
Domestic Use	544,754	562,155	578,038	585,430	590,497	592,637	594,521	595,653	595,700	595,346	594,537	593,166	591,866	590,544
Net Trade	21,855	16,966	18,859	21,516	19,691	20,523	21,147	21,864	22,642	23,832	24,803	25,741	26,252	26,644

Table 78. Asian Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	2,513	2,492	2,609	2,617	2,616	2,616	2,615	2,615	2,615	2,615	2,615	2,615	2,615	2,615
	(Metric Tons per Hectare)													
Yield	2.64	2.54	2.57	2.51	2.53	2.55	2.60	2.62	2.65	2.67	2.69	2.71	2.73	2.75
	(Thousand Metric Tons)													
Production	6,645	6,328	6,707	6,557	6,606	6,673	6,796	6,851	6,941	6,983	7,031	7,080	7,128	7,180
Beginning Stocks	369	334	177	198	218	365	335	337	338	339	340	341	341	340
Domestic Supply	7,014	6,662	6,884	6,755	6,824	7,038	7,131	7,188	7,279	7,322	7,372	7,421	7,469	7,520
Consumption	8,225	7,957	7,600	7,657	8,566	9,121	9,187	9,244	9,312	9,368	9,408	9,429	9,349	9,293
Ending Stocks	334	177	198	218	365	335	337	338	339	340	341	341	340	339
Domestic Use	8,559	8,134	7,798	7,875	8,931	9,457	9,524	9,582	9,651	9,708	9,749	9,770	9,688	9,631
Net Trade	-1,545	-1,472	-914	-1,120	-2,107	-2,419	-2,392	-2,394	-2,372	-2,386	-2,378	-2,349	-2,219	-2,112

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Table 79. European Region Total Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	443	434	417	424	423	426	428	429	430	430	432	433	435	437
	(Metric Tons per Hectare)													
Yield	4.73	4.70	4.71	4.75	4.69	4.75	4.78	4.82	4.84	4.88	4.91	4.93	4.96	4.99
	(Thousand Metric Tons)													
Production	2,097	2,038	1,966	2,013	1,985	2,021	2,045	2,065	2,083	2,100	2,120	2,138	2,159	2,181
Beginning Stocks	1,207	1,206	1,196	1,146	1,104	963	847	750	671	611	547	503	466	437
Domestic Supply	3,304	3,244	3,162	3,159	3,089	2,984	2,892	2,815	2,755	2,711	2,667	2,641	2,625	2,618
Consumption	3,734	3,806	3,916	3,925	3,992	4,018	4,039	4,059	4,076	4,105	4,126	4,153	4,182	4,201
Ending Stocks	1,206	1,196	1,146	1,104	963	847	750	671	611	547	503	466	437	419
Domestic Use	4,940	5,002	5,062	5,029	4,955	4,865	4,789	4,730	4,687	4,652	4,629	4,619	4,619	4,619
Net Trade	-1,636	-1,758	-1,900	-1,870	-1,867	-1,881	-1,897	-1,915	-1,933	-1,941	-1,962	-1,978	-1,994	-2,001

Table 80. European Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	440	431	414	421	420	423	425	426	427	427	429	430	432	434
	(Metric Tons per Hectare)													
Yield	4.74	4.71	4.72	4.76	4.70	4.76	4.79	4.83	4.85	4.89	4.92	4.94	4.97	5.00
	(Thousand Metric Tons)													
Production	2,087	2,028	1,956	2,003	1,975	2,011	2,035	2,055	2,073	2,090	2,110	2,128	2,148	2,170
Beginning Stocks	1,183	1,192	1,181	1,127	1,085	938	819	722	642	581	517	473	435	406
Domestic Supply	3,270	3,220	3,137	3,130	3,060	2,948	2,854	2,776	2,715	2,671	2,627	2,600	2,584	2,576
Consumption	3,600	3,696	3,790	3,795	3,841	3,853	3,868	3,885	3,900	3,926	3,944	3,969	3,996	4,014
Ending Stocks	1,192	1,181	1,127	1,085	938	819	722	642	581	517	473	435	406	387
Domestic Use	4,792	4,877	4,917	4,880	4,779	4,673	4,590	4,528	4,482	4,443	4,417	4,404	4,402	4,401
Net Trade	-1,522	-1,657	-1,780	-1,750	-1,719	-1,725	-1,736	-1,751	-1,766	-1,772	-1,790	-1,804	-1,818	-1,825

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Table 81. European Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	(Metric Tons per Hectare)													
Yield	3.33	3.33	3.33	3.33	3.34	3.36	3.39	3.42	3.44	3.46	3.49	3.51	3.53	3.56
	(Thousand Metric Tons)													
Production	10	10	10	10	10	10	10	10	10	10	11	11	11	11
Beginning Stocks	24	14	15	19	19	25	27	28	29	29	30	30	31	31
Domestic Supply	34	24	25	29	29	35	38	39	39	40	40	41	41	42
Consumption	134	110	126	130	151	165	171	173	176	179	182	184	186	187
Ending Stocks	14	15	19	19	25	27	28	29	29	30	30	31	31	31
Domestic Use	148	125	145	149	176	192	199	202	206	209	212	215	217	218
Net Trade	-114	-101	-120	-120	-147	-157	-161	-163	-166	-169	-172	-174	-176	-177

Table 82. Oceania Region total Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	82	61	5	5	33	46	55	58	58	57	57	57	57	57
	(Metric Tons per Hectare)													
Yield	7.09	7.49	8.80	7.20	7.92	7.97	8.05	8.15	8.26	8.37	8.48	8.60	8.71	8.82
	(Thousand Metric Tons)													
Production	581	457	44	36	261	371	439	469	476	480	487	489	496	506
Beginning Stocks	77	208	217	41	27	24	83	166	228	245	243	231	205	171
Domestic Supply	658	665	261	77	288	395	522	635	704	725	731	720	700	677
Consumption	434	432	400	380	389	399	412	430	443	453	464	465	468	473
Ending Stocks	208	217	41	27	24	83	166	228	245	243	231	205	171	143
Domestic Use	642	649	441	407	413	482	578	658	688	696	695	670	639	616
Net Trade	16	16	-180	-330	-125	-88	-56	-24	16	29	35	50	61	61

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Table 83. Oceania Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	82	61	5	5	33	46	55	58	58	57	57	57	57	57
	(Metric Tons per Hectare)													
Yield	7.09	7.49	8.80	7.20	7.92	7.97	8.05	8.15	8.26	8.37	8.48	8.60	8.71	8.82
	(Thousand Metric Tons)													
Production	581	457	44	36	261	371	439	469	476	480	487	489	496	506
Beginning Stocks	77	208	217	41	27	23	82	165	227	244	242	230	204	170
Domestic Supply	658	665	261	77	288	394	521	633	703	724	730	719	699	676
Consumption	385	380	350	330	338	346	358	375	386	395	405	406	408	411
Ending Stocks	208	217	41	27	23	82	165	227	244	242	230	204	170	142
Domestic Use	593	597	391	357	361	428	523	602	630	637	636	609	578	553
Net Trade	65	68	-130	-280	-73	-34	-1	32	72	86	94	110	121	122

Table 84. Oceania Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(Metric Tons per Hectare)													
Yield	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(Thousand Metric Tons)													
Production	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beginning Stocks	0	0	0	0	0	1	1	1	1	1	1	1	1	1
Domestic Supply	0	0	0	0	0	1	1	1	1	1	1	1	1	1
Consumption	49	52	50	50	51	53	54	56	57	58	59	59	60	61
Ending Stocks	0	0	0	0	1	1	1	1	1	1	1	1	1	1
Domestic Use	49	52	50	50	52	54	56	57	58	59	60	61	62	62
Net Trade	-49	-52	-50	-50	-52	-53	-54	-56	-57	-58	-59	-59	-60	-61

Table 85. World Total Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	163,107	162,958	162,671	161,286	161,865	162,156	162,396	162,458	162,476	162,507	162,510	162,477	162,469	162,503
	(Metric Tons per Hectare)													
Yield	3.01	3.04	3.07	3.08	3.08	3.09	3.10	3.12	3.13	3.15	3.17	3.18	3.20	3.22
	(Thousand Metric Tons)													
Production	490,996	494,797	499,161	496,666	498,329	501,079	503,975	506,460	508,778	512,066	514,831	517,422	520,109	522,830
Beginning Stocks	142,422	149,946	162,638	174,386	177,051	178,763	179,777	180,402	180,022	178,448	176,614	174,287	171,514	168,557
Domestic Supply	633,418	644,743	661,799	671,052	675,380	679,842	683,752	686,863	688,800	690,514	691,445	691,709	691,623	691,386
Consumption	477,025	481,568	486,730	491,508	499,310	502,874	506,218	509,760	513,325	516,902	520,186	523,256	526,154	528,846
Ending Stocks	149,946	162,638	174,386	177,051	178,763	179,778	180,403	180,022	178,448	176,615	174,287	171,515	168,557	165,644
Domestic Use	626,971	644,206	661,116	668,559	678,073	682,652	686,620	689,783	691,773	693,517	694,473	694,771	694,711	694,490
Residual	6,447	537	683	2,493	-2,694	-2,810	-2,869	-2,920	-2,973	-3,003	-3,028	-3,062	-3,088	-3,104

Table 86. World Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	159,356	159,209	158,782	157,431	158,065	158,382	158,631	158,694	158,711	158,738	158,738	158,702	158,692	158,724
	(Metric Tons per Hectare)													
Yield	3.03	3.06	3.09	3.10	3.10	3.11	3.12	3.14	3.15	3.17	3.19	3.20	3.22	3.24
	(Thousand Metric Tons)													
Production	482,776	486,658	490,564	488,330	489,950	492,586	495,316	497,730	499,938	503,175	505,880	508,414	511,043	513,703
Beginning Stocks	141,810	149,425	162,168	173,931	176,564	178,049	179,100	179,724	179,342	177,773	175,932	173,596	170,818	167,863
Domestic Supply	624,586	636,083	652,732	662,261	666,514	670,635	674,416	677,454	679,280	680,948	681,812	682,010	681,861	681,567
Consumption	465,096	469,999	475,188	479,943	485,384	488,250	491,504	494,921	498,423	501,781	504,893	507,843	510,803	513,584
Ending Stocks	149,425	162,168	173,931	176,564	178,049	179,099	179,724	179,342	177,773	175,931	173,596	170,818	167,863	164,954
Domestic Use	614,521	632,167	649,119	656,507	663,432	667,349	671,229	674,262	676,196	677,712	678,490	678,661	678,666	678,538
Net Trade	10,065	3,916	3,613	5,754	3,082	3,285	3,187	3,192	3,084	3,236	3,322	3,349	3,195	3,029

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Table 87. World Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested		3,751	3,749	3,889	3,855	3,799	3,774	3,765	3,764	3,765	3,769	3,773	3,775	3,777
	(Metric Tons per Hectare)													
Yield		2.19	2.17	2.21	2.16	2.21	2.25	2.30	2.32	2.35	2.36	2.37	2.39	2.40
	(Thousand Metric Tons)													
Production		8,220	8,139	8,597	8,336	8,379	8,495	8,659	8,733	8,841	8,893	8,951	9,010	9,127
Beginning Stocks		612	521	470	455	487	715	678	678	680	675	683	691	696
Domestic Supply		8,832	8,660	9,067	8,791	8,866	9,210	9,337	9,411	9,521	9,568	9,634	9,700	9,821
Consumption		11,929	11,569	11,542	11,565	13,926	14,620	14,711	14,836	14,899	15,117	15,289	15,409	15,348
Ending Stocks		521	470	455	487	715	678	678	680	675	683	691	696	689
Domestic Use		12,450	12,039	11,997	12,052	14,641	15,298	15,389	15,516	15,574	15,800	15,980	16,105	16,042
Net Trade		-3,618	-3,379	-2,930	-3,261	-5,776	-6,088	-6,053	-6,105	-6,053	-6,233	-6,346	-6,405	-6,127

Table 88. ECOWAS-7* Region Total Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	535	522	520	520	526	534	540	543	544	550	558	572	584	599
	(Metric Tons per Hectare)													
Yield	1.37	1.28	1.36	1.36	1.38	1.40	1.42	1.43	1.44	1.49	1.51	1.54	1.57	1.61
	(Thousand Metric Tons)													
Production	731	670	707	706	723	748	765	777	786	817	840	879	919	965
Beginning Stocks	35	69	85	77	80	82	84	86	88	90	91	92	92	93
Domestic Supply	766	739	792	783	803	829	849	863	874	907	931	971	1,012	1,058
Consumption	2,589	2,805	2,992	3,070	3,261	3,503	3,697	3,882	4,099	4,265	4,402	4,545	4,682	4,826
Ending Stocks	69	85	77	80	82	84	86	88	90	91	92	92	93	94
Domestic Use	2,658	2,890	3,069	3,150	3,342	3,587	3,784	3,969	4,189	4,356	4,493	4,637	4,775	4,920
Net Trade	-1,892	-2,151	-2,277	-2,367	-2,539	-2,758	-2,934	-3,106	-3,315	-3,449	-3,563	-3,667	-3,763	-3,862

*(Benin, Burkina, Gambia, Guinea-Bissau, Niger, Togo, Cabo Verde); these West African countries are modeled as a group in AGRM

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Table 89. ECOWAS-8* Region Total Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	8,242	8,380	8,585	8,610	8,678	8,777	8,884	8,978	9,079	9,152	9,209	9,272	9,334	9,387
	(Metric Tons per Hectare)													
Yield	1.34	1.38	1.38	1.40	1.43	1.46	1.49	1.52	1.54	1.56	1.58	1.60	1.62	1.65
	(Thousand Metric Tons)													
Production	11,071	11,531	11,867	12,038	12,399	12,824	13,215	13,607	13,975	14,252	14,533	14,818	15,135	15,451
Beginning Stocks	2,638	2,983	2,877	2,687	2,360	2,298	2,273	2,278	2,292	2,319	2,344	2,366	2,393	2,428
Domestic Supply	13,709	14,514	14,744	14,725	14,759	15,122	15,488	15,885	16,267	16,571	16,877	17,183	17,528	17,879
Consumption	17,556	18,347	19,017	19,530	20,314	20,923	21,661	22,450	23,249	24,076	24,831	25,643	26,369	27,006
Ending Stocks	2,983	2,877	2,687	2,360	2,298	2,273	2,278	2,292	2,319	2,344	2,366	2,393	2,428	2,457
Domestic Use	20,539	21,224	21,704	21,890	22,611	23,196	23,939	24,742	25,568	26,420	27,197	28,035	28,797	29,463
Net Trade	-6,830	-6,710	-6,960	-7,165	-7,852	-8,075	-8,450	-8,857	-9,301	-9,849	-10,320	-10,852	-11,269	-11,584

** (Cote d'Ivoire, Ghana, Guinea, Liberia, Mali, Nigeria, Senegal, Sierra Leone); these West African countries are modeled as individual countries in AGRM

Table 90. ECOWAS Region Total Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Thousand Hectares)													
Area Harvested	8,777	8,902	9,105	9,130	9,204	9,311	9,424	9,521	9,624	9,701	9,767	9,844	9,919	9,986
	(Metric Tons per Hectare)													
Yield	1.34	1.37	1.38	1.40	1.43	1.46	1.48	1.51	1.53	1.55	1.57	1.59	1.62	1.64
	(Thousand Metric Tons)													
Production	11,802	12,201	12,574	12,744	13,122	13,572	13,980	14,384	14,761	15,069	15,372	15,697	16,055	16,416
Beginning Stocks	2,673	3,052	2,962	2,764	2,440	2,379	2,358	2,364	2,380	2,409	2,435	2,457	2,485	2,521
Domestic Supply	14,475	15,253	15,536	15,508	15,562	15,951	16,338	16,748	17,141	17,478	17,807	18,154	18,540	18,937
Consumption	20,145	21,152	22,009	22,600	23,574	24,426	25,358	26,332	27,348	28,341	29,233	30,188	31,051	31,832
Ending Stocks	3,052	2,962	2,764	2,440	2,379	2,358	2,364	2,380	2,409	2,435	2,457	2,485	2,521	2,551
Domestic Use	23,197	24,114	24,773	25,040	25,954	26,783	27,722	28,711	29,757	30,776	31,690	32,673	33,572	34,383
Net Trade	-8,722	-8,861	-9,237	-9,532	-10,391	-10,832	-11,384	-11,963	-12,617	-13,298	-13,882	-14,519	-15,032	-15,447

Table 91. Projected Milled Rice Yields per Hectare for Selected Countries and the World, 2016–2029

Country	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Metric Tons per Hectare)													
Argentina	4.2	4.5	4.2	4.3	4.4	4.4	4.5	4.6	4.6	4.7	4.8	4.9	4.9	5.0
Australia	7.1	7.5	8.8	7.2	7.9	8.0	8.0	8.1	8.3	8.4	8.5	8.6	8.7	8.8
Bangladesh	2.9	2.9	3.0	3.0	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.3
Brazil	4.2	4.2	4.2	4.3	4.1	4.1	4.2	4.2	4.2	4.3	4.3	4.3	4.3	4.4
Brunei	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cambodia	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.0	2.1
Cameroon	0.8	0.8	0.8	0.8	0.9	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2
Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
China	4.8	4.8	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Colombia	3.3	3.0	3.4	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Egypt	5.6	5.6	6.1	5.7	6.0	6.1	6.2	6.3	6.4	6.5	6.5	6.6	6.7	6.7
EU-28	4.7	4.7	4.7	4.8	4.7	4.8	4.8	4.8	4.9	4.9	4.9	4.9	5.0	5.0
Ghana	1.7	1.7	1.7	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
Guinea	0.9	0.8	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.3	1.3
Hong Kong	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
India	2.5	2.6	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.8
Indonesia	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2
Iran	3.2	3.5	3.5	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.7	3.7	3.7
Iraq	2.2	2.5	2.5	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Cote d'Ivoire	1.5	1.6	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.8
Japan	5.1	5.0	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Kenya	2.3	1.8	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.9	2.9	2.9	2.9	3.0
Lao PDR	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.3
Liberia	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Malaysia	2.6	2.6	2.6	2.6	2.7	2.7	2.8	2.8	2.9	2.9	2.9	2.9	3.0	3.0
Mali	2.2	2.3	2.3	2.2	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.5	2.6	2.6
Mexico	4.4	4.5	4.4	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.6	4.6
Mozambique	0.6	0.7	0.9	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9
Myanmar	1.8	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.1	2.1
Nigeria	1.4	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5
Pakistan	2.5	2.7	2.5	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	2.9
Philippines	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.8
Saudi Arabia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Senegal	2.3	2.5	2.7	2.7	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9	3.0
Sierra Leone	1.0	1.4	1.1	1.1	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.5	1.6	1.6
Singapore	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Africa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Korea	5.4	5.3	5.2	5.1	5.3	5.3	5.4	5.4	5.4	5.5	5.5	5.5	5.5	5.5
Taiwan	4.4	5.0	4.5	4.5	4.5	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Tanzania	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	2.0

Table 92. Continued.

Country	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Metric Tons per Hectare)													
Thailand	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
Turkey	5.1	5.3	6.1	6.1	6.1	6.2	6.3	6.3	6.4	6.4	6.5	6.6	6.6	6.7
United States	5.7	5.9	6.0	5.9	6.0	6.1	6.1	6.2	6.2	6.3	6.4	6.4	6.5	6.5
Uruguay	6.0	5.4	5.7	5.8	5.9	6.0	6.0	6.1	6.2	6.3	6.3	6.4	6.5	6.6
Vietnam	3.6	3.6	3.6	3.7	3.8	3.8	3.9	3.9	3.9	4.0	4.0	4.0	4.1	4.1
Ecowas 7	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.6	1.6
Madagascar	1.7	1.4	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9
Malawi	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5
Zambia	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.3	1.3
Rwanda	3.6	3.6	3.6	3.6	3.7	3.7	3.8	3.8	3.9	3.9	4.0	4.0	4.1	4.1
Uganda	1.7	1.7	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8
Cuba	2.4	2.3	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Costa Rica	2.8	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Dominican Rep.	3.4	3.3	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.7	3.7	3.7	3.7	3.7
Guatemala	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4
Honduras	2.7	2.7	2.7	2.1	2.4	2.4	2.5	2.5	2.5	2.6	2.6	2.6	2.7	2.7
Nicaragua	2.8	2.8	2.9	2.7	2.9	2.9	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.2
Panama	2.5	2.4	2.5	2.3	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7
Chile	3.9	4.1	4.3	4.2	4.3	4.4	4.4	4.5	4.6	4.6	4.7	4.7	4.8	4.8
Paraguay	4.4	4.4	4.5	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.0	5.1	5.2	5.3
Peru	5.2	5.0	4.9	5.2	5.2	5.2	5.3	5.3	5.4	5.5	5.5	5.6	5.7	5.7
Guyana	3.6	3.7	3.8	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9	4.0	4.0	4.0
Haiti	1.4	1.4	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3
Venezuela	2.4	2.0	2.0	1.7	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1
Sri Lanka	3.0	2.9	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2
Rest of World	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4
World	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2

Table 92. Projected per Capita Rice Use for Selected Countries and the World, 2016–2029

Country	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Kilograms)													
Argentina	12.2	11.6	11.7	11.7	11.9	11.9	12.0	12.1	12.2	12.2	12.2	12.3	12.3	12.2
Australia	15.9	15.5	14.1	13.1	13.2	13.4	13.7	14.2	14.5	14.7	14.9	14.8	14.7	14.7
Bangladesh	221.6	220.4	219.4	219.6	219.6	219.4	219.2	219.1	219.0	218.0	217.5	217.1	216.5	216.4
Brazil	38.1	37.3	35.8	35.5	35.4	35.3	35.2	35.1	35.1	35.1	35.1	35.1	35.0	34.9
Brunei	100.0	87.2	118.9	117.7	118.2	119.3	119.4	120.2	121.6	123.8	124.8	126.2	127.0	127.4
Cambodia	253.7	262.3	258.5	260.8	260.4	260.6	261.1	262.5	263.0	263.6	263.9	263.7	264.1	264.3
Cameroon	33.5	34.7	35.5	35.6	36.5	36.7	36.8	37.1	37.3	37.8	38.2	38.4	38.7	39.3
Canada	9.8	9.9	10.5	10.3	10.6	10.6	10.7	10.7	10.8	10.9	11.0	11.1	11.2	11.2
China	100.3	100.4	100.4	100.4	100.1	99.9	99.8	99.6	99.5	99.4	99.3	99.2	99.1	99.0
<i>Food</i>	84.5	84.6	84.5	84.4	84.1	83.9	83.7	83.5	83.3	83.1	82.9	82.7	82.5	82.3
<i>Feed</i>	9.0	9.1	9.2	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.2	10.3	10.4	10.5
<i>Seed/Residual</i>	6.8	6.8	6.7	6.6	6.5	6.4	6.4	6.3	6.3	6.3	6.2	6.2	6.2	6.2
Colombia	36.3	36.8	37.1	37.1	37.3	37.4	37.4	37.4	37.6	37.6	38.2	38.5	38.8	38.8
Cote d'Ivoire	109.1	108.4	105.7	103.0	106.3	106.8	108.0	109.2	110.8	112.2	113.6	115.2	116.6	117.1
Egypt	45.5	43.5	42.2	43.3	43.2	42.7	42.7	42.8	42.9	43.0	43.0	43.0	43.0	43.0
EU-28	8.1	8.3	8.5	8.5	8.6	8.7	8.7	8.7	8.8	8.8	8.9	9.0	9.0	9.1
Ghana	36.9	38.5	45.4	47.8	48.8	49.0	49.8	50.0	50.5	51.5	52.6	53.6	54.1	54.6
Guinea	166.1	169.9	177.2	185.1	189.9	191.3	192.1	195.4	198.1	201.7	204.0	208.3	209.7	211.3
Hong Kong	46.1	44.6	46.8	47.1	48.2	48.4	49.0	49.5	50.0	50.6	51.1	51.5	51.9	52.2
India	72.4	73.7	73.2	75.0	74.9	74.2	73.5	73.0	72.5	72.3	72.0	71.8	71.7	71.7
Indonesia	144.5	144.0	141.6	139.3	139.2	139.0	138.8	138.7	138.6	138.3	138.2	137.4	137.0	136.5
Iran	38.3	39.0	39.1	39.8	39.9	40.2	40.5	40.6	40.7	40.7	40.8	41.0	41.5	41.7
Iraq	32.1	34.6	33.8	35.6	35.5	35.3	35.1	35.0	34.2	33.5	33.3	33.2	33.2	33.2
Japan	68.3	67.4	66.8	66.2	65.6	65.3	65.1	64.9	64.8	64.6	64.6	64.6	64.5	64.5
Kenya	13.7	14.9	16.0	16.5	17.3	17.8	18.3	18.9	19.7	20.4	21.1	21.7	21.9	22.1
Lao PDR	303.8	302.0	276.1	279.0	290.2	292.8	295.3	296.5	297.9	299.2	300.9	302.1	303.0	303.4
Liberia	99.2	108.5	110.0	111.5	113.5	113.1	113.8	115.4	117.7	119.3	120.5	122.1	123.1	123.2
Malaysia	89.6	88.4	87.2	86.9	86.6	85.3	85.2	85.0	84.8	84.5	84.2	83.9	83.7	83.2
Mali	108.5	110.7	115.3	117.0	116.9	116.5	116.8	118.4	119.9	122.3	123.1	125.4	126.7	127.7
Mexico	7.4	7.3	7.3	7.3	7.6	7.6	7.7	7.7	7.8	7.9	7.9	8.1	8.1	8.1
Mozambique	33.3	31.8	32.2	31.5	31.5	31.9	32.4	32.6	33.5	34.5	35.4	35.4	35.5	35.5
Myanmar	188.5	191.1	193.6	195.2	195.2	193.9	193.0	192.8	192.6	192.5	192.6	192.6	192.5	192.4
Nigeria	36.0	36.1	35.7	34.8	35.3	35.4	35.9	36.3	36.5	36.7	36.8	36.8	36.7	36.3
Pakistan	15.2	16.4	15.5	15.2	15.6	15.5	15.4	15.3	15.2	15.2	15.1	15.0	14.9	14.7
Philippines	124.4	126.0	132.2	133.2	134.0	133.5	133.4	133.1	132.9	132.8	132.8	132.6	132.3	132.2

Table 93. Continued.

Country	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Kilograms)													
Saudi Arabia	41.6	40.8	40.6	40.3	40.7	41.0	41.4	41.7	42.1	42.5	43.0	43.5	44.0	44.5
Senegal	116.7	119.0	123.0	121.5	122.0	124.1	126.6	128.2	130.6	131.7	132.6	133.4	134.8	136.1
Sierra Leone	150.2	164.5	148.6	160.0	160.9	161.3	162.2	163.8	165.5	167.0	168.3	169.9	170.9	172.4
Singapore	57.1	50.3	57.3	51.7	56.0	55.7	55.5	55.2	55.3	55.2	55.1	54.8	54.5	54.0
South Africa	15.3	15.8	15.9	15.8	15.8	15.9	16.0	16.1	16.2	16.3	16.4	16.5	16.5	16.5
South Korea	87.0	92.9	92.1	85.9	85.2	84.4	83.6	83.1	82.1	81.2	80.7	80.8	80.4	80.3
Taiwan	48.4	48.7	49.0	48.8	49.0	48.9	48.7	48.6	48.5	48.4	48.3	48.2	48.1	47.9
Tanzania	42.5	38.5	40.2	39.4	41.6	43.4	46.3	48.3	49.7	51.3	51.9	52.9	53.1	53.4
Thailand	174.0	158.9	170.0	165.2	162.2	161.4	160.2	160.2	159.9	158.1	157.0	155.3	153.9	153.4
Turkey	9.8	9.7	9.6	9.6	9.6	9.6	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
United States	13.1	13.2	13.9	12.8	12.8	12.7	12.6	12.6	12.7	12.8	12.8	12.7	12.7	12.6
Uruguay	16.1	18.9	17.4	17.3	17.7	17.8	17.9	18.0	18.1	18.3	18.4	18.4	18.5	18.5
Vietnam	234.9	227.3	223.5	222.9	223.3	223.1	223.0	222.6	221.6	220.0	217.4	214.7	213.2	211.6
Ecowas 7	41.6	43.7	45.1	44.9	46.3	48.2	49.4	50.3	51.6	52.1	52.2	52.4	52.4	52.5
Madagascar	110.1	99.4	110.8	114.5	115.2	116.1	115.9	115.7	114.8	114.9	114.5	114.1	113.6	113.2
Malawi	5.7	5.5	5.4	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3
Zambia	2.4	2.4	2.3	2.2	2.4	2.5	2.7	2.8	2.8	2.9	2.9	2.9	3.0	3.0
Rwanda	8.4	8.2	8.0	7.8	8.0	8.2	8.6	8.8	9.0	9.2	9.3	9.4	9.4	9.4
Uganda	5.9	5.8	5.7	5.7	5.8	5.9	6.2	6.4	6.6	6.9	7.2	7.4	7.4	7.5
Cuba	75.8	61.6	77.2	77.6	77.9	78.0	78.1	78.0	78.3	78.8	79.2	79.6	79.6	78.8
Costa Rica	53.1	52.5	50.6	52.1	53.1	53.3	53.5	53.7	53.9	54.1	54.1	54.2	54.4	54.5
Dominican Rep.	53.4	53.8	52.7	52.6	52.7	52.8	53.0	53.0	53.2	53.3	53.4	53.5	53.7	53.8
Guatemala	7.3	6.6	7.2	7.3	7.3	7.4	7.4	7.4	7.5	7.6	7.7	7.7	7.8	7.8
Honduras	23.2	22.3	22.4	22.1	22.9	23.5	24.4	24.8	25.3	25.7	26.2	26.6	27.1	27.5
Nicaragua	57.9	55.6	59.5	59.6	59.8	59.9	59.9	59.9	60.1	60.2	60.3	60.4	60.6	60.6
Panama	64.4	70.6	71.8	73.0	72.8	72.9	73.0	73.2	73.3	73.4	73.5	73.6	73.7	73.6
Chile	12.9	14.7	14.9	15.0	15.1	15.2	15.4	15.6	15.9	16.2	16.5	16.8	17.1	17.4
Paraguay	10.3	8.7	8.6	8.5	9.0	9.4	9.7	9.7	9.9	10.0	10.1	10.2	10.2	9.9
Peru	77.6	77.3	75.0	73.8	74.7	75.3	76.0	76.6	76.8	77.1	77.4	77.8	78.2	78.6
Guyana	220.4	232.2	237.5	242.7	248.2	251.5	256.0	259.9	264.7	271.0	275.7	279.5	282.1	283.7
Haiti	50.3	51.9	50.3	50.6	51.0	51.1	51.3	51.6	51.9	52.2	52.5	52.7	52.9	53.2
Venezuela	21.1	21.8	23.5	23.1	23.2	23.2	23.3	23.3	23.5	23.8	24.3	24.8	25.3	25.9
Sri Lanka	140.3	134.9	139.0	140.7	142.3	142.6	142.7	142.7	143.3	144.0	144.2	144.6	144.9	145.0
Rest of World	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
World	64.5	64.4	64.4	64.3	64.6	64.5	64.2	64.1	63.9	63.8	63.6	63.4	63.2	63.0

Table 93. Total World Rice Trade, 2016–2029

Country	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
EXPORTERS	(Thousand Metric Tons)													
United States	3645	2764	2971	3112	3114	3104	3165	3205	3238	3256	3278	3301	3316	3338
Thailand	11615	11056	7900	7500	7763	8737	9486	9899	10576	11009	11485	11908	12129	12277
Pakistan	3548	4011	4500	4400	4099	4112	4030	3984	3928	3846	3779	3786	3808	3844
Myanmar	3350	2750	2500	2600	2640	2819	3080	3273	3404	3464	3514	3618	3695	3805
Vietnam	6488	6590	6850	7000	6644	6775	6981	7203	7269	7352	7584	7747	7902	8022
China	805	1386	2800	3300	2819	2848	2983	3049	2995	2933	2866	2805	2740	2678
India	11710	12041	10500	11800	11721	11748	11757	11791	11971	12434	13008	13546	13940	13990
Cambodia	1150	1300	1350	1400	1483	1512	1546	1666	1726	1865	1943	1996	2057	2117
Lao PDR	-82	-52	-200	-50	-37	-30	-20	-3	10	22	31	45	64	89
Australia	226	241	100	20	114	129	159	190	228	244	254	272	285	288
Egypt	100	50	20	100	100	100	100	100	100	100	100	100	100	100
Turkey	57	48	25	25	25	25	25	25	25	25	25	25	25	25
EU 28	319	349	320	300	371	371	372	370	370	382	381	384	386	392
Brazil	830	1152	800	600	851	750	734	778	754	755	762	757	758	759
Cote d'Ivoire	70	80	100	100	100	100	100	100	100	100	100	100	100	100
Senegal	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Guinea	80	80	100	100	100	100	100	100	100	100	100	100	100	100
Tanzania	30	40	30	30	30	30	30	30	30	30	30	30	30	30
Japan	50	60	60	65	65	65	65	65	65	65	65	65	65	65
Argentina	343	426	370	330	378	338	317	330	335	338	339	342	341	344
Uruguay	950	756	785	775	814	828	850	863	877	885	894	899	903	907
Paraguay	537	650	710	700	665	704	741	783	813	841	865	884	895	905
Peru	130	80	80	80	79	81	82	83	83	84	85	86	87	89
Guyana	431	455	414	500	502	583	627	664	697	721	751	777	802	827
Venezuela	40	20	0	0	0	0	0	0	0	0	0	0	0	0
Sri Lanka	5	5	5	5	5	5	5	5	5	5	5	5	5	5
ROW and Residual	837	889	1042	788	814	816	806	786	775	762	753	739	721	696
Total Exports	47274	47237	44142	45590	45269	46661	48131	49350	50486	51631	53006	54328	55264	55802

Table 94. Continued.

Country	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
IMPORTERS	(Thousand Metric Tons)													
United States	745	874	920	956	898	880	849	828	841	865	887	895	901	908
Thailand	250	250	250	250	250	250	250	250	250	250	250	250	250	250
Pakistan	10	0	0	0	0	0	0	0	0	0	0	0	0	0
Vietnam	500	500	400	400	400	400	400	400	400	400	400	400	400	400
China	5300	5500	2700	2400	2733	3143	3558	3775	3793	3809	3823	3835	3846	3853
Hong Kong	334	326	345	350	361	366	372	379	385	392	399	405	411	417
Egypt	102	87	900	300	200	200	200	200	200	200	200	200	200	200
Japan	709	686	685	685	682	682	682	682	682	682	682	682	682	682
Bangladesh	75	3200	400	60	343	542	693	702	761	522	528	533	579	516
Indonesia	350	2350	300	1000	1215	1116	1079	1041	1060	996	1138	1112	1233	1230
Iraq	1070	1130	1200	1150	1154	1160	1177	1201	1199	1203	1224	1259	1294	1325
Iran	1400	1200	1200	1150	1327	1392	1450	1483	1514	1538	1565	1591	1645	1672
Malaysia	900	800	1000	1000	1022	923	897	899	894	890	890	884	876	860
Philippines	1100	1300	3570	2700	2644	2565	2628	2639	2695	2746	2792	2991	3051	3116
Saudi Arabia	1195	1290	1350	1375	1423	1452	1486	1518	1552	1588	1626	1663	1700	1737
EU 28	1841	2006	2100	2050	2090	2095	2107	2121	2136	2154	2171	2188	2204	2217
Singapore	323	287	330	300	328	329	330	331	334	336	337	337	338	337
Brunei	41	36	50	50	51	52	52	53	54	55	56	57	58	59
Turkey	280	340	200	210	220	214	219	212	208	205	202	201	196	193
South Korea	411	398	410	410	359	409	409	409	409	409	409	409	409	409
Taiwan	125	98	120	120	126	126	126	126	126	126	126	126	126	126
Australia	161	173	230	300	187	163	160	158	156	158	160	162	164	165
Brazil	614	562	900	1100	1427	1364	1355	1407	1409	1430	1457	1474	1461	1437
Mexico	870	813	760	785	804	804	821	836	856	881	897	923	936	952
Canada	362	373	400	400	403	408	414	421	428	437	445	453	460	467
Cote d'Ivoire	1300	1370	1350	1350	1482	1540	1620	1686	1770	1880	1990	2120	2245	2326
Nigeria	2500	2000	1900	1800	2285	2460	2700	2920	3077	3275	3416	3545	3623	3663
South Africa	1006	1074	1010	1050	1065	1084	1101	1119	1133	1152	1165	1183	1195	1207
Senegal	1100	1100	1150	1200	1207	1269	1351	1424	1518	1578	1644	1714	1808	1889
Ghana	600	780	900	950	1017	1023	1060	1063	1087	1129	1184	1229	1264	1296
Cameroon	575	625	675	700	722	721	731	758	781	811	841	869	901	946

Table 94. Continued.

Country	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
IMPORTERS	(Thousand Metric Tons)													
Mozambique	715	650	620	730	725	757	795	826	883	941	1001	1029	1059	1089
Guinea	610	700	800	900	927	890	841	820	829	854	860	878	847	819
Kenya	650	675	750	775	858	901	950	1004	1079	1149	1213	1277	1309	1353
Tanzania	300	250	250	270	350	447	650	773	859	955	990	1049	1046	1043
Sierra Leone	370	350	400	450	408	393	381	382	385	386	390	398	406	414
Mali	200	230	300	325	334	311	317	367	428	523	598	715	810	904
Liberia	310	350	370	400	403	397	392	404	418	434	447	463	476	483
Colombia	149	137	150	180	185	184	177	171	171	170	181	186	192	197
Ecowas 7	1892	2151	2277	2367	2539	2758	2934	3106	3315	3449	3563	3667	3763	3862
Madagascar	299	557	350	400	503	585	596	615	609	637	649	657	664	673
Malawi	15	15	15	15	17	19	23	27	31	36	40	44	48	53
Zambia	10	10	10	10	11	12	15	17	18	19	20	22	23	25
Rwanda	40	40	40	40	42	42	45	47	48	48	48	50	52	55
Uganda	115	110	125	125	133	143	156	169	184	207	235	257	274	289
Cuba	524	435	550	600	600	594	594	590	590	594	598	600	597	587
Costa Rica	162	138	160	160	160	159	162	164	166	169	170	172	174	176
Dominican Rep.	41	19	30	30	19	24	26	28	34	35	40	46	52	57
Guatemala	97	89	100	104	107	109	111	114	118	121	125	128	132	136
Honduras	130	108	150	160	175	182	193	197	203	208	214	220	228	235
Nicaragua	95	72	100	110	109	102	99	95	94	93	92	91	90	88
Panama	66	110	80	130	137	114	106	106	108	110	113	115	117	119
Chile	136	176	170	180	188	172	170	170	172	176	181	186	191	197
Paraguay	2	1	2	2	2	2	2	2	2	2	2	2	2	2
Peru	310	398	264	350	360	346	320	298	290	283	276	270	266	260
Haiti	470	494	470	500	501	505	513	522	531	541	549	558	567	575
Venezuela	350	396	550	480	518	498	503	513	530	547	571	592	615	637
Sri Lanka	506	491	20	20	-77	-21	-24	-30	-22	-13	-17	-15	-16	-23
ROW and Residual	12561	6557	7334	9226	6612	6900	6810	6809	6708	6861	6954	6981	6824	6647
Total Imports	47274	47237	44142	45590	45269	46660	48131	49349	50486	51630	53006	54328	55264	55801

Table 94. Total World Long Grain Rice Trade, 2016–2029

Country	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
(Thousand Metric Tons)														
EXPORTERS	45240	45576	42369	43698	43277	44645	46081	47263	48356	49490	50849	52147	53068	53606
United States	2432	2007	2086	2223	2227	2231	2282	2312	2327	2340	2344	2353	2359	2378
Thailand	11615	11056	7900	7500	7763	8737	9486	9899	10576	11009	11485	11908	12129	12277
Pakistan	3548	4011	4500	4400	4099	4112	4030	3984	3928	3846	3779	3786	3808	3844
Myanmar	3350	2750	2500	2600	2640	2819	3080	3273	3404	3464	3514	3618	3695	3805
Vietnam	6488	6590	6850	7000	6644	6775	6981	7203	7269	7352	7584	7747	7902	8022
India	11710	12041	10500	11800	11721	11748	11757	11791	11971	12434	13008	13546	13940	13990
Cambodia	1150	1300	1350	1400	1483	1512	1546	1666	1726	1865	1943	1996	2057	2117
Laos	71	84	50	50	50	50	50	50	50	50	50	50	50	50
EU 28	134	144	85	92	102	101	101	99	99	110	110	112	115	120
Argentina	343	426	370	330	378	338	317	330	335	338	339	342	341	344
Uruguay	950	756	785	775	814	828	850	863	877	885	894	899	903	907
China	545	1036	2325	2690	2203	2209	2350	2422	2381	2329	2273	2221	2162	2106
Paraguay	537	650	710	700	665	704	741	783	813	841	865	884	895	905
Peru	130	80	80	80	79	81	82	83	83	84	85	86	87	89
Guyana	431	455	414	500	502	583	627	664	697	721	751	777	802	827
Venezuela	40	20	0	0	0	0	0	0	0	0	0	0	0	0
Sri Lanka	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Residual	1761	2165	1859	1553	1903	1813	1795	1837	1815	1816	1822	1818	1819	1820
(Thousand Metric Tons)														
IMPORTERS	45240	45576	42369	43698	43177	44545	45981	47164	48256	49390	50749	52048	52968	53506
United States	745	874	920	956	898	880	849	828	841	865	887	895	901	908
Thailand	250	250	250	250	250	250	250	250	250	250	250	250	250	250
Vietnam	500	500	400	400	400	400	400	400	400	400	400	400	400	400
China	5300	5500	2700	2400	2733	3143	3558	3775	3793	3809	3823	3835	3846	3853
Hong Kong	334	326	345	350	361	366	372	379	385	392	399	405	411	417
Indonesia	350	2350	300	1000	1215	1116	1079	1041	1060	996	1138	1112	1233	1230
Malaysia	900	800	1000	1000	1022	923	897	899	894	890	890	884	876	860
Philippines	1100	1300	3570	2700	2644	2565	2628	2639	2695	2746	2792	2991	3051	3116

Table 95. Continued.

Country	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
IMPORTERS	(Thousand Metric Tons)													
Bangladesh	75	3200	400	60	343	542	693	702	761	522	528	533	579	516
Iraq	1070	1130	1200	1150	1154	1160	1177	1201	1199	1203	1224	1259	1294	1325
Iran	1400	1200	1200	1150	1327	1392	1450	1483	1514	1538	1565	1591	1645	1672
Saudi Arabia	1195	1290	1350	1375	1423	1452	1486	1518	1552	1588	1626	1663	1700	1737
EU 28	1668	1846	1895	1896	1904	1918	1928	1941	1947	1958	1966	1973	1979	1984
Cambodia	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Laos	82	52	200	50	37	30	20	3	-10	-22	-31	-45	-64	-89
Singapore	323	287	330	300	328	329	330	331	334	336	337	337	338	337
Brunei	41	36	50	50	51	52	52	53	54	55	56	57	58	59
Australia	161	173	230	300	187	163	160	158	156	158	160	162	164	165
Brazil	614	562	900	1100	1427	1364	1355	1407	1409	1430	1457	1474	1461	1437
Mexico	870	813	760	785	804	804	821	836	856	881	897	923	936	952
Canada	362	373	400	400	403	408	414	421	428	437	445	453	460	467
Cote d'Ivoire	1300	1370	1350	1350	1482	1540	1620	1686	1770	1880	1990	2120	2245	2326
Nigeria	2500	2000	1900	1800	2285	2460	2700	2920	3077	3275	3416	3545	3623	3663
Senegal	1100	1100	1150	1200	1207	1269	1351	1424	1518	1578	1644	1714	1808	1889
Ghana	600	780	900	950	1017	1023	1060	1063	1087	1129	1184	1229	1264	1296
Cameroon	575	625	675	700	722	721	731	758	781	811	841	869	901	946
Mozambique	715	650	620	730	725	757	795	826	883	941	1001	1029	1059	1089
Guinea	610	700	800	900	927	890	841	820	829	854	860	878	847	819
Kenya	650	675	750	775	858	901	950	1004	1079	1149	1213	1277	1309	1353
Tanzania	300	250	250	270	350	447	650	773	859	955	990	1049	1046	1043
Sierra Leone	370	350	400	450	408	393	381	382	385	386	390	398	406	414
Mali	200	230	300	325	334	311	317	367	428	523	598	715	810	904
South Africa	1006	1074	1010	1050	1065	1084	1101	1119	1133	1152	1165	1183	1195	1207
Liberia	310	350	370	400	403	397	392	404	418	434	447	463	476	483
Colombia	149	137	150	180	185	184	177	171	171	170	181	186	192	197
ECOWAS-7	1892	2151	2277	2367	2539	2758	2934	3106	3315	3449	3563	3667	3763	3862
Madagascar	175	299	557	350	400	503	585	596	615	609	637	649	657	664
Malawi	15	15	15	15	15	17	19	23	27	31	36	40	44	48

Table 95. Continued.

Country	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
IMPORTERS	(Thousand Metric Tons)													
Zambia	10	10	10	10	10	11	12	15	17	18	19	20	22	23
Rwanda	40	40	40	40	40	42	42	45	47	48	48	48	50	52
Uganda	120	115	110	125	125	133	143	156	169	184	207	235	257	274
Cuba	524	435	550	600	600	594	594	590	590	594	598	600	597	587
Costa Rica	162	138	160	160	160	159	162	164	166	169	170	172	174	176
Dominican Rep.	41	19	30	30	19	24	26	28	34	35	40	46	52	57
Guatemala	97	89	100	104	107	109	111	114	118	121	125	128	132	136
Honduras	130	108	150	160	175	182	193	197	203	208	214	220	228	235
Nicaragua	95	72	100	110	109	102	99	95	94	93	92	91	90	88
Panama	66	110	80	130	137	114	106	106	108	110	113	115	117	119
Chile	136	176	170	180	188	172	170	170	172	176	181	186	191	197
Paraguay	2	1	2	2	2	2	2	2	2	2	2	2	2	2
Peru	310	398	264	350	360	346	320	298	290	283	276	270	266	260
Haiti	470	494	470	500	501	505	513	522	531	541	549	558	567	575
Venezuela	350	396	550	480	518	498	503	513	530	547	571	592	615	637
Sri Lanka	506	491	20	20	-77	-21	-24	-30	-22	-13	-17	-15	-16	-23
Egypt	0	0	0	0	100	100	100	100	100	100	100	100	100	100
Rest of World	12235	6592	7862	9144	6237	6543	6435	6407	6282	6440	6532	6558	6409	6261

Table 95. Total World Medium Grain Rice Trade, 2016–2029

Country	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
(Thousand Metric Tons)														
EXPORTERS	2034	1661	1773	1892	1992	2015	2050	2086	2130	2141	2157	2181	2196	2196
United States	1213	756	883	889	888	872	883	893	911	915	934	948	957	960
Australia	226	241	100	20	114	129	159	190	228	244	254	272	285	288
<i>Egypt</i>	100	50	20	100	100	100	100	100	100	100	100	100	100	100
EU 28	185	205	235	208	209	210	210	211	211	212	211	211	211	212
Japan	50	60	60	65	65	65	65	65	65	65	65	65	65	65
China	260	350	475	610	616	640	633	628	615	604	593	585	577	571
(Thousand Metric Tons)														
IMPORTERS	2034	1661	1773	1892	1992	2015	2050	2086	2130	2141	2157	2181	2196	2196
United States	102	133	178	178	184	194	183	182	184	184	181	179	179	178
Turkey	280	340	200	210	220	214	219	212	208	205	202	201	196	193
Japan	709	686	685	685	682	682	682	682	682	682	682	682	682	682
South Korea	411	398	410	410	359	409	409	409	409	409	409	409	409	409
Taiwan	125	98	120	120	126	126	126	126	126	126	126	126	126	126
EU 28	173	160	205	154	186	178	180	180	190	196	205	215	225	232
Australia	161	173	230	300	187	163	160	158	156	158	160	162	164	165
Egypt	102	87	900	300	100	100	100	100	100	100	100	100	100	100
Others (residual)	-28	-414	-1155	-465	-51	-50	-8	38	76	81	92	108	115	110

Table 96. World Rice Prices and Price Relationship, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Long Grain Rice, High Quality	(U.S. Dollars per Metric Ton)													
International Reference Price, long grain	394	418	399	415	400	401	402	405	406	407	410	418	425	439
Real International Rice Reference Price (2015/17=100)	394	407	379	387	367	361	353	347	339	332	327	326	324	327
Thai 5% FOB*	384	403	384	401	381	392	393	396	397	398	401	408	416	429
Thai 100% FOB	394	418	399	415	400	401	402	405	406	407	410	418	425	439
US No. 2, FOB Houston	489	599	552	575	559	560	562	563	563	562	561	557	560	561
US No. 2 FOB - Int Ref Price	95	181	153	160	159	159	160	158	157	155	151	140	134	122
Long Grain Rice, Low Quality														
Thai 35% FOB	327	347	339	344	332	342	343	346	347	348	350	355	361	370
US Wheat No. 2, FOB Gulf	170	186	209	185	193	198	198	202	202	202	201	200	199	197
Corn, FOB price	157	160	169	176	166	161	162	163	162	161	161	161	160	159
Soybean, FOB price	359	350	314	330	319	325	324	324	320	320	322	325	324	322
	(Price Ratio)													
Wheat/Thai35%	0.52	0.54	0.62	0.54	0.58	0.58	0.58	0.58	0.58	0.58	0.57	0.56	0.55	0.53
Rice/Wheat	2.88	3.22	2.64	3.10	2.90	2.83	2.83	2.79	2.79	2.79	2.80	2.79	2.82	2.85
Rice/Corn	3.11	3.74	3.27	3.27	3.36	3.49	3.47	3.46	3.47	3.49	3.48	3.46	3.49	3.54
Rice/Soybean	1.36	1.71	1.76	1.74	1.75	1.72	1.74	1.74	1.76	1.76	1.74	1.72	1.73	1.74
Medium Grain Rice	(U.S. Dollars per Metric Ton)													
U.S. No.2 MG Rice FOB CA	611	868	866	820	856	853	852	849	848	847	845	844	842	843
MG FOB CA - LG FOB Houston	122	269	314	245	297	293	290	285	285	285	284	286	283	281

*FOB=Free on Board

Table 97. Detailed United States Rice Supply and Use (English Units), 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
YIELD (rough basis)	(Pounds per Acre)													
Actual	7237.5	7506.3	7704.5	7471.0	7661.9	7737.2	7810.7	7878.7	7948.6	8025.5	8103.1	8182.6	8259.3	8340.2
Program Yield	5131.0	5131.0	5131.0	5131.0	5131.0	5131.0	5131.0	5131.0	6282.0	6282.0	6282.0	6282.0	6282.0	6282.0
HARVESTED ACREAGE	(Thousand Acres)													
Program Area	4760.0	4760.0	4760.0	4760.0	4760.0	4760.0	4760.0	4760.0	4760.0	4760.0	4760.0	4760.0	4760.0	4760.0
Total Harvested Area	3097.0	2374.0	2910.0	2470.0	2707.3	2710.9	2694.2	2682.8	2670.4	2656.7	2637.6	2611.5	2592.4	2588.2
	(Million Hundredweight)													
SUPPLY (rough basis)	294.1	251.7	282.6	259.7	264.3	267.6	273.5	277.7	281.1	283.2	283.6	282.3	281.6	281.8
Production	224.1	178.2	224.2	184.7	207.4	209.7	210.4	211.4	212.3	213.2	213.7	213.7	214.1	215.9
Beginning Stocks	46.5	46.0	29.4	44.9	28.6	30.2	36.4	40.3	42.4	42.8	42.0	40.4	39.1	37.4
Imports	23.5	27.5	29.0	30.1	28.3	27.7	26.8	26.1	26.5	27.3	28.0	28.2	28.4	28.6
DOMESTIC USE (rough basis)	133.2	135.3	143.8	133.0	133.9	133.6	133.6	134.4	136.4	138.9	140.0	139.3	139.8	139.8
Food	106.9	108.9	118.3	112.3	111.1	112.8	114.5	116.3	118.1	120.0	121.9	123.9	125.8	127.7
Seed	2.0	2.3	2.0	1.7	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0
Brewing	19.0	19.0	19.2	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	20.1	20.2	20.3
Residual	5.3	5.1	4.3	-0.2	1.3	-0.9	-2.7	-3.7	-3.6	-3.2	-4.1	-6.8	-8.3	-10.4
EXPORTS	114.8	87.0	93.5	98.0	98.1	97.7	99.7	100.9	102.0	102.5	103.2	104.0	104.4	105.1
TOTAL USE	248.0	222.3	237.3	231.0	232.0	231.3	233.2	235.2	238.3	241.3	243.1	243.1	244.1	244.8
ENDING STOCKS	46.0	29.4	44.9	28.6	30.2	36.3	40.3	42.4	42.8	41.9	40.4	39.1	37.4	37.1
S-T-U	0.19	0.13	0.19	0.12	0.13	0.16	0.17	0.18	0.18	0.17	0.17	0.16	0.15	0.15
PRICES	(U.S. Dollars per Hundredweight)													
Loan Rate	6.50	6.50	6.50	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Season Ave. Farm Price	10.40	12.90	12.30	13.20	12.90	12.85	12.91	12.98	12.97	12.95	12.93	12.83	12.88	12.93
Long Grain Farm Price	9.61	11.50	10.80	12.20	11.84	11.91	11.97	12.06	12.06	12.03	12.01	11.90	11.97	12.03
Medium Grain Farm Price	13.10	17.00	17.60	16.30	16.12	16.04	16.05	16.06	16.06	16.06	16.05	15.97	15.95	15.96

Table 98. Continued.

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(U.S. Dollars per Hundredweight)													
Target Price	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Long grain Price†	22.18	27.17	25.04	26.08	25.36	25.41	25.49	25.56	25.54	25.49	25.45	25.29	25.39	25.46
Medium Grain Price£	27.71	39.37	39.28	37.19	38.83	38.69	38.66	38.50	38.46	38.41	38.34	38.27	38.21	38.22
Average World Price (US\$/cwt)	9.0	9.0	8.8	9.3	9.8	9.9	9.8	9.8	9.8	9.8	9.9	10.0	10.2	10.4
	INCOME FACTORS													
	(Million U.S. Dollars)													
Production Market Value	2355.9	2327.3	2831.7	2495.7	2685.7	2724.9	2743.3	2769.6	2780.9	2788.8	2791.3	2770.2	2787.0	2819.6
Government payment	849.0	430.4	539.8	335.4	410.7	398.1	383.8	367.5	367.4	372.5	377.0	397.5	383.6	371.6
Total Income	3205.0	2757.7	3371.5	2831.0	3096.4	3123.0	3127.1	3137.1	3148.3	3161.4	3168.3	3167.6	3170.7	3191.2
	(U.S. Dollars Per Acre)													
Market Returns Above Variable Cost	261.7	497.0	336.3	509.7	492.4	497.5	453.2	451.6	444.5	437.8	431.6	420.0	419.3	418.6
Total Returns Above Variable Cost	535.8	678.3	521.8	645.5	644.1	644.5	595.7	588.8	582.2	578.2	574.6	572.3	567.4	562.3
†. FOB Houston (U.S. No. 2)														
£. FOB CA (U.S. No. 2)														

Table 98. United States Long Grain Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Pounds per Acre)													
YIELD (rough basis)	6927.0	7400.0	6000.0	7268.5	7482.5	7567.2	7648.7	7722.9	7800.2	7886.9	7973.2	8059.6	8144.8	8238.8
	(Thousand Acres)													
HARVESTED ACREAGE	2407.0	1748.0	2176.0	1728.0	2051.9	2045.8	2033.9	2022.7	2013.2	1999.6	1981.5	1955.6	1938.1	1934.3
	(Million Hundredweight)													
SUPPLY (rough basis)	209.5	182.2	207.7	184.8	191.8	195.7	201.1	204.8	207.8	209.7	210.3	209.8	209.8	210.5
Production	166.5	127.9	164.0	125.6	153.5	154.8	155.6	156.2	157.0	157.7	158.0	157.6	157.8	159.4
Beginning Stocks	22.7	31.0	20.3	34.7	15.8	19.2	24.5	28.2	30.1	30.5	30.0	29.5	29.2	28.0
Imports	20.3	23.3	23.4	24.5	22.5	21.6	21.0	20.3	20.7	21.4	22.2	22.5	22.7	23.0
DOMESTIC USE + Residual	101.8	98.6	109.0	99.0	100.4	100.7	101.0	101.8	104.0	105.9	106.8	106.4	107.4	107.8
EXPORTS	76.6	63.2	65.7	70.0	70.1	70.3	71.9	72.8	73.3	73.7	73.8	74.1	74.3	74.9
TOTAL USE + Residual	178.4	161.8	174.7	169.0	170.6	171.2	173.0	174.8	177.4	179.7	180.8	180.6	181.8	182.8
ENDING STOCKS	31.0	20.3	32.6	15.8	19.2	24.6	28.2	30.1	30.5	30.0	29.5	29.2	28.1	27.7
PRICES	(U.S. Dollars per Hundredweight)													
Season Average Farm Price	9.61	11.50	10.80	12.20	11.84	11.91	11.97	12.06	12.06	12.03	12.01	11.90	11.97	12.03
Export Price†	22.2	27.2	25.0	26.1	25.4	25.4	25.5	25.6	25.5	25.5	25.5	25.3	25.4	25.5
	(Million U.S. Dollars)													
PRODUCTION MARKET VALUE	1600.1	1470.9	1771.2	1532.3	1817.2	1844.8	1862.9	1884.7	1894.3	1898.2	1897.4	1875.6	1889.7	1918.2

†. FOB Houston (U.S. No. 2)

Table 99. United States Medium Grain Rice Supply and Use, 2016–2029

Variable	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
	(Pounds per Acre)													
YIELD (rough basis)	8311.0	8047.6	8209.1	7960.2	8223.5	8261.4	8309.8	8357.1	8403.4	8448.2	8495.6	8550.1	8598.9	8640.8
	(Thousand Acres)													
HARVESTED ACREAGE	690.0	626.0	734.0	742.0	655.3	664.0	660.2	659.3	657.0	656.5	655.8	655.3	654.1	653.4
	(Million Hundredweight)													
SUPPLY (rough basis)	81.8	66.1	73.5	74.9	72.5	72.0	72.4	73.0	73.4	73.7	73.4	72.6	71.8	71.4
Production	57.7	50.4	60.3	59.1	53.9	54.9	54.9	55.1	55.2	55.5	55.7	56.0	56.2	56.5
Beginning Stocks	20.9	11.5	7.6	10.2	12.8	11.1	11.8	12.1	12.4	12.4	11.9	10.9	9.9	9.4
Imports	3.2	4.2	5.6	5.6	5.8	6.1	5.7	5.7	5.8	5.8	5.7	5.6	5.6	5.6
DOMESTIC USE + Residual	31.4	36.7	34.8	34.0	33.4	32.8	32.5	32.5	32.3	32.9	33.0	32.8	32.3	31.8
EXPORTS	38.2	23.8	27.8	28.0	28.0	27.5	27.8	28.1	28.7	28.8	29.4	29.9	30.1	30.2
TOTAL USE + Residual	69.6	60.5	62.6	62.0	61.4	60.2	60.3	60.6	61.0	61.7	62.5	62.6	62.5	62.0
ENDING STOCKS	11.5	7.6	10.2	12.8	11.1	11.8	12.1	12.4	12.4	11.9	10.9	9.9	9.4	9.4
PRICES	(U.S. Dollars per Hundredweight)													
Japonica Farm Price	14.1	20.1	20.0	18.3	18.1	18.0	18.0	18.0	17.9	17.9	17.9	17.8	17.8	17.8
Medium/Short (excl Japonica) MG Farm Price	10.1	11.7	12.3	12.2	12.3	12.3	12.4	12.5	12.5	12.5	12.5	12.4	12.4	12.5
	(Million U.S. Dollars)													
PRODUCTION MARKET VALUE	755.9	856.4	1060.5	963.3	868.5	880.1	880.4	884.9	886.6	890.6	893.9	894.6	897.3	901.4

Table 100. Arkansas Rice Supply by rice type, 2016–2029*

Variable	Units	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Long Grain Area	(1000 Ac)	1390.0	955.0	1240.0	935.0	1138.2	1136.6	1129.0	1122.4	1116.6	1108.8	1097.6	1082.2	1071.4	1068.9
Long Grain Yield	(lb/Ac)	6940.0	7510.1	7550.0	7550.1	7552.5	7639.6	7721.8	7795.6	7875.0	7963.7	8051.5	8140.5	8223.0	8308.5
Long Grain Production	(Mil. Cwt)	96.5	71.7	93.6	70.6	86.0	86.8	87.2	87.5	87.9	88.3	88.4	88.1	88.1	88.8
Medium Grain Area	(1000 Ac)	131.0	149.0	182.0	191.0	146.8	157.7	157.8	159.4	159.9	161.2	162.6	164.2	165.0	165.6
Medium Grain Yield	(lb/Ac)	6754.2	7330.9	7322.5	7153.9	7339.2	7387.1	7442.8	7493.7	7547.2	7604.9	7667.8	7733.3	7788.1	7843.1
Medium Grain Production	(Mil. Cwt)	8.8	10.9	13.3	13.7	10.8	11.6	11.7	11.9	12.1	12.3	12.5	12.7	12.9	13.0
Total Area	(1000 Ac)	1521.0	1104.0	1422.0	1126.0	1285.0	1294.3	1286.8	1281.8	1276.6	1270.1	1260.1	1246.4	1236.4	1234.6
Average Yield	(lb/Ac)	6920.0	7485.9	7520.9	7482.9	7528.1	7608.8	7687.6	7758.2	7833.9	7918.3	8001.9	8087.0	8165.0	8246.2
Total Production	(Mil. Cwt)	105.3	82.6	106.9	84.3	96.7	98.5	98.9	99.4	100.0	100.6	100.8	100.8	101.0	101.8

Table 101. Louisiana Rice Supply by rice type, 2016–2029

Variable	Units	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Long Grain Area	(1000 Ac)	405.0	366.0	392.0	361.0	387.9	387.0	385.0	384.1	382.9	381.5	379.5	376.6	374.6	374.4
Long Grain Yield	(lb/Ac)	6660.0	6719.9	7159.9	6380.1	6940.4	7022.8	7103.4	7180.1	7254.4	7337.1	7418.6	7502.6	7580.7	7659.8
Long Grain Production	(Mil. Cwt)	27.0	24.6	28.1	23.0	26.9	27.2	27.4	27.6	27.8	28.0	28.1	28.3	28.4	28.7
Medium Grain Area	(1000 Ac)	23.0	29.0	44.0	56.0	49.2	49.7	49.5	49.3	49.1	48.9	48.7	48.5	48.3	48.2
Medium Grain Yield	(lb/Ac)	6160.9	6579.3	6879.5	6283.9	6638.6	6885.6	6938.2	6991.1	7041.7	7091.4	7146.1	7206.2	7252.8	7296.3
Medium Grain Production	(Mil. Cwt)	1.4	1.9	3.0	3.5	3.3	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.5	3.5
Total Area	(1000 Ac)	428.0	395.0	436.0	417.0	437.1	436.7	434.5	433.5	432.0	430.4	428.2	425.2	423.0	422.6
Average Yield	(lb/Ac)	6630.0	6709.6	7131.7	6367.1	6906.4	7007.2	7084.9	7159.2	7230.0	7310.0	7387.4	7469.5	7543.1	7619.0
Total Production	(Mil. Cwt)	28.4	26.5	31.1	26.6	30.2	30.6	30.8	31.0	31.2	31.5	31.6	31.8	31.9	32.2

Table 102. Texas Rice Supply, 2016–2029

Variable	Units	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Total Area	(1000 Ac)	187.0	155.0	183.0	147.0	179.7	175.5	172.0	170.3	167.2	164.8	161.3	157.4	154.1	153.2
Average Yield	(lb/Ac)	7500.0	7300.0	8000.0	7400.0	7906.2	7986.4	8062.5	8127.7	8197.3	8274.7	8354.7	8434.8	8511.6	8585.4
Total Production	(Mil. Cwt)	13.8	11.3	14.6	10.9	14.2	13.9	13.9	13.7	13.7	13.6	13.4	13.2	13.1	13.1

Table 103. Missouri Rice Supply, 2016–2029

Variable	Units	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Total Area	(1000 Ac)	231.0	151.0	211.0	166.0	204.6	206.7	206.4	205.5	205.0	204.2	202.7	200.3	198.8	199.0
Average Yield	(lb/Ac)	6640.0	7460.3	7760.2	7360.2	7515.2	7600.1	7682.6	7760.5	7843.1	7936.2	8023.6	8112.4	8192.7	8276.0
Total Production	(Mil. Cwt)	15.4	11.3	16.4	12.2	15.4	15.7	15.9	16.0	16.1	16.2	16.3	16.3	16.3	16.5

Table 104. Mississippi Rice Supply, 2016–2029

Variable	Units	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Total Area	(1000 Ac)	194.0	114.0	139.0	111.0	129.5	128.9	128.1	127.7	127.2	126.6	125.8	124.7	123.9	123.8
Average Yield	(lb/Ac)	7180.0	7400.0	7350.4	7350.5	7932.4	8026.8	8119.5	8207.4	8292.7	8387.7	8481.5	8578.3	8668.2	8758.8
Total Production	(Mil. Cwt)	13.9	8.4	10.2	8.2	10.3	10.4	10.4	10.5	10.6	10.6	10.7	10.7	10.8	10.9

Table 105. California Rice Supply, 2016–2029

Variable	Units	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Total Area	(1000 Ac)	536.0	436.0	493.0	485.0	448.9	446.3	442.7	440.5	437.9	436.4	434.6	432.8	431.0	430.0
Average Yield	(lb/Ac)	8840.0	8431.0	8674.4	8495.5	8724.0	8761.7	8810.5	8861.0	8907.4	8950.5	8995.2	9049.4	9099.2	9137.9
Total Production	(Mil. Cwt)	47.4	36.8	42.8	41.2	39.2	39.1	39.0	39.0	39.0	39.1	39.1	39.2	39.2	39.3

Estimates of the Stochastic Baseline Analysis

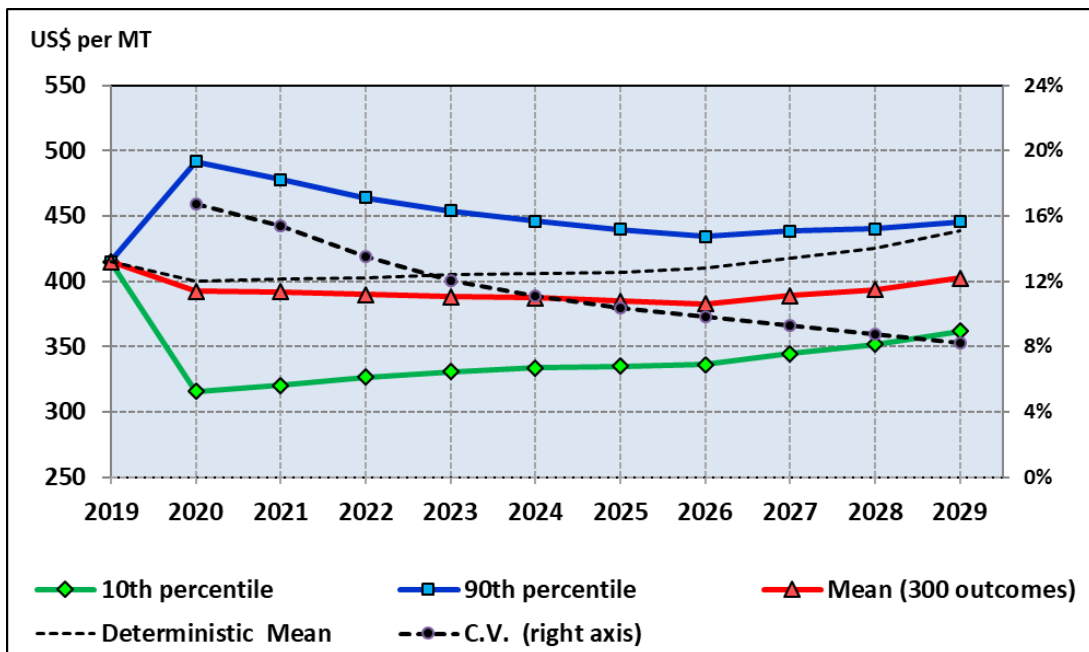


Figure 13 Stochastic Projection of Long Grain Rice International Reference Price, 2016–2029

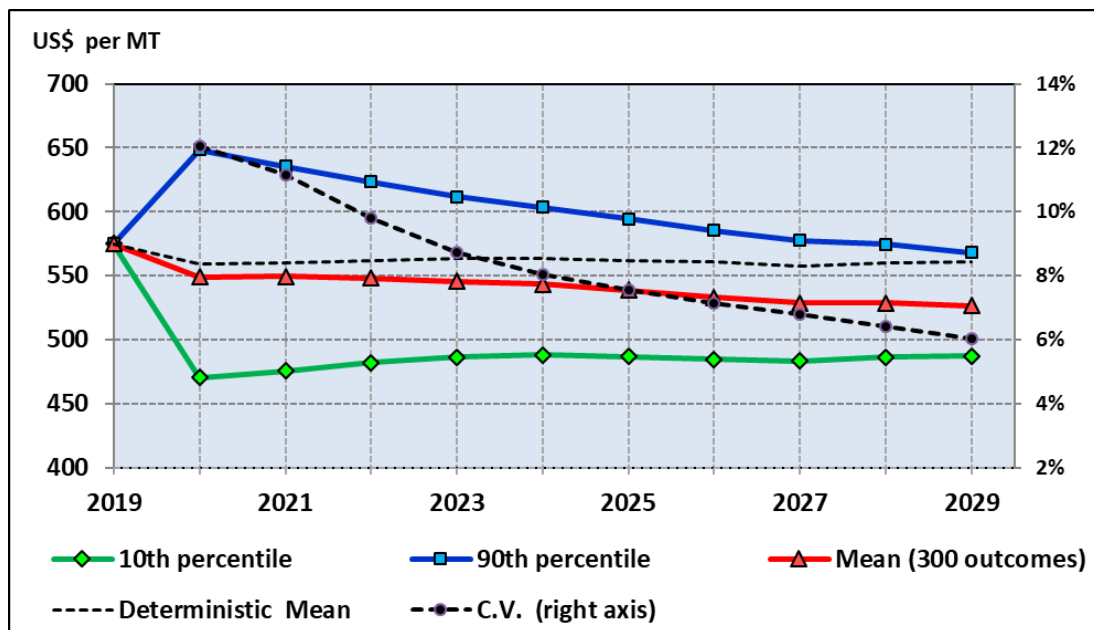


Figure 14 Stochastic Projection of U.S. Long Grain Rice FOB Export Price, 2016–2029

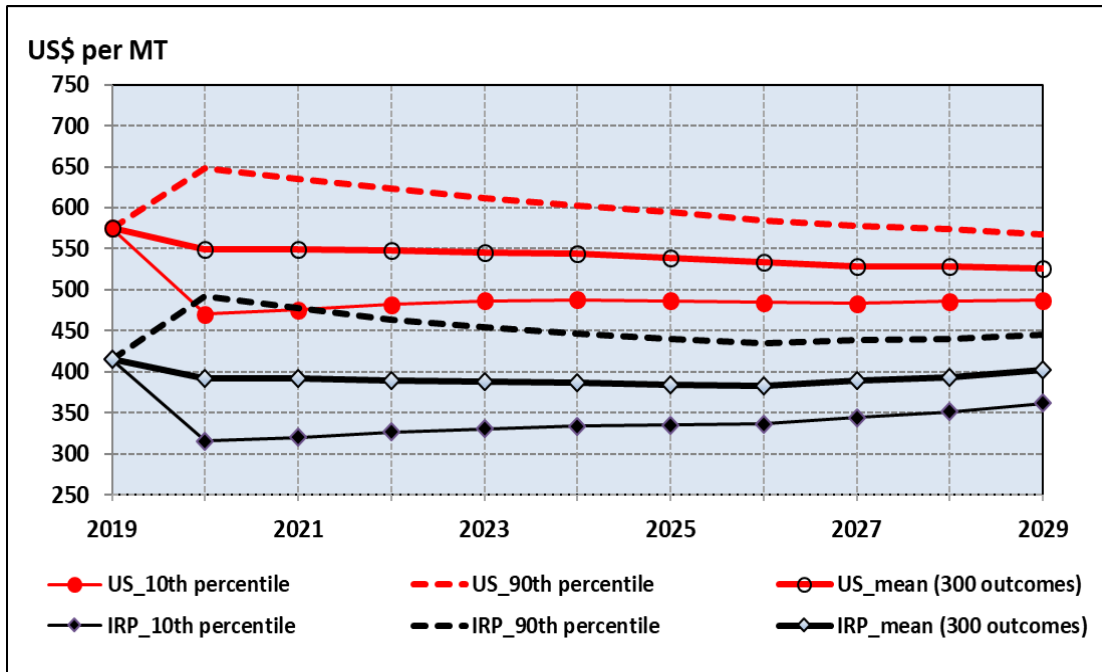


Figure 15 Stochastic Projection Comparisons of International Reference and U.S. Long Grain Rice Export Prices, 2016–2029

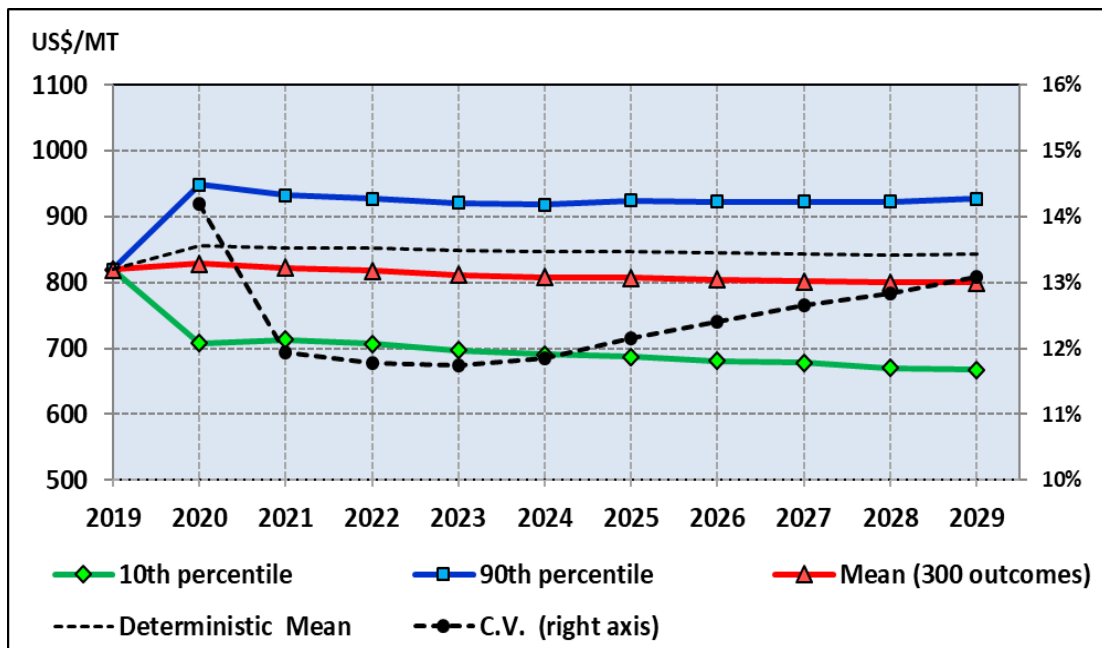


Figure 16 Stochastic Projection of Medium Grain Rice Price, FOB California, 2016–2029

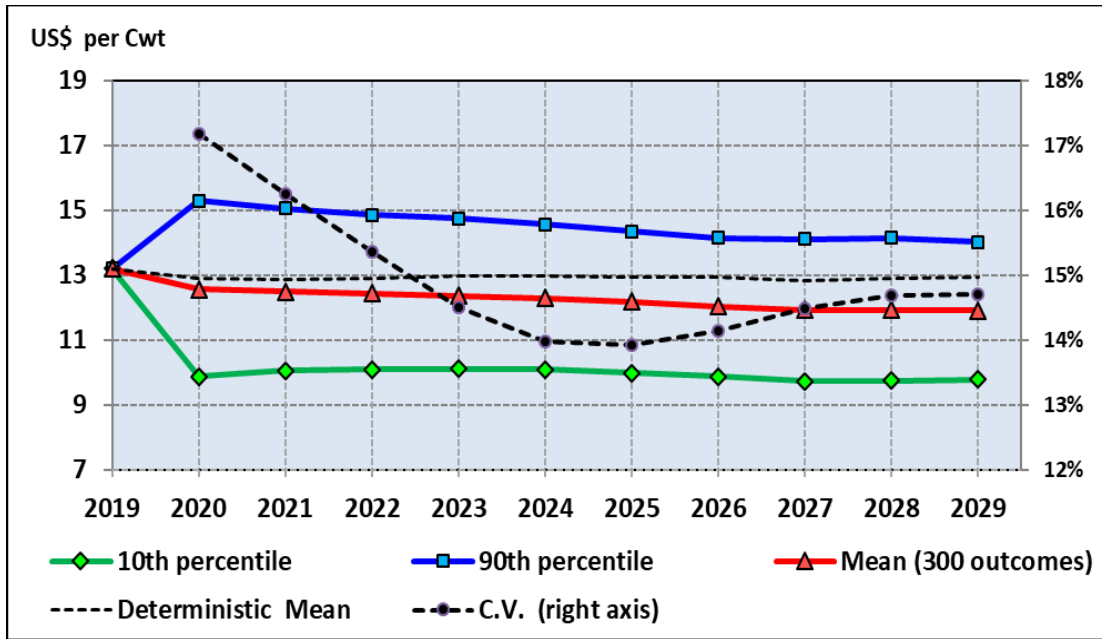


Figure 17 Stochastic Projection of U.S. Season Average All Rice Farm Price, 2016–2029

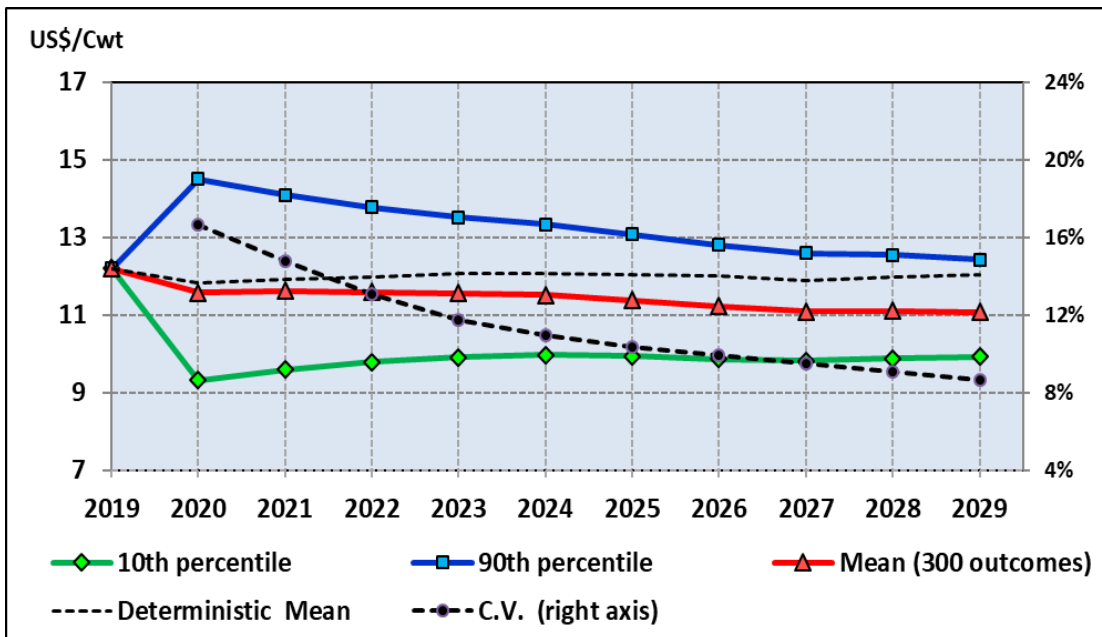


Figure 18. Stochastic Projection of U.S. Long Grain Average Farm Price, 2016–2029

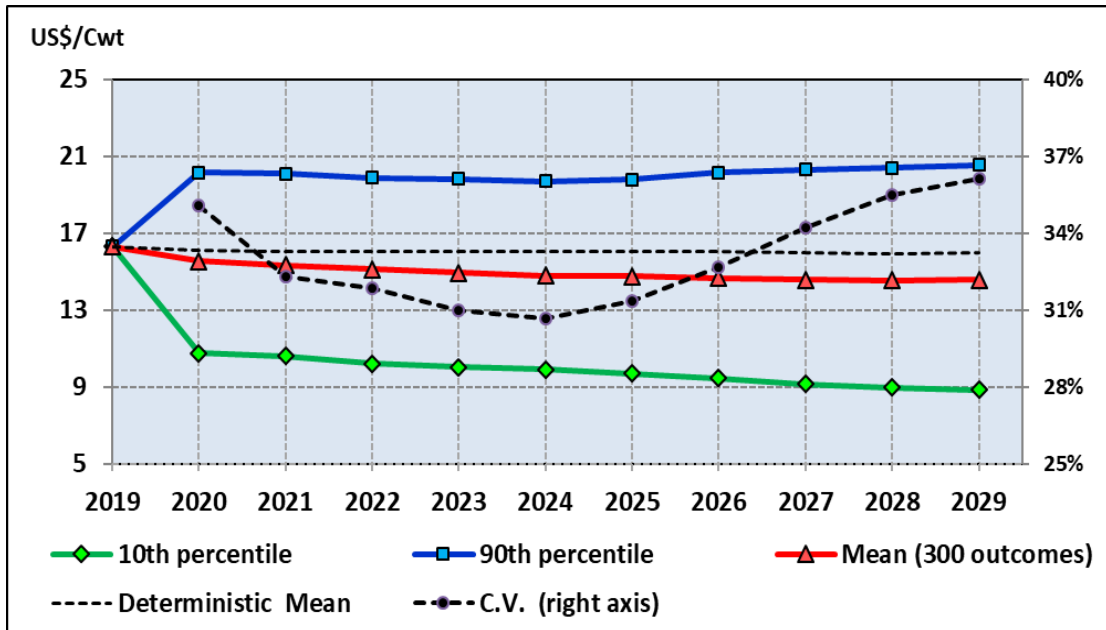


Figure 19a. Stochastic Projection of U.S. Medium Grain Average Farm Price, 2016–2029

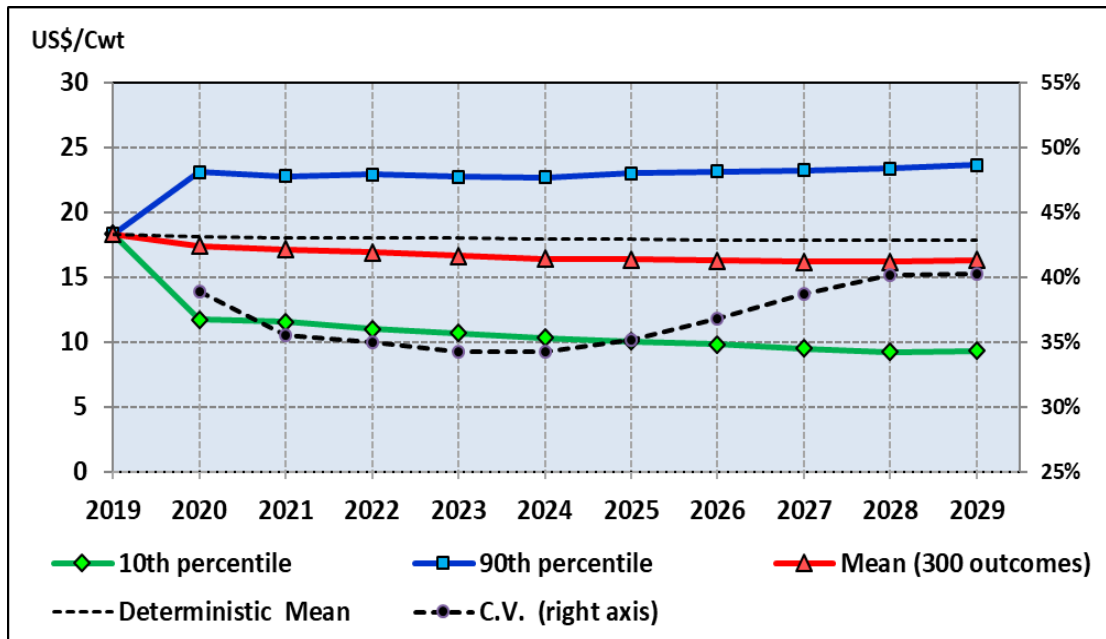


Figure 20b. Stochastic Projection of California Medium Grain (Japonica) Farm Price, 2016–2029

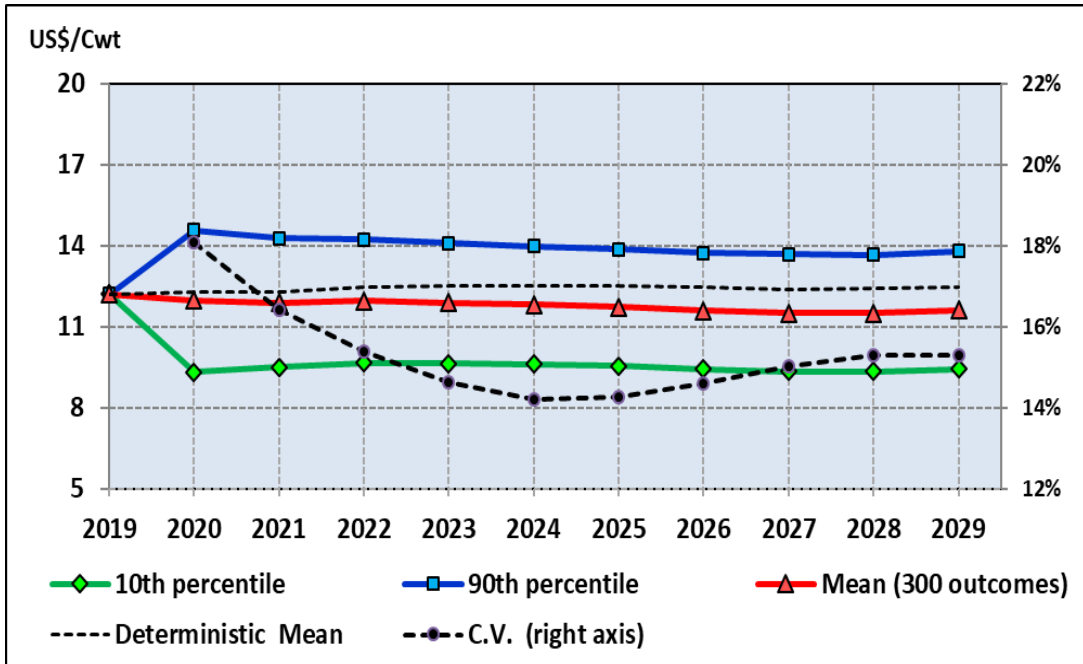


Figure 21c. Stochastic Projection of Southern Medium Grain (non-Japonica) Farm Price, 2016–2029

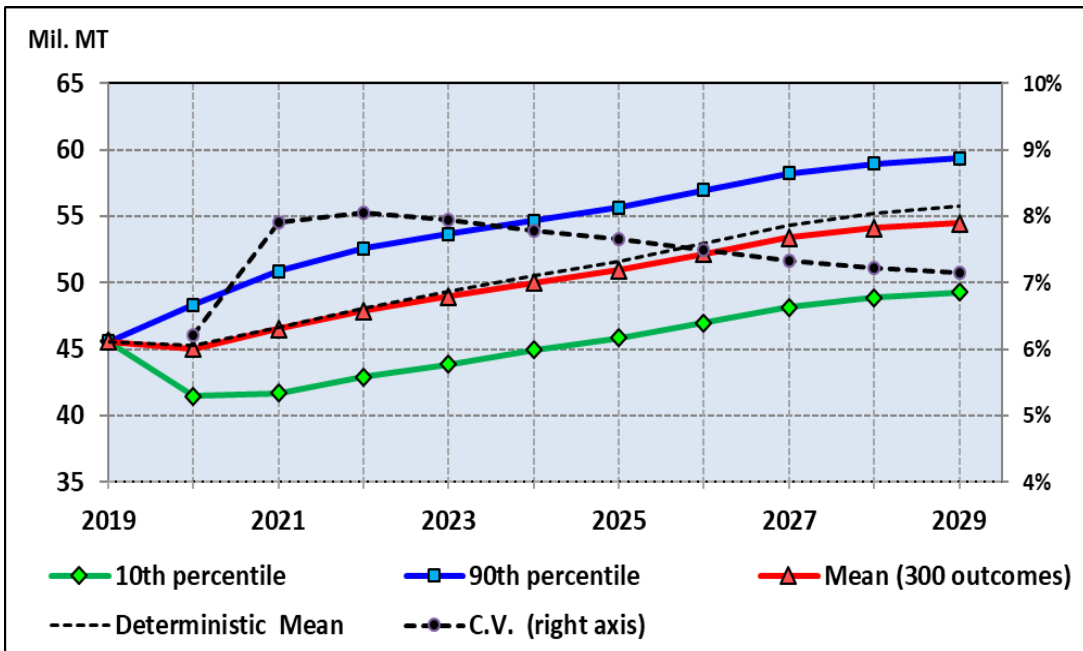


Figure 22a. Stochastic Projection of World Rice Total Trade, 2016–2029

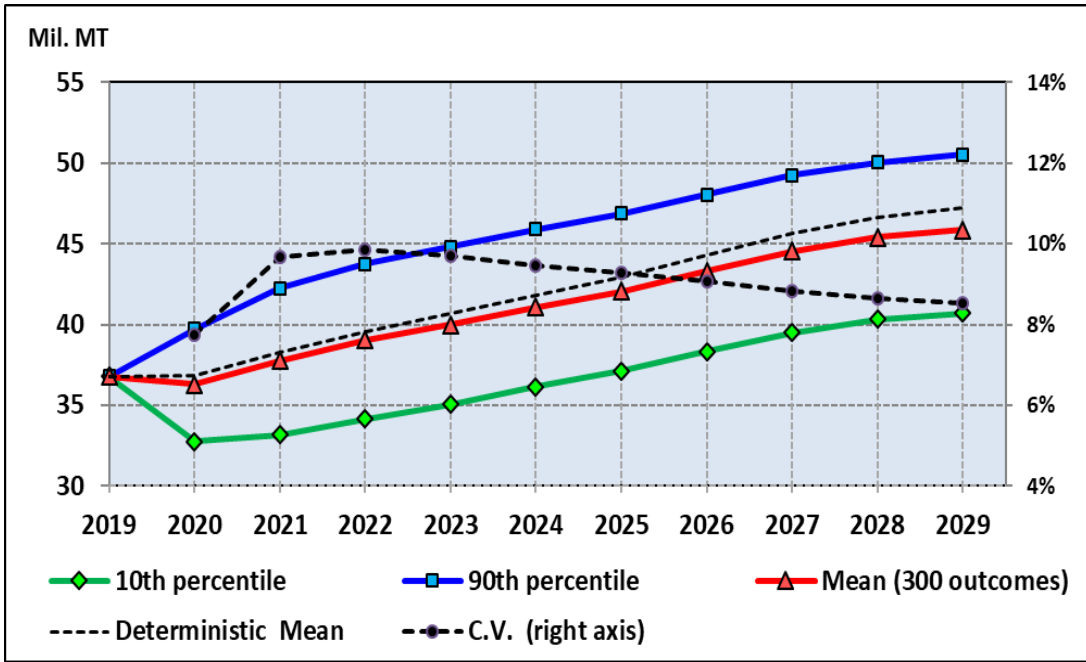


Figure 23b. Stochastic Projection of World Rice Net Trade, 2016–2029

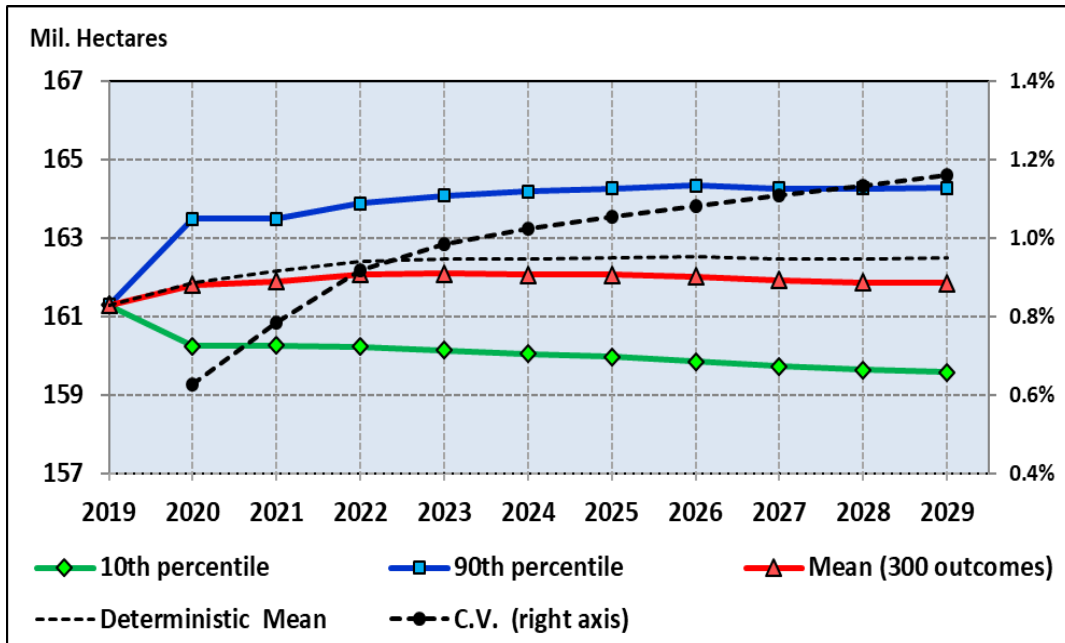


Figure 24. Stochastic Projection of World Rice Area Harvested, 2016–2029

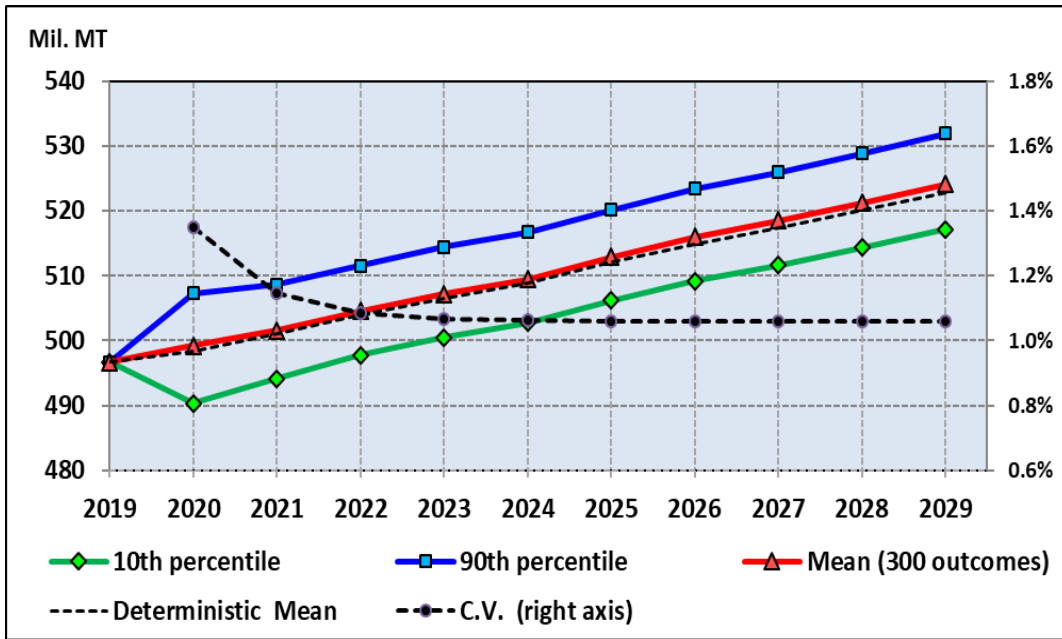


Figure 25 Stochastic Projection of World Rice Milled Production, 2016–2029

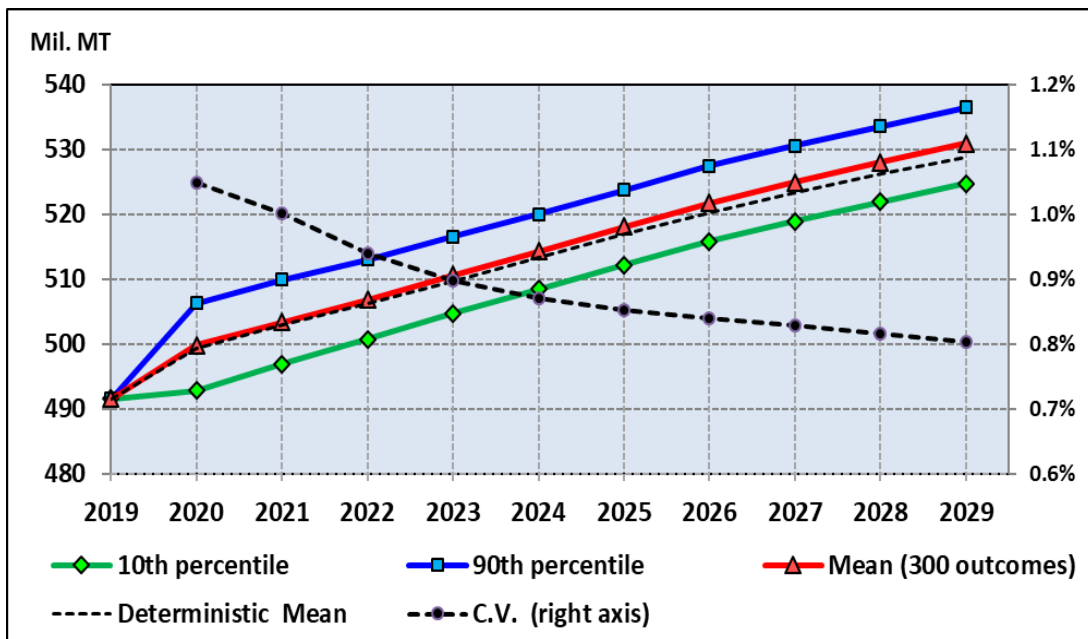


Figure 26 Stochastic Projection of World Total Rice Consumption, 2016–2029

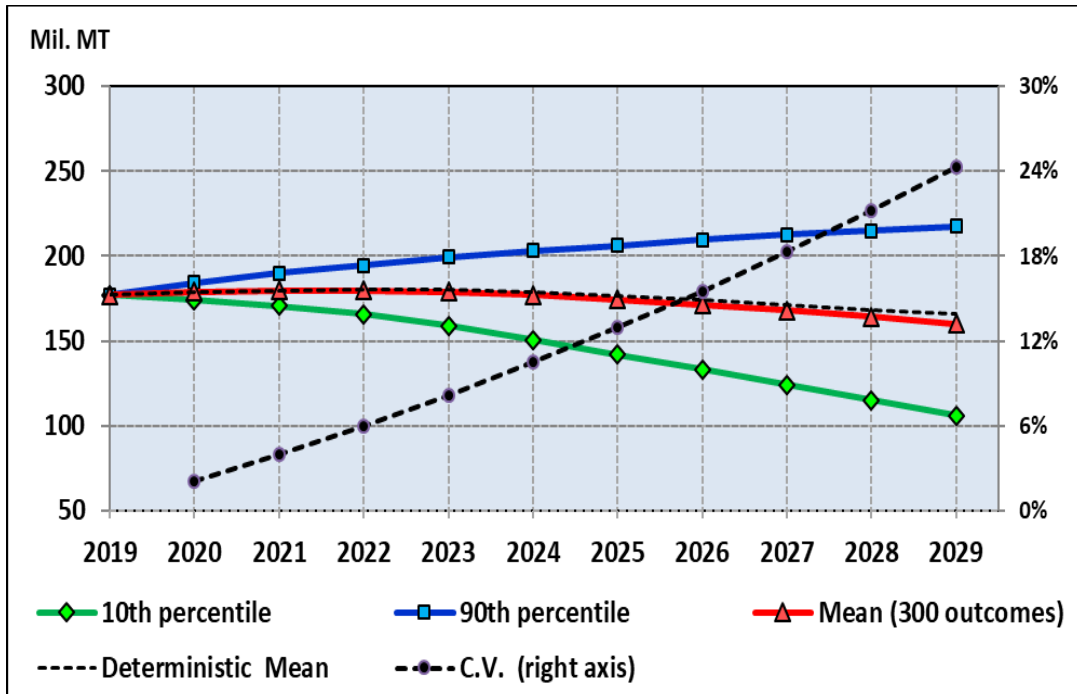


Figure 27 Stochastic Projection of World Rice Ending Stocks, 2016–2029

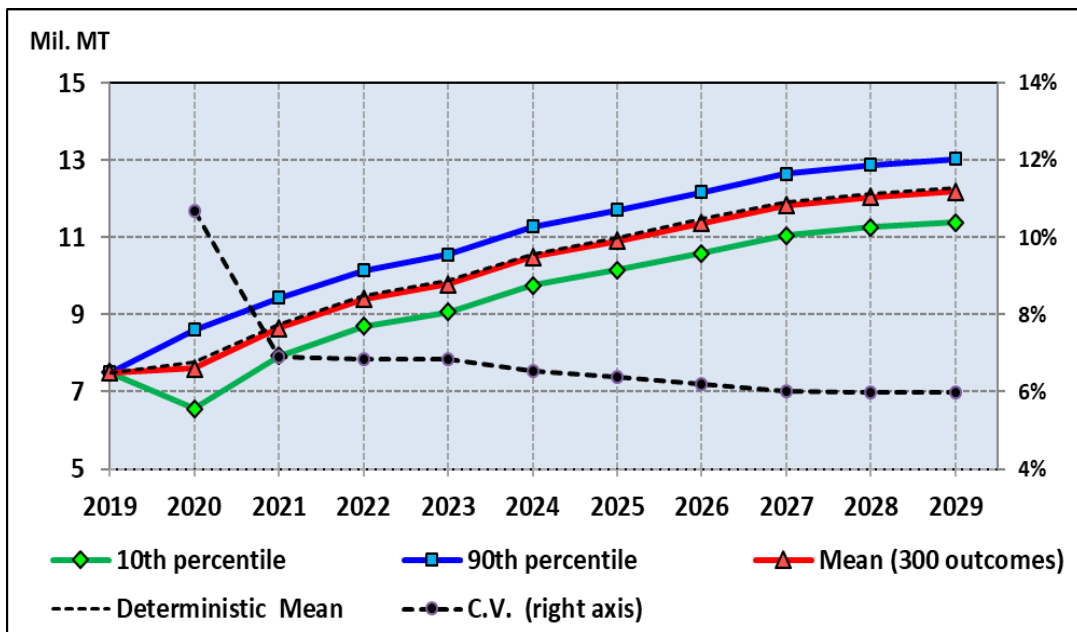


Figure 28 Stochastic Projections of Thailand Rice Exports, 2016–2029

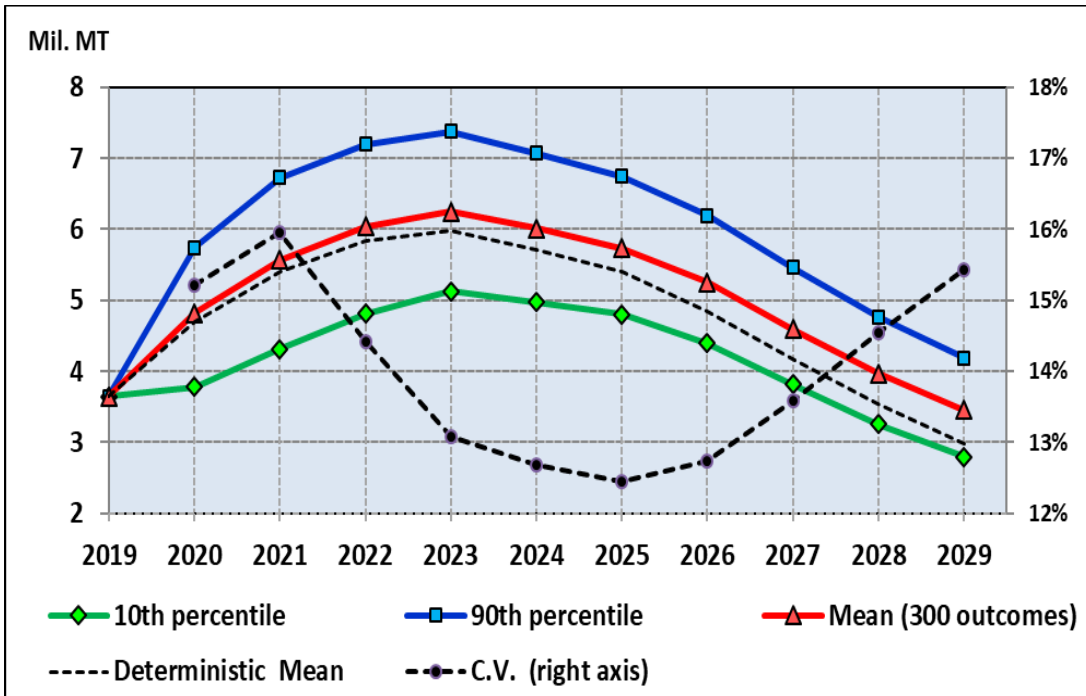


Figure 29 Stochastic Projection of Thailand Rice Ending Stocks, 2016–2029

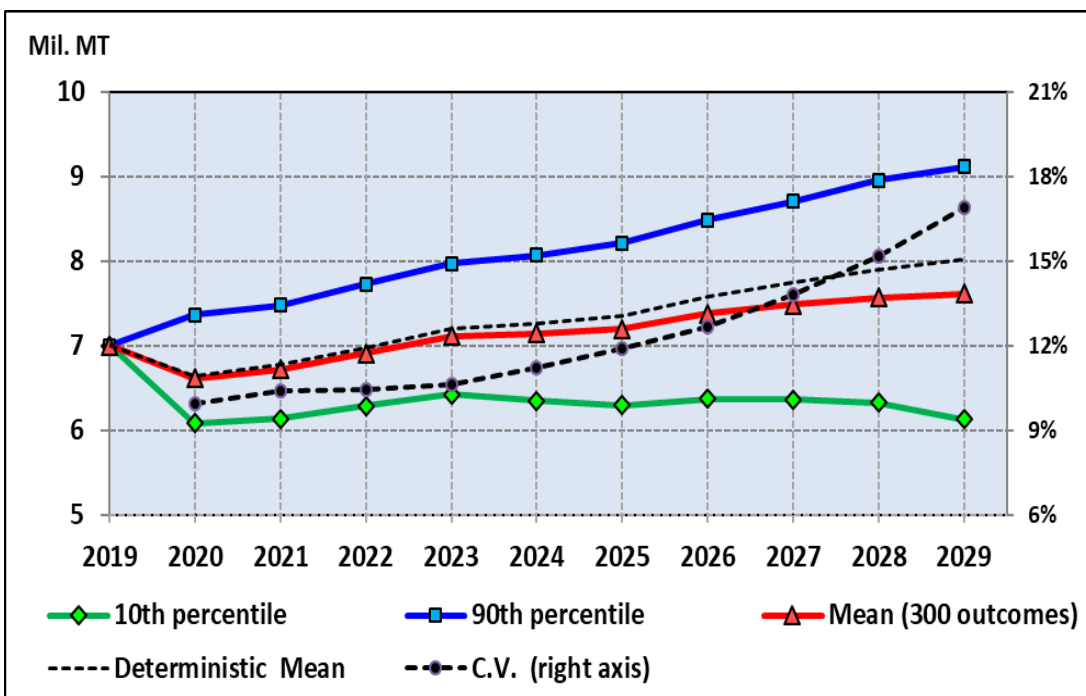


Figure 30. Stochastic Projections of Vietnam Rice Exports, 2016–2029

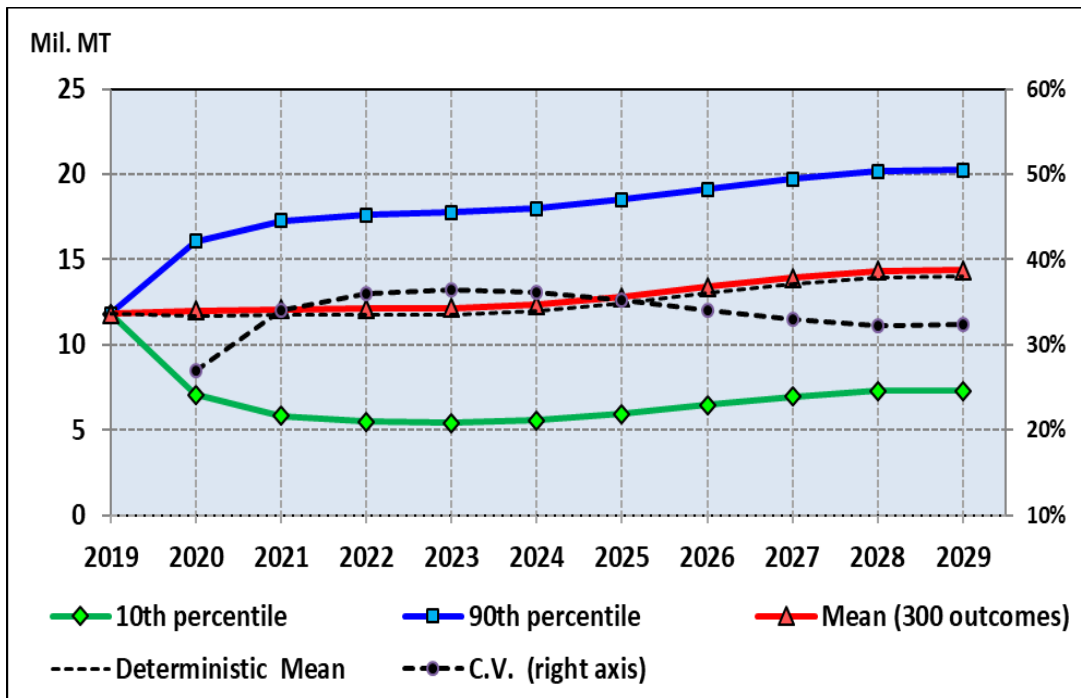


Figure 31. Stochastic Projections of India Rice Exports, 2016–2029

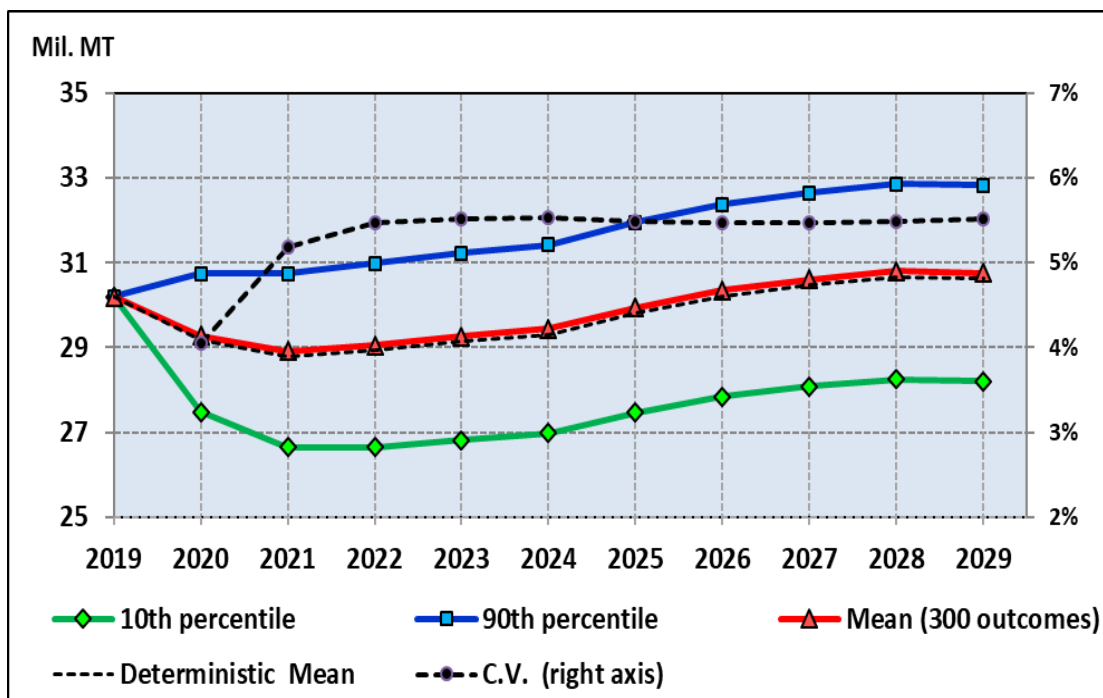


Figure 32. Stochastic Projection of India Rice Ending Stocks, 2016–2029

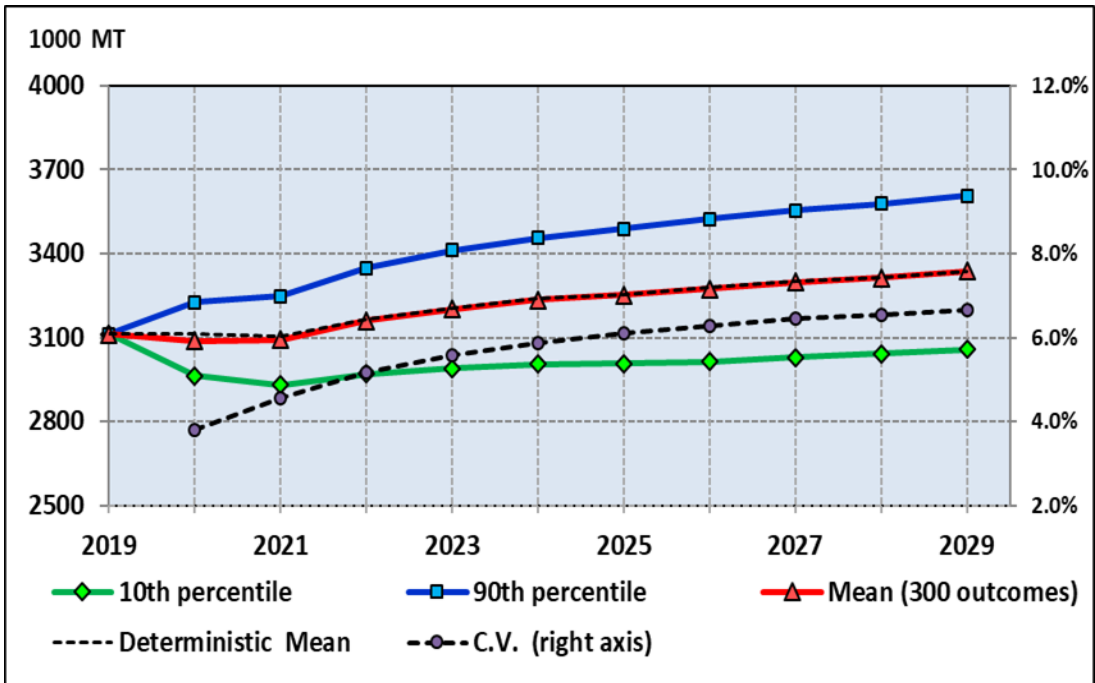


Figure 33a. Stochastic Projections of U.S. Rice Exports, 2016–2029

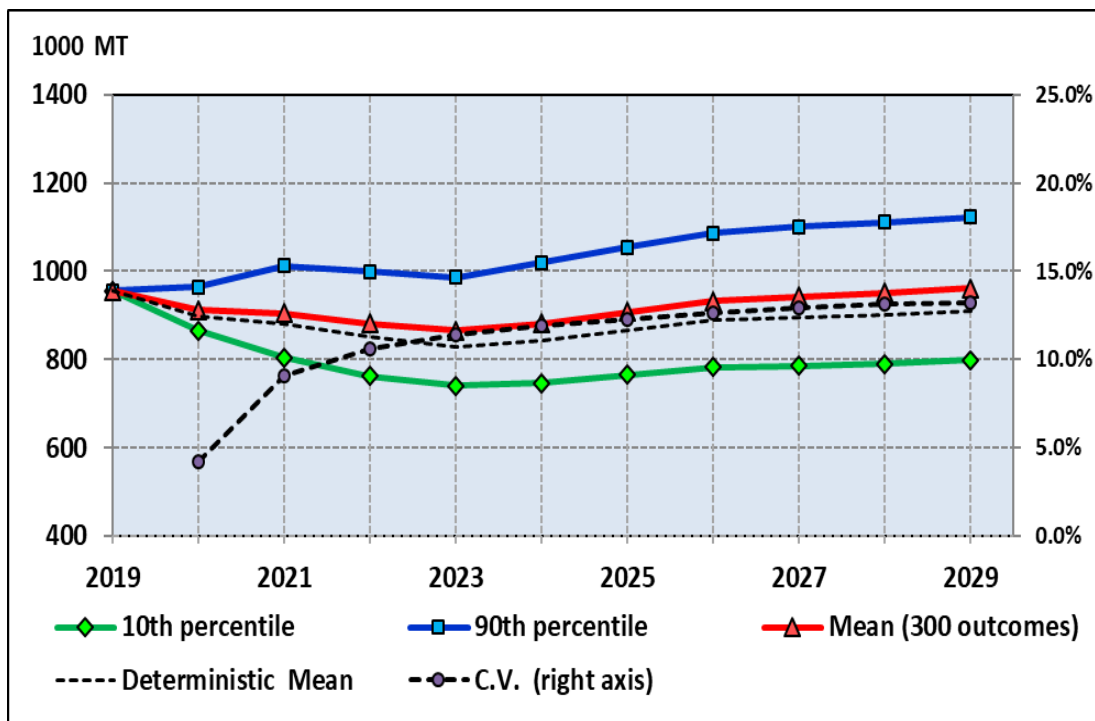


Figure 34b. Stochastic Projections of U.S. Rice Imports, 2016–2029

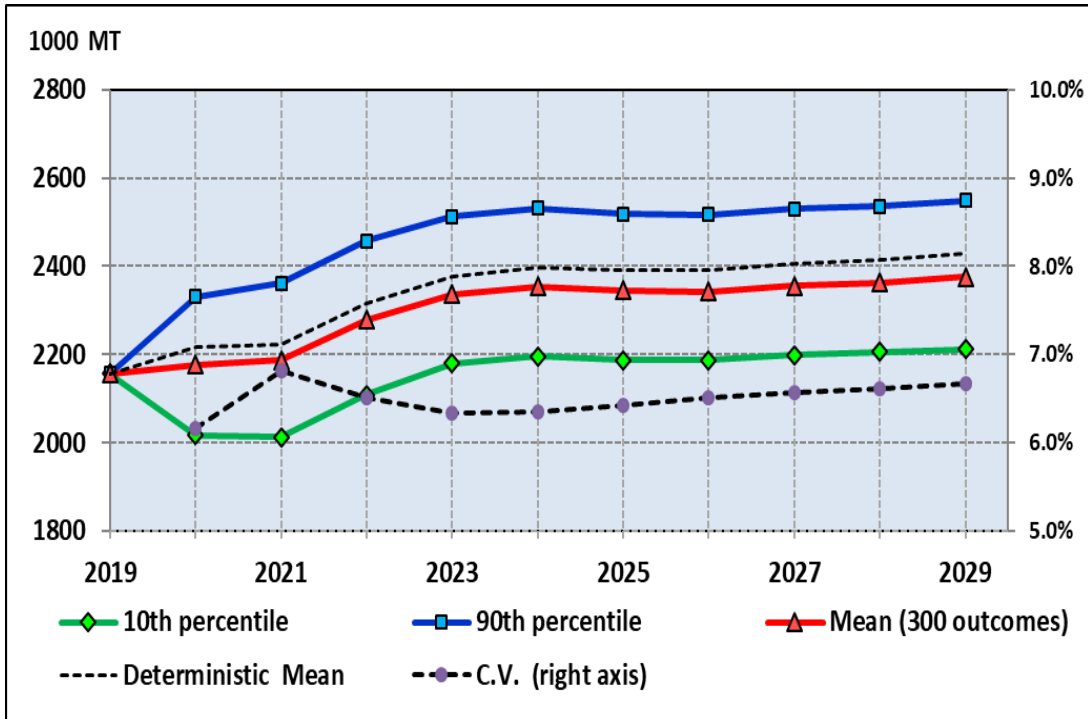


Figure 35c. Stochastic Projections of U.S. Rice Imports, 2016–2029

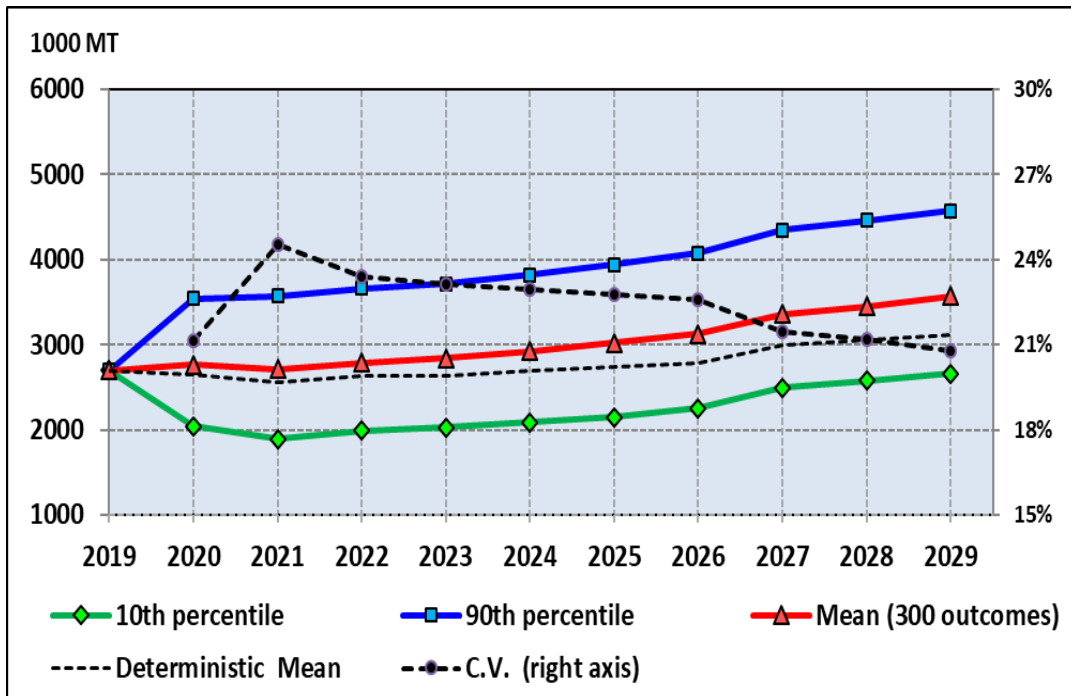


Figure 36. Stochastic Projections of Philippine Rice Imports, 2016–2029

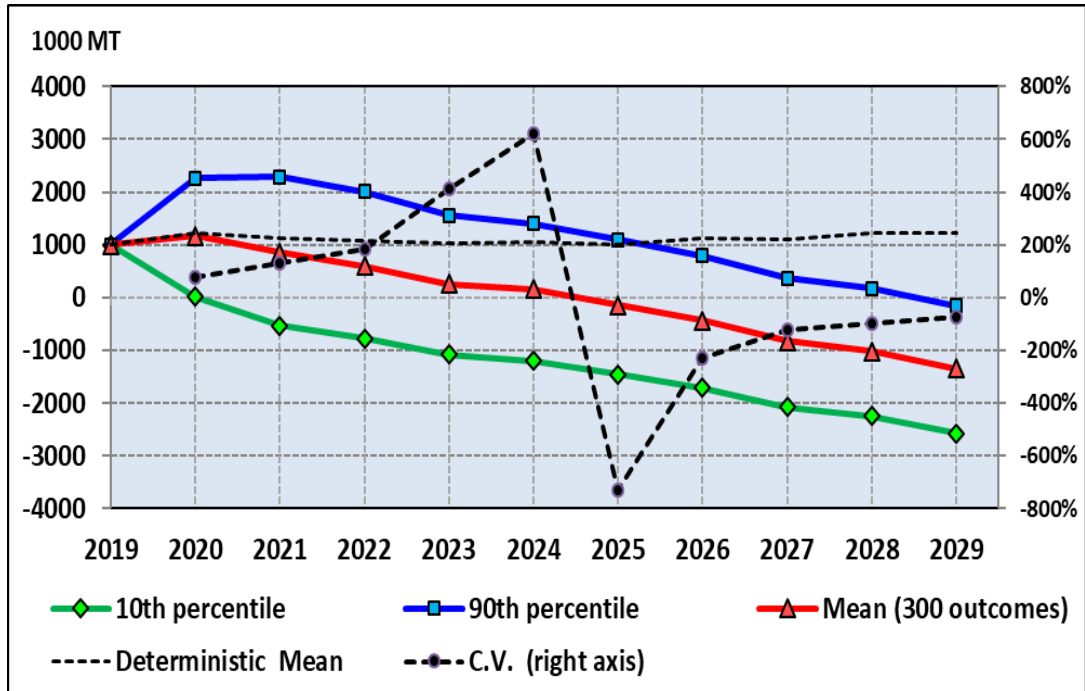


Figure 37. Stochastic Projections of Indonesia Rice Imports, 2016–2029

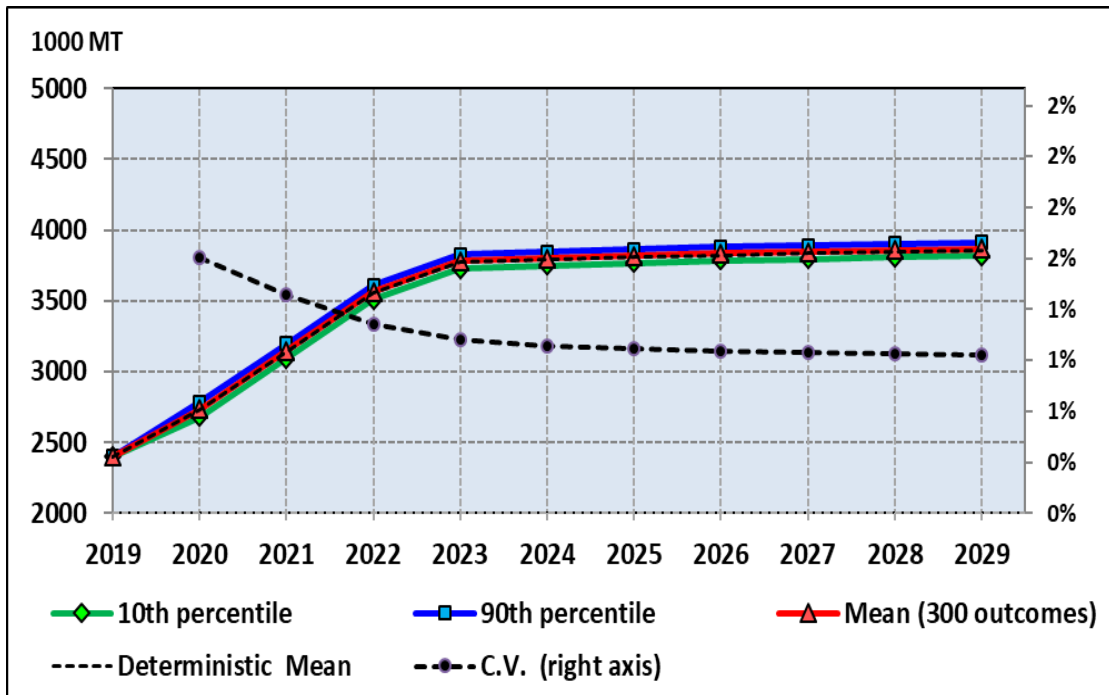


Figure 38a. Stochastic Projections of China Rice Imports, 2016–2029

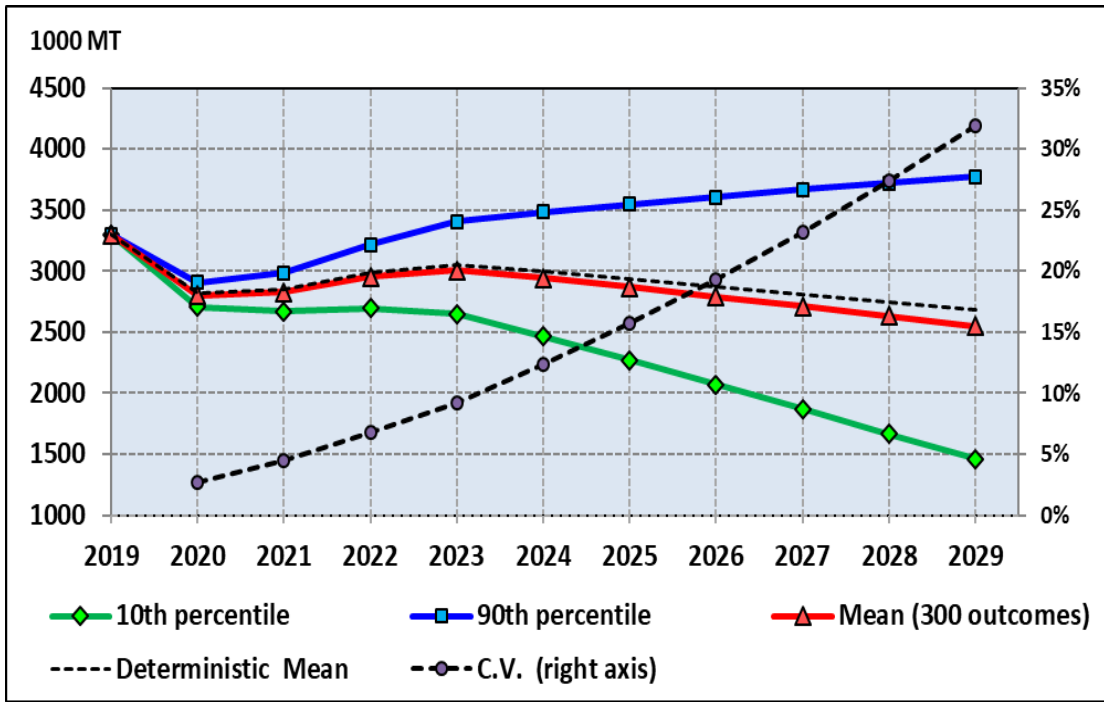


Figure 39b. Stochastic Projections of China Rice Exports, 2016–2029

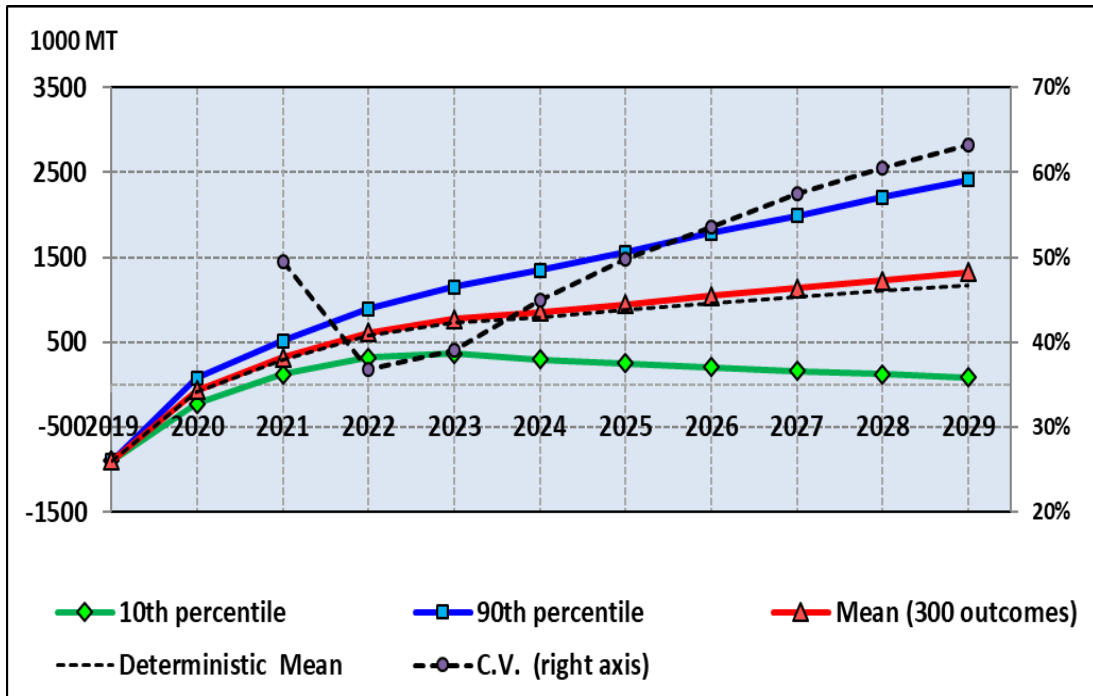


Figure 40c. Stochastic Projections of China Rice Net Imports, 2016–2029

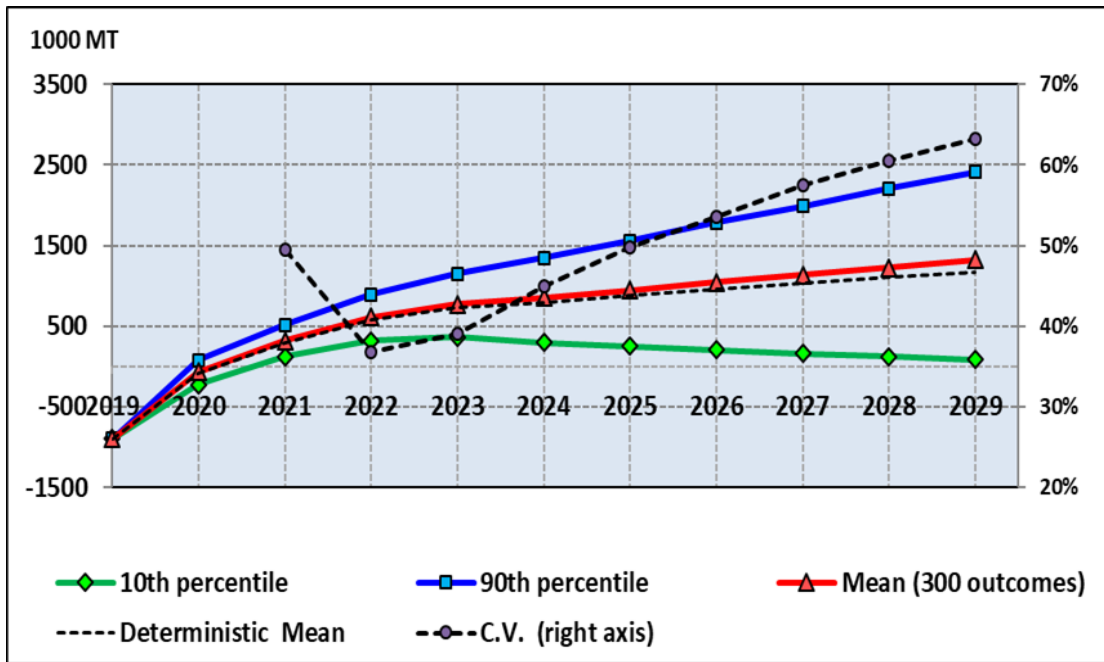


Figure 41d. Stochastic Projections of China Rice Ending Stocks, 2016–2029

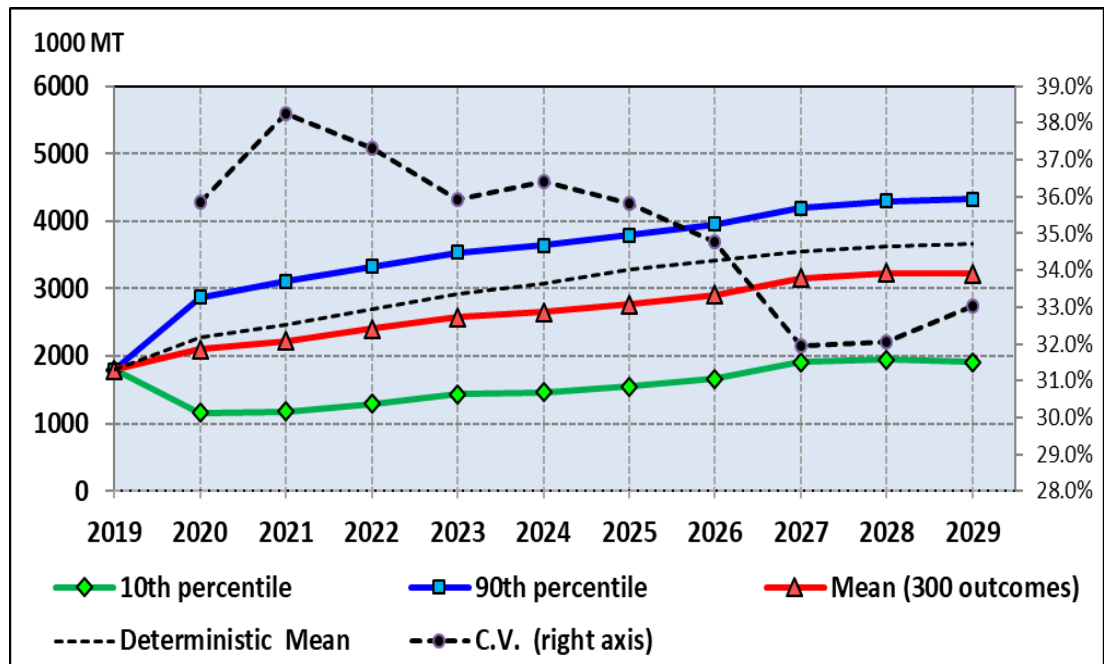


Figure 42 Stochastic Projections of Nigeria Rice Imports, 2016–2029

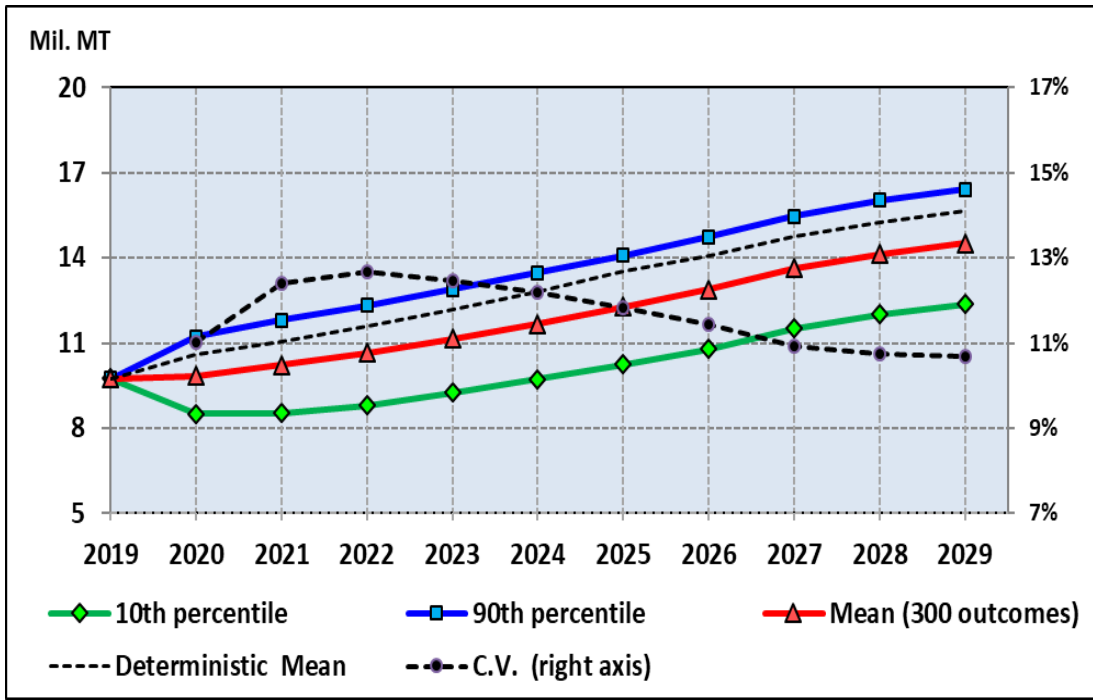


Figure 43. Stochastic Projections of ECOWAS Rice Imports, 2016–2029

References

- Brink, L., D. Orden and C. Zulauf. 2019. "WTO Dispute Panel Report on China's Agricultural Support." *farmdoc daily* (9):40, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, March 6, 2019.
<https://farmdocdaily.illinois.edu/2019/03/wto-dispute-panel-report-on-chinas-agricultural-support.html>. Accessed April 3, 2019
- Durand-Morat, Alvaro, Eddie C. Chavez, and Eric J. Wailes. 2019. "International Rice Outlook. International Rice Baseline Projections, 2018-2028". University of Arkansas Department of Agricultural Economics and Agribusiness, Division of Agriculture.
https://agribusiness.uark.edu/resources/pdf/Rice/International_Rice_Baseline_2018-2028.pdf. Accessed March 30, 2020
- International Centre for Trade and Sustainable Development (ICTSD). 2017. Options for WTO Negotiations on Agriculture Domestic Support. Information Note. Geneva, Switzerland.
https://www.ictsd.org/sites/default/files/research/agriculture_information_note_greenville.pdf
- International Rice Research Institute (IRRI). 2013. "Rice and Poverty."
http://www.irri.org/index.php?option=com_k2&view=item&layout=item&id=9081&lang=en
- Miles Tom and Tom Daly. 2019. "U.S. wins WTO ruling on Chinese grains; decision may also affect India." <https://www.reuters.com/article/us-usa-trade-china-agriculture/u-s-wins-wto-ruling-on-chinese-grains-decision-may-also-affect-india-idUSKCN1QH224>. Accessed April 3, 2019
- Richardson, J.W., K.D. Schumann, and P.A. Feldman. 2009. "Simulation & Econometrics to Analyze Risk." College Station, TX. <http://simetar.com/>
- USDA-ERS. 2020. Rice Outlook. RCS-20A (by Nathan Childs), February 13, 2020.
<https://www.ers.usda.gov/webdocs/publications/95684/rcs-20a.pdf?v=7026.8>
Accessed January 14, 2020
- USDA-FAS. 2020. World Agricultural Supply and Demand Estimates. WASDE-598.
<https://www.usda.gov/oce/commodity/wasde/wasde0320.pdf>. Accessed March 30, 2020
- USDA-FAS. 2020a. World Agricultural Supply and Demand Estimates. WASDE-596.
<https://www.usda.gov/oce/commodity/wasde/wasde0120.pdf>
Accessed January 10, 2020
- USDA-FAS. 2020b. Production, Supply, and Distribution (PSD) Online.
<https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery>
Accessed January 10, 2020
- USDA-FAS. 2019a. People's Republic of China- Rice Auction Sales Boom, September 2019. Gain Report No. CH19060..
https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Grain%20and%20Feed%20Update_Beijing_China%20-

[%20Peoples%20Republic%20of 9-12-2019](#)

Accessed February 10, 2020

USDA-FAS. 2019b. Philippine Grain and Feed Situation and Outlook, March 2019. Gain Report No. RP 1902.

https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Grain%20and%20Feed%20Annual_Manila_Philippines_3-8-2019

Accessed February 10, 2020

USDA-FAS. 2019c. People's Republic of China-Grain and Feed Update. Domestic Corn Prices Recover, Policy Reform Shifts to Rice and Wheat, February 2019. Gain Report No. CH19002.

https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Grain%20and%20Feed%20Update_Beijing_China%20-%20Peoples%20Republic%20of_2-13-2019

Accessed February 10, 2020

USDA-FAS. 2019a. Vietnam Grain and Feed Update Quarterly, January 2019. Gain Report No. VM7070.

https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Grain%20and%20Feed%20Update%20Quarterly_Hanoi_Vietnam_1-5-2019.pdf. Accessed February 27, 2019

Wailes, Eric J. 2005. "Rice global trade, protectionist policies, and the impact of trade liberalization." In *Global Agricultural Trade and Developing Countries*. Eds. M. Ataman Aksoy and John C. Beghin. World Bank.

World Trade Organization (WTO), 2019. DS511: China--Domestic Support for Agricultural Producers. https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds511_e.htm. Accessed April 2, 2019

Appendix 1. Rice Policy Assumptions by Country

Country	Units	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Argentina														
Import Tariff (MFN)	Percent	11	11	11	11	11	11	11	11	11	11	11	11	11
Export Tax	Percent	0	0	0	0	0	0	0	0	0	0	0	0	0
Bangladesh														
Government Procurement Price	Tk/mt	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000
Government Procurement Quantity	1000/mt	600	600	600	600	600	600	600	600	600	600	600	600	600
Import Tariff	Percent	2	2	2	2	2	2	2	2	2	2	2	2	2
Other import taxes	Percent	15	15	15	15	15	15	15	15	15	15	15	15	15
Brazil														
Import Tariff - MFN	Percent	11	11	11	11	11	11	11	11	11	11	11	11	11
Import Tariff - MERCOSUR	Percent	0	0	0	0	0	0	0	0	0	0	0	0	0
Paddy Rice Support Price	R/50kg	18.90	18.90	18.90	18.90	18.90	18.90	18.90	18.90	18.90	18.90	18.90	18.90	18.90
Milled Rice Support Price	R/50kg	34.96	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01
Cambodia														
Import Tariff (milled rice)	Percent	7	7	7	7	7	7	7	7	7	7	7	7	7
Value Added Tax	Percent	10	10	10	10	10	10	10	10	10	10	10	10	10
Cameroon														
Import Tariff	Percent	5	5	5	5	5	5	5	5	5	5	5	5	5
Canada														
Import Tariff – MFN	Percent	0	0	0	0	0	0	0	0	0	0	0	0	0
Chile														
Import Tariff – MFN	Percent	6	6	6	6	6	6	6	6	6	6	6	6	6

Appendix I. Continued.

Country	Units	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
China														
Japonica Rice TRQ	1000 mt	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660
Indica Rice TRQ	1000 mt	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660	2,660
In-quota Tariff Rate	Percent	1	1	1	1	1	1	1	1	1	1	1	1	1
Over-Quota Tariff Rate	Percent	65	65	65	65	65	65	65	65	65	65	65	65	65
Value Added Tax	Percent	11	11	11	11	11	11	11	11	11	11	11	11	11
Japonica Paddy Minimum Price	CY/mt	3,000	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600
Indica Paddy Minimum Price	CY/mt	2,720	2,520	2,520	2,520	2,520	2,520	2,520	2,520	2,520	2,520	2,520	2,520	2,520
Colombia														
Import Tariff - MFN	Percent	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
CTPA TRQ	1000 mt	102.88	107.51	112.35	117.4	122.69	128.21	133.65	140	146.3	152.89	159.77	159.77	159.77
CTPA Over quota Tariff	Percent	80	80	80	80	80	80	80	80	80	80	80	80	80
Wet Paddy Rice Purchase Price	C\$1,000/mt	912	912	912	912	912	912	912	912	912	912	912	912	912
Costa Rica														
Paddy Rice Import Tariff – MFN	Percent	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Brown Rice Import Tariff – MFN	Percent	35	35	35	35	35	35	35	35	35	35	35	35	35
Milled Rice Import Tariff – MFN	Percent	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Guaranteed Paddy Price	CR\$1,000/mt	301	292	292	292	292	292	292	292	292	292	292	292	292
Cote d'Ivoire														
Import Tariff - MFN	Percent	10	10	10	10	10	10	10	10	10	10	10	10	10
Cuba														
Paddy Rice Import tariff – MFN	Percent	10	10	10	10	10	10	10	10	10	10	10	10	10
Milled Rice Import tariff – MFN	Percent	15	15	15	15	15	15	15	15	15	15	15	15	15

Appendix I. Continued.

Country	Units	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Dominican Rep.														
Paddy Rice Import Tariff – MFN	Percent	14	14	14	14	14	14	14	14	14	14	14	14	14
Brown Rice Import Tariff – MFN	Percent	20	20	20	20	20	20	20	20	20	20	20	20	20
Milled Rice Import Tariff – MFN	Percent	20	20	20	20	20	20	20	20	20	20	20	20	20
U.S. Paddy Rice Import Tariff – CAFTA	Percent	83.2	75.2	67.3	20	47.5	35.6	23.8	11.9	0	0	0	0	0
U.S. Brown Rice Import Tariff – CAFTA	Percent	83.2	75.2	67.3	20	47.5	35.6	23.8	11.9	0	0	0	0	0
U.S. Milled Rice Import Tariff – CAFTA	Percent	83.2	75.2	67.3	20	47.5	35.6	23.8	11.9	0	0	0	0	0
U.S. Brown Rice TRQ	1,000 mt	3.7	3.8	4	20	4.2	4.4	4.5	4.7	N/L	N/L	N/L	N/L	N/L
U.S. Milled Rice TRQ	1,000 mt	14.7	15.3	15.8	20	17	17.5	18.1	18.6	N/L	N/L	N/L	N/L	N/L
Egypt														
Government Paddy Purchase Price	EGP/mt	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
EU-28														
Brown (husked) Rice TRQ--ACP/OCT	1000 mt	125	125	125	125	125	125	125	125	125	125	125	125	125
Broken Rice TRQ--ACP/OCT	1000 mt	20	20	20	20	20	20	20	20	20	20	20	20	20
Milled Rice TRQ--Everything But Arms (EBA)	1000 mt	650	675	700	725	750	775	800	825	850	875	900	900	900
Average Applied Tariff	Euro/mt	15.8	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
Milled Rice In-quota Tariff-- (EBA)	Euro/mt	0	0	0	0	0	0	0	0	0	0	0	0	0
Brown (husked) Rice--General Import Tariff	Euro/mt	30	30	30	30	30	30	30	30	30	30	30	30	30
Milled Rice--General Import Tariff	Euro/mt	175	175	175	175	175	175	175	175	175	175	175	175	175
Rice Intervention Price	Euro/mt	0	0	0	0	0	0	0	0	0	0	0	0	0
Ghana														
Import Tariff - MFN	Percent	20	20	20	20	20	20	20	20	20	20	20	20	20
Value-Added Tax	Percent	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Other taxes levied on imports	Percent	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Guatemala														
Import Tariff - MFN	Percent	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7

Appendix I. Continued.

Country	Units	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	
Guinea															
Import Tariff - MFN	Percent	15	15	15	15	15	15	15	15	15	15	15	15	15	
Guyana															
Import Tariff - MFN	Percent	21.88	21.88	21.88	21.88	21.88	21.88	21.88	21.88	21.88	21.88	21.88	21.88	21.88	
Haiti															
Import Tariff - MFN	Percent	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	4.38	
Honduras															
Import Tariff - MFN	Percent	45	45	45	45	45	45	45	45	45	45	45	45	45	
Guaranteed Wet Paddy Price	L/cwt.	420	420	420	420	420	420	420	420	420	420	420	420	420	
India															
Import Tariff - MFN	Percent	70	70	70	70	70	70	70	70	70	70	70	70	70	
Minimum Support Price (MSP) Low	INR/mt	1,550	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	
Minimum Support Price (MSP) A grade	INR/mt	1,590	1,770	1,770	1,770	1,770	1,770	1,770	1,770	1,770	1,770	1,770	1,770	1,770	
Indonesia															
Import Tariff - MFN	Rp/kg	450	450	450	450	450	450	450	450	450	450	450	450	450	
Wet Paddy Purchase Price	Rp/kg	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	
Dry Paddy Purchase Price	Rp/kg	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	
Government Milled Rice Purchase Price	Rp/kg	7,300	7,300	7,300	7,300	7,300	7,300	7,300	7,300	7,300	7,300	7,300	7,300	7,300	
Urea Maximum Retail Price	Rp/kg	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	
Japan															
Import Markup	1,000 Yen/mt	133	141	134	128	127	131	133	133	131	131	134	134	134	
Special Safeguard Duty	1,000 Yen/mt	329	329	329	329	329	329	329	329	329	329	329	329	329	
Import Tariff - MFN	1,000 Yen/mt	341	341	341	341	341	341	341	341	341	341	341	341	341	
Minimum Access Import Level	1,000 mt	682	682	682	682	682	682	682	682	682	682	682	682	682	

Appendix I. Continued.

Country	Units	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	
Kenya															
SOA Import Tariff (or \$200 if higher)	Percent	35	35	35	35	35	35	35	35	35	35	35	35	35	
EAC CET (75% or \$345 if higher)	Percent	75	75	75	75	75	75	75	75	75	75	75	75	75	
Lao PDR															
Import Tariff	Percent	0	0	0	0	0	0	0	0	0	0	0	0	0	
Liberia															
Import Tariff - MFN	Percent	0	0	0	0	0	0	0	0	0	0	0	0	0	
Madagascar															
Import Tariff	Percent	0	0	0	0	0	0	0	0	0	0	0	0	0	
Malawi															
Import Tariff - MFN	Percent	10	10	10	10	10	10	10	10	10	10	10	10	10	
Import Tariff - SADC and COMESA	Percent	0	0	0	0	0	0	0	0	0	0	0	0	0	
Malaysia															
Milled Rice--Applied Tariff (AFTA)	Percent	20	20	20	20	20	20	20	20	20	20	20	20	20	
Import Tariff - MFN	Percent	40	40	40	40	40	40	40	40	40	40	40	40	40	
Mali															
Import Tariff	Percent	10	10	10	10	10	10	10	10	10	10	10	10	10	
Mexico															
Paddy Rice Import Tariff - MFN	Percent	9	9	9	9	9	9	9	9	9	9	9	9	9	
Milled Rice Import Tariff - MFN	Percent	20	20	20	20	20	20	20	20	20	20	20	20	20	
TRQ for non-FTA	1000 mt	150	150	150	150	150	150	150	150	150	150	150	150	150	
TRQ in-quota Tariff	Percent	0	0	0	0	0	0	0	0	0	0	0	0	0	
Irrigated Rice Land Support	MXN/ha	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	
Non-irrigated Rice Land Support	MXN/ha	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	

Appendix I. Continued.

Country	Units	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Mozambique														
Import Tariff - Broken Rice	Percent	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Import Tariff - Whole Rice	Percent	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Myanmar														
Paddy Floor Price	K1,000/mt	0	500	500	500	500	500	500	500	500	500	500	500	500
Nicaragua														
MFN Import Tariff - Paddy Rice	Percent	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
MFN Import Tariff - Milled Rice	Percent	60	60	60	60	60	60	60	60	60	60	60	60	60
Nigeria														
Import Tariff – Domestic Producers	Percent	30	30	30	30	30	30	30	30	30	30	30	30	30
Import Tariff – Exclusive Importers	Percent	70	70	70	70	70	70	70	70	70	70	70	70	70
Import Levy (addition to tariff)	Percent	50	50	50	50	50	50	50	50	50	50	50	50	50
Other import tax and surcharge	Percent	12	12	12	12	12	12	12	12	12	12	12	12	12
Pakistan														
Import Tariff - MFN	Percent	11	11	11	11	11	11	11	11	11	11	11	11	11
Value-Added Tax	Percent	15	15	15	15	15	15	15	15	15	15	15	15	15
Panama														
Import Tariff - MFN	Percent	90	90	90	90	90	90	90	90	90	90	90	90	90
Paraguay														
Import Tariff - MFN	Percent	11	11	11	11	11	11	11	11	11	11	11	11	11
Peru														
Import Tariff - MFN	Percent	0	0	0	0	0	0	0	0	0	0	0	0	0
Price Band – Minimum	USD/mt	408	599	599	599	599	599	599	599	599	599	599	599	599
Price Band – Maximum	USD/mt	480	669	669	669	669	669	669	669	669	669	669	669	669
Maximum protection level	Percent	15	15	15	15	15	15	15	15	15	15	15	15	15

Appendix I. Continued.

Country	Units	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Philippines														
MAV (TRQ) import quantity	1000 mt	805.2	805.2	805.2	805.2	805.2	805.2	805.2	805.2	805.2	805.2	805.2	805.2	805.2
Milled Rice In-quota Tariff - MFN	Percent	35	35	35	35	35	35	35	35	35	35	35	35	35
Rwanda														
Import Tariff (MFN or \$345 if higher)	Percent	45	45	45	45	45	45	45	45	45	45	45	45	45
Senegal														
MFN Import Tariff - Paddy Rice	Percent	5	5	5	5	5	5	5	5	5	5	5	5	5
MFN Import Tariff - Milled Rice	Percent	10	10	10	10	10	10	10	10	10	10	10	10	10
Sierra Leone														
Import Tariff	Percent	10	10	10	10	10	10	10	10	10	10	10	10	10
South Africa														
Import Tariff - MFN	Percent	0	0	0	0	0	0	0	0	0	0	0	0	0
South Korea														
In-Quota Tariff Rate	Percent	5	5	5	5	5	5	5	5	5	5	5	5	5
Over-Quota Tariff rate (MFN)	Percent	513	513	513	513	513	513	513	513	513	513	513	513	513
Minimum Access Import Level	1000 mt	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7	408.7
Sri Lanka														
Specific Import Duty	Percent	30	30	30	30	30	30	30	30	30	30	30	30	30
Taiwan														
Minimum Access TRQ	1000 mt	126	126	126	126	126	126	126	126	126	126	126	126	126
Tanzania														
Import Tariff (MFN or \$345 if higher)	Percent	75	75	75	75	75	75	75	75	75	75	75	75	75

Appendix I. Continued.

Country	Units	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Thailand														
Pledging subsidies for White 5% Paddy	Baht/mt	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100
Loan Price for White 5% Paddy	Baht/mt	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200
Turkey														
MFN Import Tariff - Paddy Rice	Percent	34	34	34	34	34	34	34	34	34	34	34	34	34
MFN Import Tariff - Milled Rice	Percent	45	45	45	45	45	45	45	45	45	45	45	45	45
Production Premium	TL/mt	100	100	100	100	100	100	100	100	100	100	100	100	100
Production Subsidy	TL/ha	190	190	190	190	190	190	190	190	190	190	190	190	190
Uruguay														
Import Tariff - MFN	Percent	11	11	11	11	11	11	11	11	11	11	11	11	11
United States														
Base Area	1000 ac	4,390	4,390	4,390	4,390	4,390	4,390	4,390	4,390	4,390	4,390	4,390	4,390	4,390
Import Tariff - MFN	Percent	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
Price Loss Coverage (PLC):														
PLC Reference Price Long grain	\$/cwt	14	14	14	14	14	14	14	14	14	14	14	14	14
PLC Reference Price South-Medium	\$/cwt	14	14	14	14	14	14	14	14	14	14	14	14	14
PLC Reference Price Japonica	\$/cwt	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
Loan Rate	\$/cwt	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Venezuela														
Import Tariff - MFN	Percent	11.08	11.08	11.08	11.08	11.08	11.08	11.08	11.08	11.08	11.08	11.08	11.08	11.08
Vietnam														
Import Tariff - MFN	Percent	40	40	40	40	40	40	40	40	40	40	40	40	40
Guaranteed Purchase Price - Paddy Rice	1000VD/mt	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Zambia														
Food Reserve Purchase Paddy Price	MWK/mt	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
Import Tariff - MFN	Percent	15	15	15	15	15	15	15	15	15	15	15	15	15