AGREP

Arkansas Global Rice Economics Program

International Rice Outlook
International Rice Baseline Projections, 2018–2028

Report Prepared by

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Any errors in this report are solely the responsibility of the authors.

Abstract

Over the next decade, the average global rice price is projected to increase steadily at 1.4% annually as net global trade grows at 1.6% and global stocks become relatively tighter over the same period. Thailand and India maintain their dominant role in global trade as the top rice exporters, while China and Nigeria remain the major global rice importers. The growth in global rice trade over the next decade is accounted for by expansion in export shipments from Thailand, India, Vietnam, Cambodia, U.S., and Myanmar and strong import demand from countries in Western Africa and the Middle East.

Global rice production is projected to grow 0.4% annually, on average, in the next decade, driven primarily by yield improvements, as harvested area remains relatively stagnant. Global rice consumption is expected to grow 0.8% a year, on average, based exclusively on population growth, as average per-capita consumption is projected to decline by 0.3 a year in the baseline. The growth in demand will outpace the growth in supply, thus, leading to a reduction in global rice stocks by the end of the same period.

In light of the volatility/risk of the global rice economy, a stochastic analysis is included in this report to provide a better understanding of the probable distribution of future outcomes. The projections suggest a decrease (increase) in the risk of long grain (medium grain) rice prices over the projected period.

Keywords: rice, Arkansas Global Rice Model, international baseline projection

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

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Introduction

This outlook presents a baseline for the current state and the likely direction of the global rice economy over the next decade by assessing potential supply and demand behaviors. While the projections are not necessarily predictions, probability estimates are included for certain key variables that could be used as indications of inherent risks associated with rice production and the global rice market in general.

The deterministic and stochastic 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.

The AGRM researchers have benefited 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 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, 2018).

The historical rice data is obtained from the Production, Supply, and Distribution (PS&D) online database (USDA-FAS, 2019a), World Agricultural Supply and Demand Estimates (USDA-FAS, 2019b), and Rice Outlook (USDA-ERS, 2019) as of February 2019. The AGRM rice marketing years by country follows the USDA system. For example, *the year 2018 or marketing year 2018/2019* in the model refers to January 2019–December 2019 for Thailand, Vietnam, and Indonesia; October 2018–September 2019 for India; July 2018–June 2019 for the Philippines; August 2018–July 2019 for the U.S.; and April 2019–March 2020 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 10-year period ending in 2028.

The AGRM is disaggregated into 70 of the major countries and regions 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).[2] 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 as well as for each of 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 it 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. (2008).

Overview of Global Rice Policies

The global rice economy continues to be one of the most policy-distorted commodity 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 making them more self-sufficient in rice, a basic food staple in many countries.

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, which have declined over the years relative to urban incomes.

[2] 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.

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

A number of recent developments on the policy front that have important implications for global rice trade are presented below. To maintain clarity and conciseness, most of the text is quoted verbatim from the original sources.

1. **WTO's resolution on U.S. complaint about China's domestic support that favors Chinese agricultural producers**

   In September 2016, the United States filed a complaint with WTO "regarding certain measures through which China appears to provide domestic support in favor of its agricultural producers, in particular, to those producing wheat, India rice, Japonica rice and corn—inconsistent with previous Agreement on Agriculture (AoA)" (WTO, 2019).
   This dispute concerns China's provision of domestic support, in the form of market price support (MPS) for producers of each of wheat, Indica rice, Japonica rice, and corn from the four-year period 2012–2015. The focal issue of this dispute was the calculation of the value of China's MPS provided to producers of wheat, rice, and corn.

   The final report of the WTO dispute panel decided in favor of the U.S., concluding that "having determined all components necessary to compute China's market price support for wheat, Indica rice and Japonica rice, the panel performed the calculation and found that in each of the years 2012–2015, China exceeded its 8.5% *de minimis* level of support for each of these products. The panel then found that because China's level of support exceeded the *de minimis* level, it was also in excess of China's commitment level of "nil" specified in Section I of Part IV of China's Schedule CLII. On that basis, the panel concluded that China acted inconsistently with its obligations under Articles 3.2 and 6.3 of the AoA" (WTO, 2019).

   Brink, Orden, and C. Zulauf (2019) summarized the calculation adopted by the WTO panel as follows: "In calculating support for wheat and rice, the panel adopted the U.S. view on the appropriate quantity (based on production, not government purchases) of eligible production and China's view on the appropriate base years (1996–98, not 1986–88) for the fixed external reference price. The panel confirmed the need to compare prices for rice at the same processing level and used the conversion factor proposed by China."

   Miles and Daly (2019) mentioned that the "WTO adjudication panel agreed with the U.S. complaint that China had paid farmers too much for wheat, Indica rice and Japonica rice in 2012–2015." Brink, Orden, and C. Zulauf (2019) added that "the support prices provide a floor under China's producer prices and thus provide incentives for China to produce more than it would at the lower international prices."

   This WTO ruling can have significant implications for the Chinese and global rice markets, including China's rice imports and stocks, in the coming years. However, China will almost certainly appeal this ruling, which can delay a final resolution and allow China to continue its market interventions.

2. **European Union's re-imposition of duties to rice imports from Myanmar and Cambodia**
   In January 2019, the European Union (EU) restored the normal import duty for Indica rice from Myanmar and Cambodia as a safeguard against the significant increase in imports from these origins. The customs duty for rice will be 175 Euros (about $200) per ton in the first year and will be reduced to 150 Euros in the second year and 125 Euros in the third year (Live Rice index, 2019).

   Cambodia and Burma are the beneficiaries of the EU's "Everything but Arms" (EBA) trade regime, which unilaterally grants least developed countries duty- and quota-free access to the European markets (except for arms and ammunition).

3. **Egypt's water policy**
   In an effort to ameliorate its severe water shortage situation, Egypt is setting limits on area planted to rice, hence curbing rice production. Only recently have its measures reportedly succeeded with the enforcement of fines, resulting in a large drop in area planted in marketing year 2018/19, although the crop area harvested was still above the limit of 347,000 hectares set by the ministry.
   The government authorized 451,920 hectares of rice to be planted in 2019, up from 304,080 hectares in 2018. Farmers planting rice outside the allotment area face stiff fines (USDA-FAS, 2019c).

4. **Philippine rice import policy**
   In February 2019, the Philippine President signed into law Republic Act (RA) No. 11203 (amending RA No. 8178), replacing rice import quantitative restrictions with tariffs. Implementing Rules and Regulations will be issued within 45 days. The new law has the following components (USDA-FAS, 2019d):

- The Minimum Access Volume (MAV) will revert to its 2012 level of 350,000 tons from 805,200 tons.
- In-quota Most Favored Nation (MFN) rates will remain at 35%.
- For out-quota imports, the MFN tariff is raised from 50% to 180%.
- In- and out-quota imports from countries of the Association of Southeast Asian Nations (ASEAN) will be levied a uniform 35% duty.
- The specific role of the NFA has been sharply reduced to buffer-stocks management.
- A *Rice Competitiveness Enhancement Fund* will be created with an annual appropriation of $192.3 million through the next six years.
- A special rice safeguard duty shall be imposed for the industry's protection from extreme or sudden price fluctuations.

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 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.

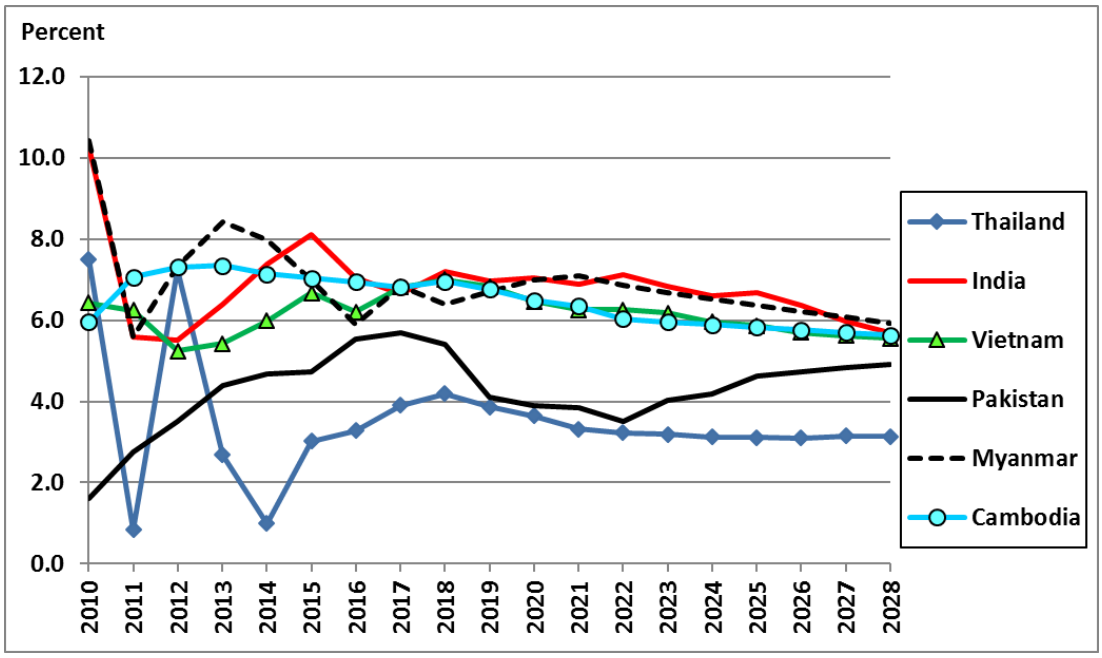

Figure 1. Annual growth of real Gross Domestic Product (GDP) of major rice-exporting countries, percent, 2010–2028.

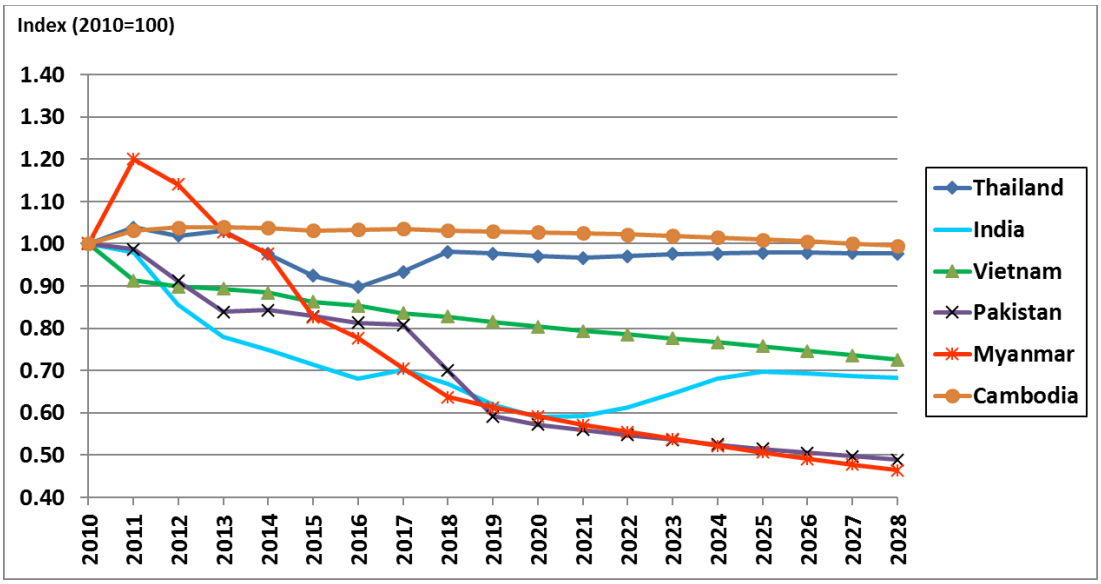

Figure 2. Nominal foreign exchange rate index (2010 = 100) of major rice-exporting countries, US dollar/local currency, 2010–2028.

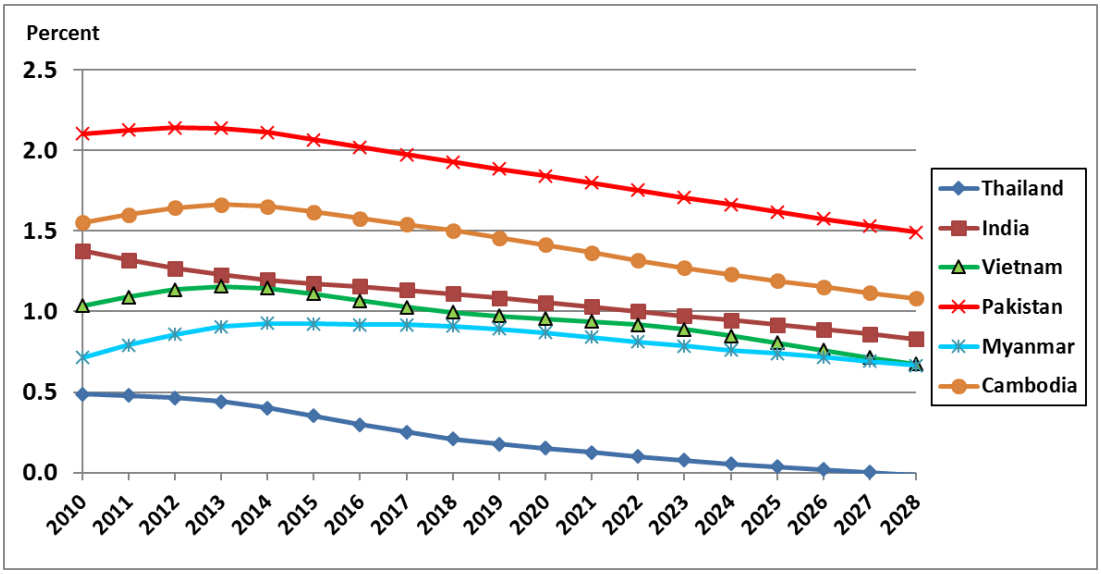

Figure 3. Annual rate of population growth of major rice-exporting countries, percent, 2010–2028.

The population of the same set of major exporters is growing at 1%–2% annually but at a declining rate over the next decade (Figure 3). Thailand's population has the lowest growth at less than 0.5% and is expected to approach zero by 2028.

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 4–6.

Figure 4 presents the annual real GDP growth rates of these major importing countries, which generally range from 4%–6% over the baseline period, except for Saudi Arabia and Iran, which have projected growth rates below 4%.

Figure 5 shows that the currencies of Nigeria and Iran depreciate relative to the USD, indicating that 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 its rice imports relatively less burdensome on its national budget 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 and Iran at a relatively faster decline (Figure 6). The population growth rate in Saudi Arabia is projected to be negative in the short run and increase significantly in the last years of the projected period.

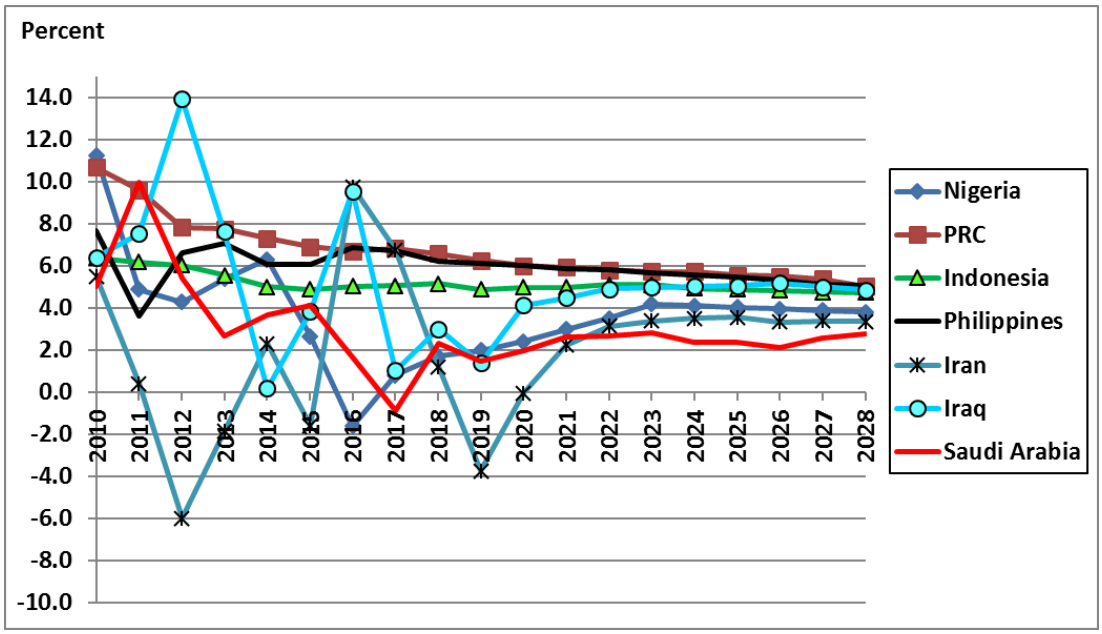

Figure 4. Annual growth of real Gross Domestic Product (GDP) of major rice-importing countries, percent, 2010–2028.

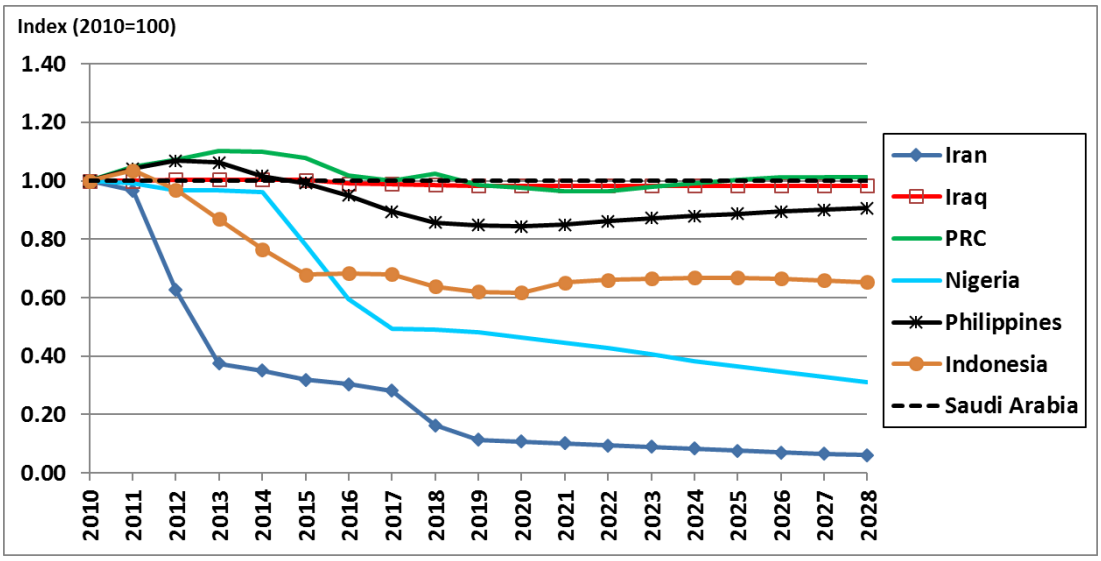

Figure 5. Nominal foreign exchange rate index (2010 = 100) of major rice-importing countries, US dollar/local currency, 2010–2028.

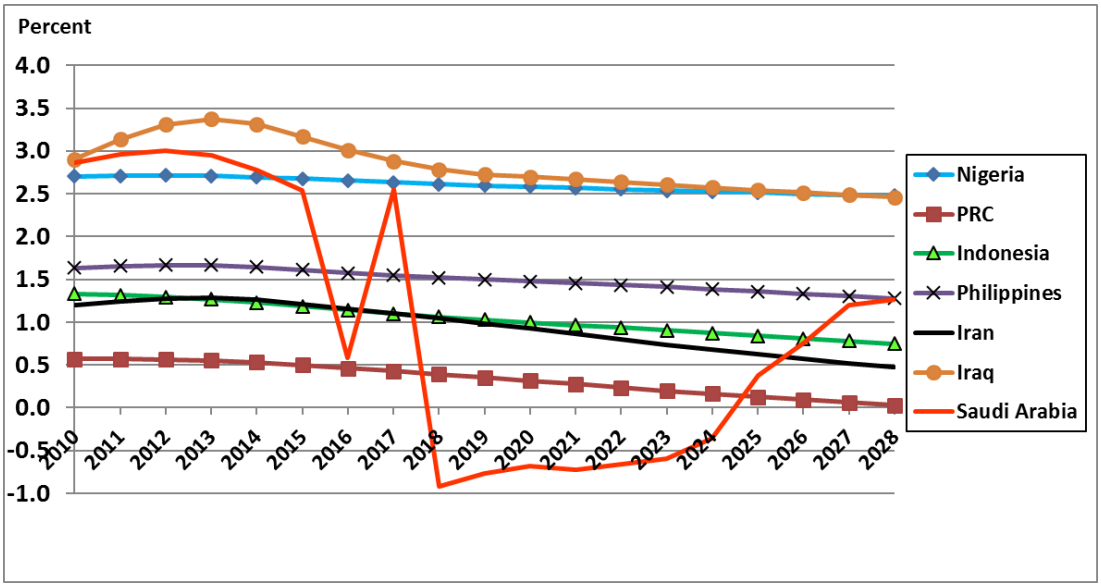

Figure 6. Annual growth of population of major rice-importing countries, percent, 2010–2028.

Key Market Drivers

Recent Developments and Baseline Overview

International rice prices strengthened during 2017 and the first half of 2018 due to a series of events, including large import growth from Bangladesh and Sri Lanka in 2017 due to weather events that led to significant production shortfalls and a small 2017 U.S. rice crop. For example, FAO's all rice price index increased 21% by June 2018 relative to its average 2016 value (FAO, 2019). Thai rice prices have been very competitive relative to Vietnamese rice prices in the last two years, but a significant price gap developed since November 2018, supported in part by the

strengthening of the Thai baht and the decrease in Vietnamese exports to China (USDA-ERS, 2019). According to FAO (2019), in February 2019, the free on board (FOB) price of Vietnamese long grain rice 5% broken was $76 per metric ton (mt) or 18% cheaper than Thai long grain rice with 5% broken.

Over the next decade, growth in global domestic use is projected to exceed domestic supply, increasing total rice trade and steadily increasing nominal long grain international prices. Major rice-deficit countries are expected to continue to import, as domestic production falls short of domestic demand despite subsidies and intentions to achieve self-sufficiency.

The average global rice price is projected to increase steadily at 1.35% annually, as total global net trade grows at 1.56% over the same period. On average, the long grain rice international reference price, represented by the Thai 100% Grade B FOB, increases from $403 per mt (2016–2018 average) to $461 per mt in 2028. However, in real terms (using the base 2015–2017 = 100), the world long grain rice reference price remains relatively stable, ranging from $359 to $379 per mt (Table 5 and Figure 7).

Over the same period, the average international price for medium grain rice is projected to remain high, ranging from $784 per mt (2016–2018 average) to $842 per mt in 2028, as export supplies continue to be limited by water-related production constraints in Australia and Egypt, which are traditional medium grain rice suppliers (Table 5 and Figure 8). Depending on how this situation plays out going forward, it could potentially open up export opportunities for U.S. medium grain rice producers.

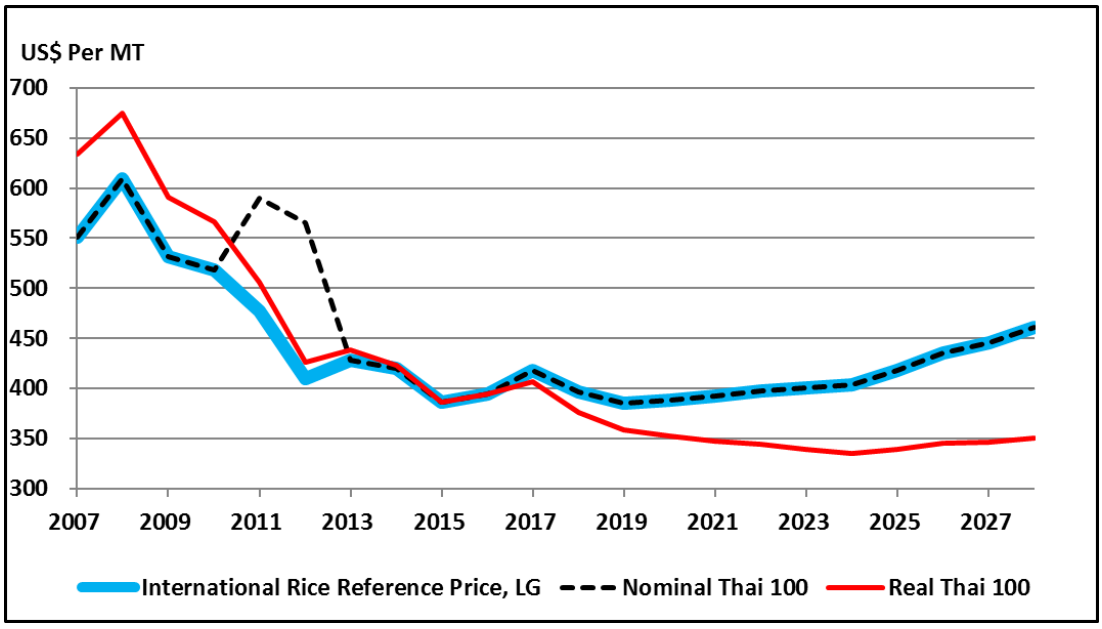

Figure 7. Historical and projected long grain rice world reference price, USD per mt, 2007–2028.

Margins between U.S. and Asian Rice Prices

The Western Hemisphere long grain prices, represented by the U.S. No. 2%–4% FOB Gulf remain substantially higher than prices of Asian long grain rice, with average margins reaching as high as $181 per mt in 2017 and $167 in 2018. The margin is expected to narrow steadily over

the baseline, reaching $109 by 2028 (Table 5 and Figure 8), which is consistent with the expected impact of the increasing inroads of Asian rice, particularly from Vietnam, into the Latin American markets. However, 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).

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 lack of 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, less than 10% of rice production is traded as opposed to 13.9% for coarse grains and 22.5% for wheat (WASDE, 2018).

Rice exports will remain highly concentrated over the next decade, with the projected six dominant players (Thailand, India, Vietnam, Pakistan, Myanmar, and the U.S.) accounting for over 80% of total global trade (Table 85).

Figures 8 and 9 show the historical and projected paths of the world rice supply and use. Over the next decade, India and China will remain the major players in the global rice economy. On average, these two countries combined are projected to account for nearly 36% of the world population from 2018–2028. Over the same period, they will have an average combined global rice share of close to 45% of area harvested, 51% of total production, 49% of consumption, and 82% of stocks.

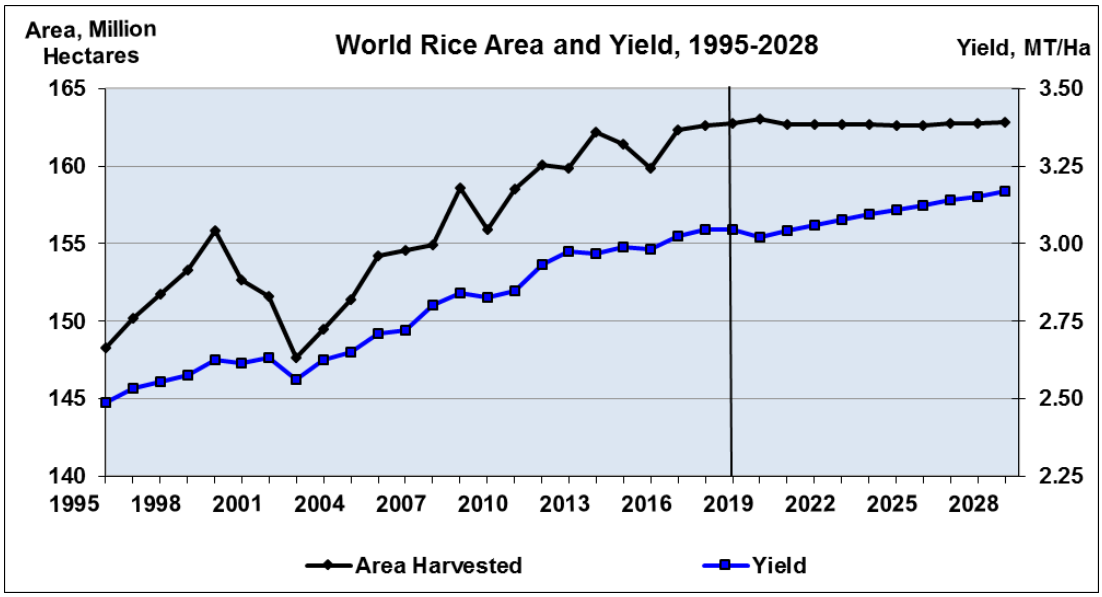

Figure 8. World rice harvested area and yield, historical and projected, 1995–2028.

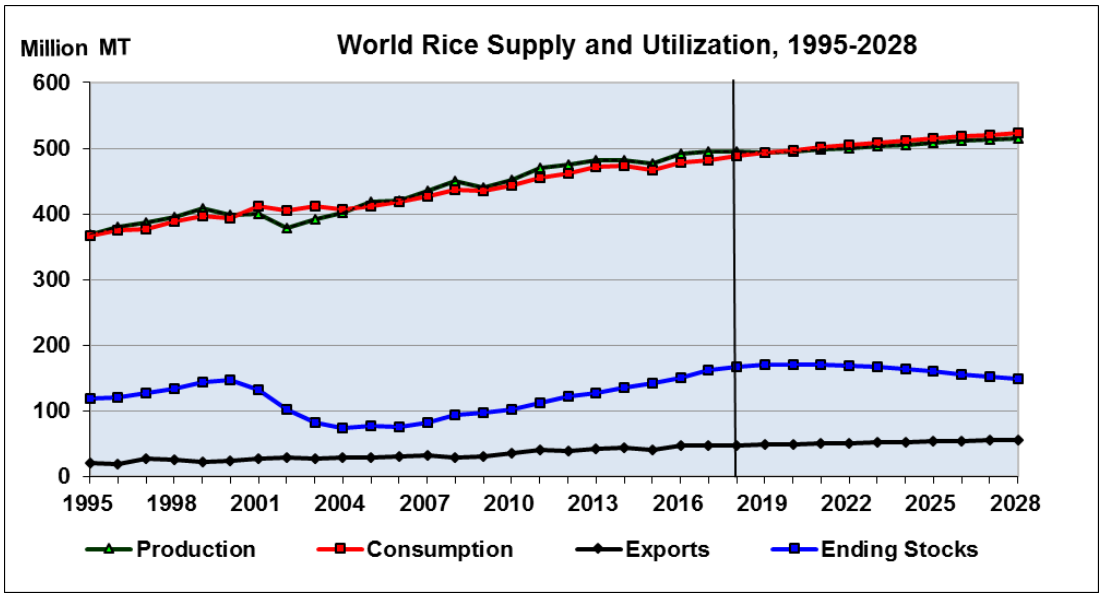

Figure 9. World rice production, consumption, trade and stocks, historical and projected, 1995–2028

Detailed Results of the Deterministic Baseline Analysis

Projections generated from the deterministic analysis by country and by region for the period 2018–2028 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

Over the next decade, net global rice trade expands 1.56% annually over the baseline period, reaching 48.8 million mt (mmt) in 2028 compared to the three-year (2016–2018) average of 41.8 mmt (Table 5). On the exporters' side, the significant investment in production and processing capacities in the Mekong River Delta in Vietnam, Cambodia, and Myanmar bodes well for these countries' increasing role as important global rice suppliers over the next decade. As low-cost producers, these countries are well-positioned geographically to supply the relatively steady Chinese rice market. The productivity gains from hybrids and GRiSP research are also expected to have positive impacts on Asian and African rice economies over the next decade.

Thailand is projected to maintain its strong presence in the international rice market over the same period, given its good infrastructural resources and concerted focus on developing branded high-quality rice. However, India is expected to remain the leading net exporter of rice due 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.

Cambodia and Myanmar are both expected to assume increasing roles as global rice suppliers. Cambodia's exports are projected to grow at 5.7% per year, reaching 1.94 mmt in 2028 (from an average of 1.12 mmt in 2016–2018), as healthy growth in both area and yield cause production to exceed consumption consistently. Myanmar's exports, on the other hand, are projected to expand from 2.98 mmt (2016–2018 average) to 3.72 mmt in 2028, supported by yield-based growth in production.

For the U.S., net rice trade increases by 728 thousand mt (tmt) over the next decade, reaching 3.08 mmt in 2028. For reference purposes, a detailed U.S. rice supply and use in English units, 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. Recently, the current administration has 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, but USCMA has not yet been ratified and there is uncertainty about whether it will be. Most stakeholders agree that losing the NAFTA preferences will be highly detrimental to the U.S. rice industry. Moreover, the recent U.S. withdrawal from the Trans-Pacific Partnership (TPP) puts U.S. rice at a disadvantage relative to other competitors such as Vietnam in key markets overseas.

Main Sources of Growth in Global Rice Trade

Exports

The share in total trade of the six largest rice country exporters increased from 81.4% in 2008/2009 to 83.2% in 2018/2019; however, this figure will decline to 81.2% by the end of the baseline projection period.

Table 1 shows the major global rice suppliers over the next decade with corresponding annual growth rates. While the largest growth by total volume over the same period will come from Thailand (2.2 mmt) followed by China (1.2 mmt), the fastest rate of annual growth is exhibited by China (6.3%) and Cambodia (5.7%).

Table 1. Major global rice exporters, volume in million metric tons and annual percent growth, 2016–2018 average vs. 2028

Country	2016–18 Average	2028 Projected	Total Change	Annual Growth (%)
	Thousand Metric Tons			
Thailand	10,897	13,121	2,224	1.9
China	1,464	2,691	1,227	6.3
Cambodia	1,117	1,940	823	5.7
India	12,157	12,943	786	0.6
U.S.	3,194	3,950	756	2.1
Myanmar	2,983	3,717	734	2.2
Vietnam	6,693	7,330	637	0.9

The trend in total gap between total production and total consumption 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.

The authors introduce 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 use, introduces a dynamic demographic dimension (population) into the equation that contributes to a better understanding of a country's current and future potential on rice.

Table 2 uses the *RPCI* as indicator of the reliability and competitive ability of the same set of seven major rice-exporting countries (listed in Table 1) to expand rice exports into the future as a consequence of high per capita surplus, showing Thailand on top with value of 108.4%, followed by the U.S. (62.5%), with the three countries of Cambodia, Myanmar, Vietnam having comparable values around 30%. It is also interesting to note that in terms of the corresponding changes in average *RPCI* values from the past decade (2008–2018) to the projected period (2018–2028), Myanmar exhibits the biggest percent improvement, followed by Cambodia, Thailand, India, and Vietnam. Average values for the U.S. and PRC decline over the same period.

Table 2. Major rice-exporters' RPCI in percent, 2008–2018 vs. 2018–2028.

Exporters	Per Capita		*Surplus (Deficit)*		*%RPCI*	
	2008–18 Avg.	2018–28 Avg.	2008–18 Avg.	2018–28 Avg.	2008–18 Avg.	2018–28 Avg.
Thailand	151.92	153.64	137.25	166.60	90.3%	108.4%
China	100.69	99.82	3.35	−2.10	3.3%	−2.1%
Cambodia	250.71	256.44	66.83	84.43	26.7%	32.9%
India	73.95	72.80	7.48	8.27	10.1%	11.4%
United States	12.72	13.15	8.16	8.22	64.2%	62.5%
Myanmar	201.42	189.04	32.64	58.13	16.2%	30.7%
Vietnam	229.75	223.57	67.41	67.35	29.3%	30.1%

Imports

The share in total trade of the six largest rice importers declined from 31.6% in 2008/2009 to 27.7% in 2018/2019 but will recover to 30.0% 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 imports show only very modest growth from its Tariff Rate Quota (TRQ) level. As mentioned earlier, in February 2019, the World Trade Organization ruled in favor of a 2016 U.S. complaint that PRC has consistently exceeded its WTO agricultural subsidy limits. Such a ruling can have significant implications for the Chinese and global rice markets, including PRC's rice imports, in the coming years.

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 4.93% per year, driven by the 2.47% population-led growth in consumption that

exceeds the 1.41% 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. Depending on how the actual implementation plays out, the Philippines' new law ending its quantitative restrictions on imports could have a potential boost to global trade specifically favoring Vietnam and Thailand exports (USDA-FAS, 2018a).

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. The largest changes by total import volume come from ECOWAS, which comprises ECOWAS-14 (4.4 mmt) and Nigeria (1.4 mmt), followed by the Middle East (0.9 mmt), with annual growth rates of 5.0%, 4.9%, and 2.1%, respectively.

Similar to the information shown in Table 2 for exporters, Table 4 also uses *RPCI* as an indicator for the major rice importers. Using the same set of seven major rice-importing countries and regions listed in Table 3, Table 4 shows that the Middle East, ECOWAS-14, EU 28, and Nigeria have the biggest per capita deficits over the next decade (2018–2028), at −69.6%, −51.4%, −43.8%, and −37.8%, respectively. The *RPCI* values for the Philippines, Indonesia, and PRC 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, 2016–2018 average vs. 2028.

Country	2016–18 Average	2028 Projected	Total Change	Annual Growth (%)
		Thousand Metric Tons		
ECOWAS-14	7,028	11,484	4,456	5.0
Nigeria	2,233	3,615	1,382	4.9
Middle East	3,855	4,762	907	2.1
Indonesia	1,150	1,959	809	5.5
Philippines	1,567	2,025	458	2.6
China	5,100	5,256	156	0.3
EU 28	1,946	2,080	134	0.7

Table 4. Major rice-importers' RPCI in percent, 2008–2018 vs. 2018–2028.

Importers	Per Capita Use, Kg		*Surplus (Deficit)*		*%RPCI*	
	2008–18 Avg.	2018–28 Avg.	2008–18 Avg.	2018–28 Avg.	2008–18 Avg.	2018–28 Avg.
ECOWAS-14	68.41	88.61	−31.90	−45.56	−46.6%	−51.4%
Nigeria	33.51	35.72	−13.37	−13.49	−39.9%	−37.8%
Middle East	40.73	39.12	−28.37	−27.21	−69.7%	−69.6%
Indonesia	151.16	141.96	−5.64	−6.07	−3.7%	−4.3%
Philippines	132.58	127.12	−18.15	−15.95	−13.7%	−12.5%
China	100.69	99.82	3.35	−2.10	3.3%	−2.1%
EU 28	7.69	8.76	−3.08	−3.84	−40.1%	−43.8%

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 other improved production technologies, which is in line with more focused self-sufficiency programs of the major rice-consuming countries. World rice production expands by nearly 22.0 mmt over the next decade, equivalent to an annual growth of 0.43%, reaching 515.7 mmt in 2028. (Table 6). World rice area remains relatively stagnant over the same period, as the expected substantial decline in China (2.4 million hectares) overshadows the combined area expansion in other countries.

By volume, about 40% of the expected net growth in global rice output over the next decade comes from India, and the rest mainly from seven countries that include Thailand, Bangladesh, Myanmar, Indonesia, the Philippines, Cambodia, and Vietnam. However, rice output in China is projected to decline by a total of 11.7 mmt; and those of Japan and South Korea decline by 1.0 mmt combined, over the same period. Total U.S. rice production, on the other hand, is projected to increase by a total of 933 tmt over the same period, equivalent to an average annual growth of 1.3% (Table 7).

Figure 10 shows that China and India will continue to account for more than half (51% on average) of total world production with the rest accounted for by Indonesia, Bangladesh, Vietnam, Thailand, Myanmar, the Philippines, and rest of the world (ROW).

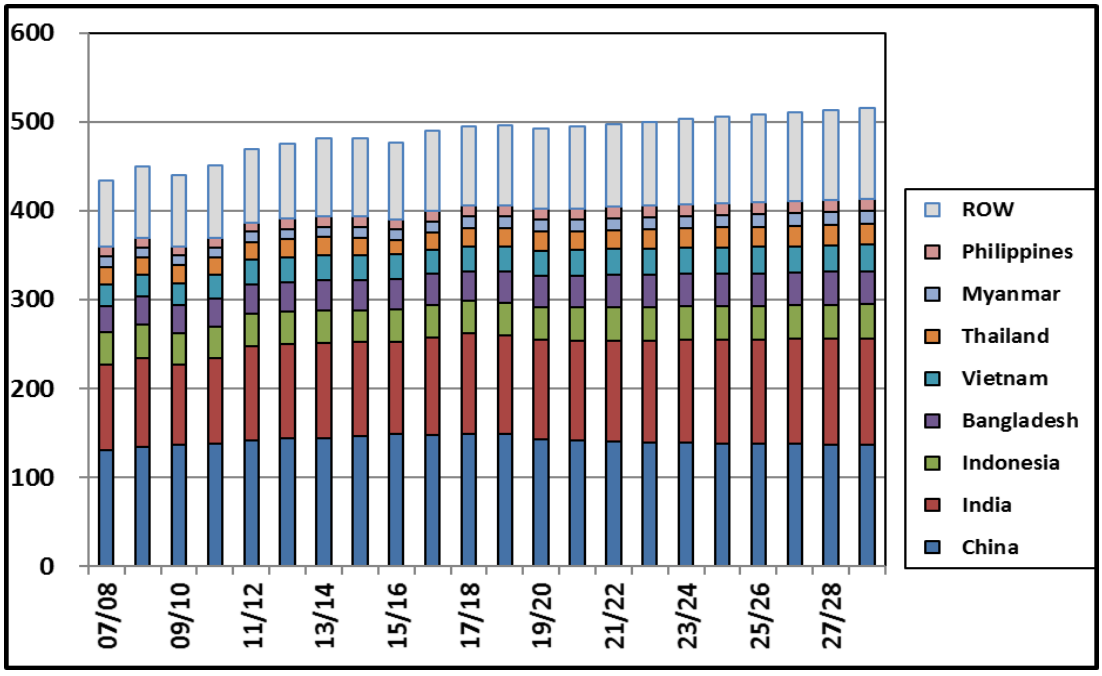

Figure 10. Top world rice-producing countries, historical and projected, million metric tons, 2007–2028.

Rice Domestic Consumption

Over the next decade, world rice consumption will remain driven by income, population, and other demographic variables. In some Asian countries where rice is considered an inferior good, rising incomes continue to dampen rice demand. These countries include Japan, Taiwan, China, and South Korea. Demographic trends also weaken rice demand, as aging populations and

increased health-consciousness cause a shift in preferences away from carbohydrates and towards protein-based diets.

Global rice consumption is projected to increase by nearly 40 mmt reaching 522.6 mmt in 2028, equivalent to an annual growth of 0.8% over the same period (Table 6 and Figure 11). This net growth in global rice demand is due solely to the population growth of nearly 1.0%, as the average per-capita use is projected to decline by 0.26% annually over the next decade.

Nearly half (49%) of the total volume of global consumption is accounted for by China and India combined, while 27% is accounted for by the six countries that include Indonesia, Bangladesh, Vietnam, the Philippines, Thailand, and Myanmar.

About 21% of the growth in global rice consumption comes from India; 21% from the three countries of Bangladesh, Indonesia, and Philippines combined; 23% from ECOWAS; and the rest from ROW. The U.S. total rice consumption increases by 382 tmt over the same period, reaching 4.6 mmt in 2028 or an annual growth of 0.9%, of which 0.7% comes from population growth and the rest from slightly higher per capita use.

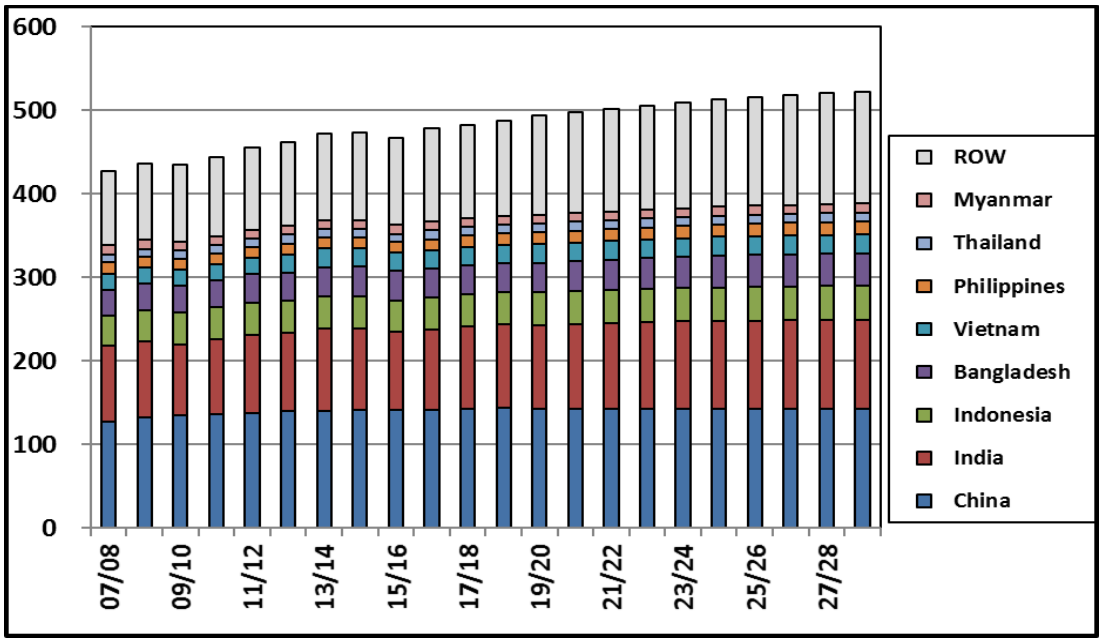

Figure 11. Top world rice-consuming countries, historical and projected, million metric tons, 2007–2028

Rice Global Stocks

Figure 12 shows the top rice-stockholding countries in the world from 2007 through 2028, with China accounting for 72% of global stocks on average. The average combined share of the other five top stockholding countries that include India, Indonesia, Thailand, Philippines, and Vietnam is 17% over the same period.

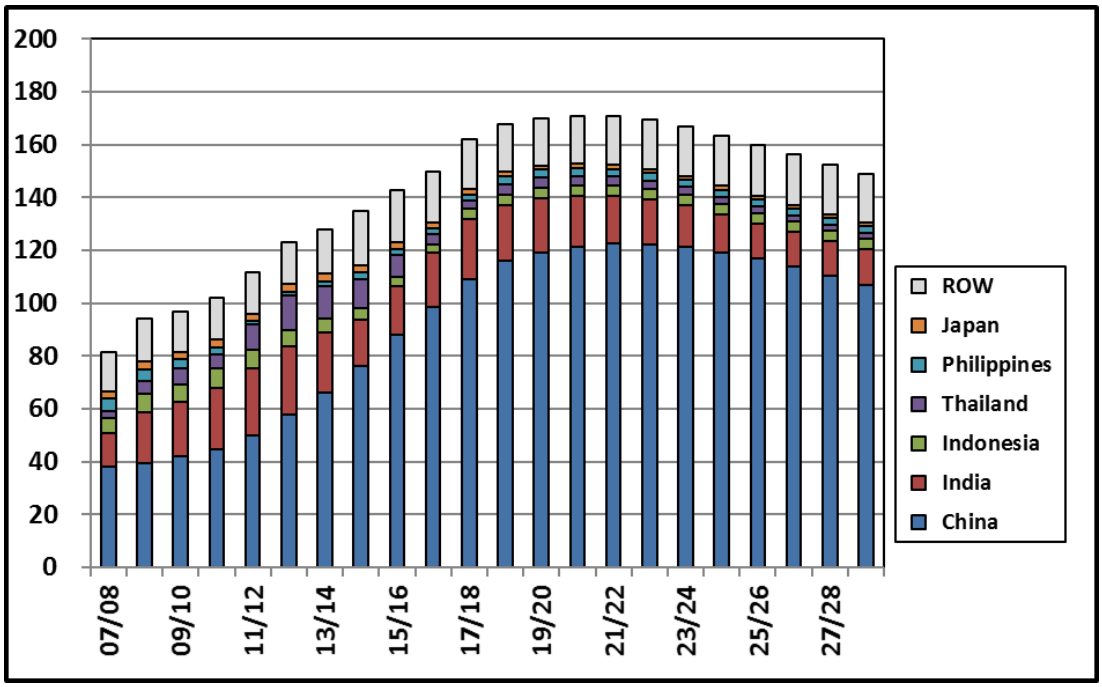

Figure 12. Top-ranking countries in rice ending stocks, historical and projected, million metric tons, 2007–2028.

One of the important uncertainties of this baseline is what China will do with its large quantity of rice stocks over the projection period. Production subsidies have contributed to excessive production. Should China begin to liquidate its surplus stocks, and depending on how the country implements it, there could be significant downward pressure on international long grain prices and production.

Global rice stocks-to-use ratio is projected to decline slightly over the next decade, from about 0.26 in 2018 to 0.22 in 2028—reflecting the relatively faster growth in total global rice consumption relative to the gains in total global rice output.

A continuing shift in world rice stock ownership is expected to move away from exporting countries towards food security-conscious importing countries 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 29.7% in 2008 to 17.3% in 2018 and is projected to further decline to 13.8% in 2028. This situation can be viewed as a sign of market strength.

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. Thus, the sum of the five world regions represents the entire world rice economy.

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 90% of the net growth in global rice imports over the next decade will come from Africa, with the 15-member ECOWAS accounting for 50% of the growth in global imports.

Table 71 shows that Africa's total rice output is projected to grow by 2.3% per year, driven by both growth in area (0.9%) and yields (1.4%). 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 3.4% per year, as population grows by 2.35% and average per capita use gains 0.78% annually. This increased consumption is supported by 1.41% annual growth in real per capita income.[3] Net imports of the region are projected to expand by 9.5 mmt over the next decade, equivalent to a growth rate of 4.9% per year—reaching nearly 25 mmt by 2028 from an average of 15.5 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 2.34% per year, as area and yield expand by 0.96% and 1.37% annually. Total consumption of this group gains 3.54% annually, driven by 2.33% growth in population, 0.86% growth in per capita use, and 1.43% 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) expands its rice output by 1.02% per year, with 0.62% resulting from growth in area harvested and 0.40% from yield increases. Total consumption of this group expands at 1.61% per year, solely supported by a 2.38% population growth as per capita use declines by 1%. Real per capita income grows by 1.38% annually.

ECOWAS

Over the next decade, production of this 15-country region (Tables 89–91) in Africa is projected to grow by 2.49% per year, which is accounted for by a 0.82% gain in harvested area and a 1.65% yield improvement. Consumption expands by 3.62% per year, driven by 2.55% population growth, 0.78% gain in per capita use, and 1.23% income growth per year. Net imports are projected to expand by 5.8 mmt over the next decade, equivalent to a growth rate of 5.1% per year—reaching 14.9 mmt by 2028.

Nigeria is the main player in the ECOWAS region's projected fast-growing rice industry over the baseline period. The country accounts for 24% of the region's volume growth in net imports, as the country's domestic use continues to exceed domestic supply.

Nigeria also accounts for 24% of the region's gain in rice area harvested and 21% of the increase in rice output, which is attributed to the country's 1.41% annual expansion in production, supported by gains of 0.48% in area and 0.91% in yield. Furthermore, the country contributes 22% of the region's volume growth in consumption, as the country's demand expands 2.47% annually, solely due to the 2.53% population growth, as per capita use declines by 0.32% per year.

[3] Real per capita income is computed by dividing total real gross domestic product by population.

Americas

Total rice production in the Western Hemisphere (Table 74) grows at 1.24% per year over the next ten years, which comes from a 0.43% and 0.80% average annual growth in yield and area, respectively. Total consumption increases at 1.23% annually, a combined effect of 0.79% population growth and 0.35% gain in per capita use with 1.15% growth in real per capita income. Net exports from the region are projected to grow annually at 2.8% (equivalent of 336 tmt) over the same period, reaching 1.4 mmt in 2028 from an average of 1.0 mmt from 2016–2018.

The group of individually modeled Western Hemisphere countries (Table 75) is projected to grow total rice output by 1.27% per year, as area gains 0.49% and yields grow by 0.77%. Total rice consumption of this group gains 1.24% annually, as population grows by 0.74% and per capita use by 0.37%. Real per capita income grows at 1.12% per year.

Total rice production of the "Other Western Hemisphere" region modeled as a group (Table 76) increases by 0.66% per year, solely from yield gain, as area declines by 0.26%. Total consumption of this group grows at 1.1% per year, which comes solely from the 1.0% population growth, as per capita use remains flat. Real per capita income grows by 2.30% annually.

Asia

Over the next decade, total rice production in Asia (Table 77) increases by 0.28% per year, solely accounted for by yield, as area declines slightly (−0.09% per year). Total Asian rice consumption grows by 0.48% per year as the population growth of 0.73% is offset by a 0.33% decline in per capita use. Rice is an inferior good in most Asian countries, and the relatively strong projected growth of 3.70% 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 3.7 mmt, equivalent to a growth rate of 1.9% per year—reaching nearly 22 mmt by 2028 from an average of 18.3 mmt from 2016–2018.

Similarly, the group of individually modeled Asian countries (Table 78) is projected to grow total rice production by 0.27% annually, solely coming from an increase in yield, as area remains flat. Total rice consumption of this group grows by 0.48% annually, all contributed by a 0.68% population growth, as per capita use declines by 0.29% and real per capita income expands at 3.81% annually.

The net growth of total rice output of the "Other Asia" region modeled as a group (Table 79) is 0.65% annually, with area declining slightly, and yield gaining 0.68% per year. Total consumption of this group grows at 0.73% per year, solely from a 1.34% population growth, as per capita use declines by 0.75%. Real per capita income grows at 1.96% 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 1.28% per year, which is accounted for by a relatively balanced growth of 0.68% gain in yield and 0.60% increase in area. Total consumption increases at 1.02%, solely from 1.11% gain in per capita use, as population declines slightly (−0.09%). Real per capita income is up 1.67% per year. Net import demand of the region is projected to increase slightly at 0.7% (equivalent to 132 tmt) annually, reaching nearly 1.9 mmt by 2028.

Reflecting the performance of the region, the group of individually modeled European countries (Table 81) is projected to grow total rice output by 1.29% per year, of which 0.68% comes from improvement in yield and 0.60% from increased area. Total consumption of this group gains 0.91% annually, mainly accounted for by 0.92% growth in per capita use, as population declines slightly (−0.02%). Real per capita income of this group grows at 1.51% per year.

Total rice production of the "Other Europe" region modeled as a group (Table 82) grows by 0.72% per year, as yield and harvested area grow by 0.59% and 0.14% per year, respectively. Consumption of this group grows at 3.83% per year, with the high 4.06% gain in per capita use being offset by a 0.22% decline in population. The real per capita income of this group grows strongly at 2.09% per year.

Oceania

Tables 83 through 85 show the results for Oceania, which mainly consists of Australia. Total rice production expands by 2.59% per year, accounted for by 0.78% gain in area harvested and 1.74% gain in yield. Total consumption grows 1.53% annually, which comes from 1.24% growth in population and 0.14% gain in per capita use. Real per capita income grows at 1.25% annually. Given Australia's persistent water-related constraints in rice production, the region is projected to remain a relatively small net importer 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 average, 10^{th} percentile, 90^{th} percentile, and the coefficient of variation) for selected variables are presented. Intuitively, the gap between the two percentiles (10^{th} and 90^{th}) 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.

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, which can then be used as a basis for understanding the remaining charts. Figure 13 shows the long grain rice international reference price. For 2020, while the deterministic mean price generated by the baseline model is $385 per mt (Table 5), the stochastic distribution indicates that 10% of the time the average price will be higher than $524 per mt and 10% of the time lower than $353 per mt. The computed C.V. for 2020 is 14.4%, which declines over the rest of the projection period, reaching 9.0% by 2028. 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 total stocks decline. 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.

Thailand and India will remain the undisputed leaders in the global rice trade over the next ten years. 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. India's sustained production growth in the last decade is expected to continue in the future, keeping a steady excess export supply.

Together with Thailand and India, Vietnam, Pakistan, Myanmar, and the U.S. will be the leading rice exporters in the international rice market, accounting for 79% of global net trade. China, Western Africa (ECOWAS, particularly Nigeria), and the Middle East 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.

Using the *RPCI* indicator, results indicate that over the next decade Thailand 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. On the other hand, the Middle East, ECOWAS-14, and EU 28 will remain 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 a top exporter, given the country's water-scarcity situation and weather concerns;
- Uncertainty on China's high rice stockholding; impact on global prices of possible disposal;
- Persistently high Western Hemisphere prices relative to Asian prices;
- Likelihood of Sub-Saharan Africa and Southeast Asia attaining and sustaining 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 other segments of the rice market;
- Possibility for extreme weather-related damages in major rice-producing countries; and
- How trade policies under the current U.S. administration will play out.

Depending on the developments on these issues going forward, these baseline projections can serve as a benchmark for analyzing the potential impacts of specific 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.

Estimates of the Deterministic Baseline Analysis

Table 5. World Rice Net Trade by Country and Prices, 2016–2028

	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
Net Exporters						**Thousand Metric Tons**							
Argentina	338	332	352	399	354	338	341	346	355	369	378	385	393
Australia	65	95	−150	17	22	14	18	21	45	56	63	75	83
Cambodia	1,130	1,180	980	1,201	1,185	1,229	1,331	1,437	1,488	1,606	1,666	1,812	1,920
Lao PDR	−32	−25	−50	−94	−79	−55	−30	−4	9	27	52	75	107
Egypt	−2	−37	−680	−990	−1,030	−1,030	−1,005	−995	−990	−990	−990	−980	−980
India	11,772	12,200	12,500	12,230	12,229	12,281	12,499	12,652	12,774	12,848	12,863	12,908	12,943
Myanmar (Burma)	3,340	2,790	2,790	2,819	2,975	3,106	3,222	3,314	3,421	3,485	3,544	3,643	3,707
Pakistan	3,506	4,300	4,250	4,112	4,173	4,227	4,281	4,276	4,294	4,299	4,311	4,318	4,372
Thailand	11,365	10,825	9,750	10,402	11,053	11,221	11,539	11,785	12,058	12,341	12,647	12,787	12,871
United States	2,900	1,909	2,270	2,660	2,615	2,593	2,631	2,690	2,756	2,837	2,909	2,996	3,087
Uruguay	950	850	800	825	855	865	870	873	884	905	927	943	953
Vietnam	5,988	6,190	6,600	6,615	6,569	6,599	6,644	6,676	6,763	6,844	6,923	6,935	6,930
Brazil	216	575	0	134	254	322	431	515	559	596	666	736	786
Paraguay	498	652	648	645	666	691	715	744	767	786	817	856	891
Guyana	431	455	480	475	512	535	556	578	596	618	643	668	695
Total Net Exports *	**42,465**	**42,291**	**40,540**	**41,450**	**42,354**	**42,935**	**44,041**	**44,908**	**45,777**	**46,627**	**47,420**	**48,156**	**48,760**
Net Importers													
Bangladesh	71	3,196	596	1,157	1,077	995	912	950	1,100	1,312	1,463	1,563	1,600
China	4,495	4,114	2,300	3,145	3,212	3,134	3,057	2,981	2,808	2,712	2,617	2,588	2,565
Brunei Darussalam	41	50	50	51	52	52	53	54	55	56	57	58	58
Cameroon	575	625	675	732	735	747	771	797	825	848	870	899	925
Canada	362	370	380	399	408	419	426	434	441	445	451	458	463
China - Hong Kong	334	326	345	354	359	365	371	376	381	385	390	395	399
Colombia	144	118	140	193	200	203	204	207	212	202	192	193	200
Cote d'Ivoire	1,230	1,290	1,410	1,456	1,546	1,589	1,656	1,719	1,789	1,861	1,905	1,961	2,059
European Union-28	1,522	1,650	1,650	1,620	1,625	1,633	1,638	1,654	1,669	1,662	1,671	1,679	1,682
Ghana	600	700	680	713	704	718	728	735	740	733	745	738	737

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
Guinea	645	695	720	878	945	972	1,051	1,137	1,195	1,245	1,301	1,410	1,509
Indonesia	348	2,298	798	1,351	1,519	1,603	1,756	1,773	1,891	1,941	2,025	1,987	1,957
Iran	1,600	1,300	1,400	1,577	1,619	1,650	1,693	1,659	1,678	1,689	1,704	1,719	1,731
Iraq	1,070	1,150	1,300	1,320	1,342	1,356	1,372	1,391	1,417	1,444	1,478	1,517	1,558
Japan	659	625	615	612	612	612	612	612	612	612	612	612	612
Kenya	650	675	750	807	852	895	939	986	1,043	1,067	1,087	1,123	1,143
Liberia	310	350	370	410	408	426	446	460	476	484	490	502	517
Malaysia	899	850	950	1,003	982	967	956	950	942	935	934	927	919
Mali	200	230	300	387	430	426	450	506	568	619	668	721	739
Mexico	785	701	790	734	781	785	788	796	806	815	821	830	836
Mozambique	715	725	750	833	872	915	953	1,006	1,050	1,077	1,106	1,134	1,161
Nigeria	2,500	2,000	2,200	2,420	2,561	2,649	2,842	3,010	3,176	3,367	3,467	3,527	3,615
Philippines	1,100	1,300	2,300	1,621	1,538	1,494	1,758	1,853	1,865	1,877	1,952	2,004	2,025
Saudi Arabia	1,195	1,250	1,300	1,329	1,317	1,325	1,335	1,346	1,359	1,379	1,404	1,438	1,473
Senegal	1,090	1,140	1,240	1,329	1,316	1,381	1,428	1,490	1,541	1,590	1,647	1,708	1,756
Sierra Leone	370	350	400	485	444	429	414	407	400	393	392	392	382
Singapore	323	325	330	332	335	337	335	337	339	337	336	336	335
South Africa	865	880	850	911	936	964	971	992	979	1,001	1,015	1,038	1,061
South Korea	407	337	357	409	409	409	409	409	409	409	409	409	409
Taiwan	93	70	70	76	76	76	76	76	76	76	76	76	76
Tanzania	200	220	180	429	540	591	622	646	677	691	677	644	617
Turkey	223	302	225	248	256	251	243	237	237	235	235	230	228
Other Africa	2,565	2,574	2,633	2,804	2,793	2,847	2,915	2,902	2,939	2,979	3,011	3,038	3,062
Other Americas	244	249	181	483	421	418	414	403	387	363	344	331	309
Other Asia	1,644	1,707	1,559	2,127	2,165	2,118	2,061	2,053	1,985	1,930	1,888	1,876	1,826
Other Europe	114	101	120	150	144	159	163	165	166	166	167	169	169
Other Oceania	39	50	50	52	53	54	55	56	57	57	58	59	60
Ecowas 7	1,892	2,086	2,277	2,486	2,702	2,859	3,003	3,102	3,205	3,298	3,399	3,501	3,604
Madagascar	330	675	300	618	627	633	633	647	633	636	641	642	640
Malawi	15	15	15	25	26	29	31	34	36	38	40	43	45
Zambia	10	10	10	10	9	10	11	12	12	12	12	13	12

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
Rwanda	40	40	40	117	127	142	154	166	176	185	192	200	205
Uganda	80	80	85	114	128	143	155	166	179	190	194	195	200
Cuba	524	499	500	487	491	483	484	490	498	501	503	510	514
Costa Rica	155	129	152	150	142	142	143	145	148	150	151	152	153
Dominican Republic	31	8	20	−9	45	54	67	74	79	80	83	76	69
Guatemala	97	88	100	104	106	109	112	116	119	122	125	128	131
Honduras	123	102	144	177	198	208	222	231	239	247	253	260	267
Nicaragua	89	63	80	61	79	82	83	85	87	88	88	89	89
Panama	66	80	85	38	72	70	68	69	69	67	65	63	60
Chile	136	158	158	140	163	166	168	170	172	175	179	184	188
Peru	180	304	250	329	326	315	306	298	292	286	277	264	249
Haiti	470	495	545	551	551	557	563	573	583	592	601	610	619
Venezuela	310	376	550	533	558	566	577	586	599	617	635	656	681
Sri Lanka	550	545	300	431	259	232	221	213	208	192	174	153	136
Residual	7,140	1,645	3,965	153	162	172	170	169	151	154	145	131	126
Total Net Imports	**42,465**	**42,291**	**40,540**	**41,450**	**42,354**	**42,935**	**44,041**	**44,908**	**45,777**	**46,627**	**47,420**	**48,156**	**48,760**
Prices						**USD per Metric Ton**							
International Rice Reference Price (Nominal)	394	418	396	385	389	392	397	400	404	418	435	446	461
Real International Rice Reference Price (2015/17=100)	394	407	376	359	353	348	344	339	335	339	345	347	350
U.S. FOB Gulf Ports**	489	599	563	549	554	556	560	560	562	566	567	568	569
U.S. No. 2 Medium FOB CA	611	868	873	923	885	874	873	868	863	862	858	851	842

* 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, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	162,351	162,599	162,758	163,016	162,716	162,714	162,698	162,675	162,627	162,645	162,742	162,765	162,830
						(Metric Tons per Hectare)							
Yield	3.02	3.04	3.05	3.02	3.04	3.06	3.08	3.09	3.11	3.12	3.14	3.15	3.17
						(Thousand Metric Tons)							
Production	490,937	495,069	495,867	492,638	494,904	497,872	500,611	503,463	505,651	508,103	510,908	513,219	515,746
Beginning Stocks	142,561	149,681	162,023	167,624	169,954	170,741	170,631	169,258	167,022	163,480	159,734	156,172	152,398
Domestic Supply	633,498	644,750	657,890	660,262	664,858	668,613	671,242	672,721	672,673	671,583	670,642	669,391	668,144
Consumption	477,853	482,482	487,774	493,320	497,140	500,989	505,108	508,903	512,466	515,161	517,821	520,387	522,612
Ending Stocks	149,681	162,023	167,624	169,954	170,741	170,631	169,258	167,022	163,480	159,734	156,172	152,398	148,963
Domestic Use	627,534	644,505	655,398	663,274	667,880	671,620	674,367	675,925	675,946	674,895	673,993	672,785	671,575
Total Trade	47,250	47,655	47,722	48,636	49,550	50,080	51,144	51,992	52,994	53,917	54,717	55,387	55,944
						(Percent)							
Stocks-to-Use	23.9	25.1	25.6	25.6	25.6	25.4	25.1	24.7	24.2	23.7	23.2	22.7	22.2

Table 7. U.S. Rice Supply and Use, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	1,253	961	1,180	1,146	1,127	1,140	1,155	1,160	1,160	1,156	1,149	1,144	1,137
						(Metric Tons per Hectare)							
Yield	5.68	5.89	6.03	6.06	6.12	6.18	6.24	6.31	6.38	6.45	6.52	6.59	6.65
						(Thousand Metric Tons)							
Production	7,117	5,659	7,119	6,941	6,892	7,041	7,213	7,323	7,407	7,459	7,494	7,535	7,564
Beginning Stocks	1,475	1,462	933	1,495	1,445	1,356	1,415	1,567	1,720	1,847	1,906	1,902	1,826
Domestic Supply	8,592	7,121	8,052	8,436	8,338	8,397	8,629	8,890	9,128	9,305	9,400	9,437	9,390
Consumption	4,230	4,279	4,287	4,331	4,367	4,388	4,431	4,480	4,526	4,562	4,589	4,615	4,648
Ending Stocks	1,462	933	1,495	1,445	1,356	1,415	1,567	1,720	1,847	1,906	1,902	1,826	1,655
Domestic Use	5,692	5,212	5,782	5,776	5,723	5,804	5,998	6,200	6,372	6,468	6,491	6,441	6,303
Net Trade	2,900	1,909	2,270	2,660	2,615	2,593	2,631	2,690	2,756	2,837	2,909	2,996	3,087
U.S. Rice Farm Prices						(U.S. Dollar per Hundredweight)							
Season Average Farm Price	10.40	12.70	12.10	12.54	12.81	12.76	12.74	12.71	12.70	12.76	12.88	13.05	13.11
Long Grain Farm Price	9.61	11.50	10.70	11.11	11.24	11.30	11.34	11.40	11.46	11.58	11.77	12.01	12.17
Japonica Medium Farm Price	14.10	18.70	18.30	18.74	18.46	18.20	18.16	18.00	17.80	17.69	17.62	17.53	17.38
Non-Japonica Medium Farm Price	10.10	11.70	12.20	12.59	12.48	12.44	12.45	12.45	12.42	12.51	12.63	12.74	12.83

Table 8. Argentina Rice Supply and Use, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	204	198	188	190	192	192	194	194	195	196	197	198	198
						(Metric Tons per Hectare)							
Yield	4.23	4.49	4.22	4.46	4.52	4.61	4.65	4.69	4.73	4.80	4.83	4.86	4.92
						(Thousand Metric Tons)							
Production	863	889	793	849	867	885	901	911	923	938	951	964	975
Beginning Stocks	409	409	446	367	285	258	260	267	273	277	278	278	278
Domestic Supply	1,272	1,298	1,239	1,216	1,151	1,144	1,161	1,178	1,196	1,215	1,229	1,242	1,254
Consumption	525	520	520	532	539	546	553	559	564	568	573	578	583
Ending Stocks	409	446	367	285	258	260	267	273	277	278	278	278	277
Domestic Use	934	966	887	817	797	806	820	832	841	847	851	857	861
Net Trade	338	332	352	399	354	338	341	346	355	369	378	385	393

Table 8. Australia Rice Supply and Use, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	82	60	15	55	59	58	58	57	57	57	57	57	57
						(Metric Tons per Hectare)							
Yield	7.09	7.57	7.33	7.71	7.81	7.92	8.03	8.15	8.26	8.37	8.49	8.60	8.71
						(Thousand Metric Tons)							
Production	581	454	110	421	459	462	465	466	469	476	485	487	493
Beginning Stocks	77	208	177	52	58	94	135	170	194	197	189	173	144
Domestic Supply	658	662	287	473	517	556	600	636	664	673	673	659	637
Consumption	385	390	385	398	401	407	412	420	422	428	438	440	444
Ending Stocks	208	177	52	58	94	135	170	194	197	189	173	144	110
Domestic Use	593	567	437	456	495	542	582	615	619	616	611	584	554
Net Trade	65	95	−150	17	22	14	18	21	45	56	63	75	83

Table 9. Bangladesh Rice Supply and Use, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	11,748	11,272	11,680	11,546	11,547	11,578	11,562	11,537	11,508	11,472	11,451	11,395	11,377
						(Metric Tons per Hectare)							
Yield	2.94	2.90	2.95	3.00	3.04	3.08	3.12	3.15	3.18	3.20	3.22	3.25	3.28
						(Thousand Metric Tons)							
Production	34,578	32,650	34,500	34,600	35,119	35,703	36,054	36,367	36,564	36,683	36,843	37,032	37,266
Beginning Stocks	1,205	854	1,500	1,396	1,464	1,523	1,632	1,639	1,646	1,653	1,660	1,666	1,672
Domestic Supply	35,783	33,504	36,000	35,996	36,583	37,226	37,686	38,006	38,210	38,336	38,503	38,698	38,938
Consumption	35,000	35,200	35,200	35,689	36,138	36,589	36,959	37,310	37,657	37,989	38,299	38,589	38,861
Ending Stocks	854	1,500	1,396	1,464	1,523	1,632	1,639	1,646	1,653	1,660	1,666	1,672	1,677
Domestic Use	35,854	36,700	36,596	37,152	37,660	38,221	38,598	38,956	39,310	39,649	39,965	40,261	40,538
Net Trade	−71	−3,196	−596	−1,157	−1,077	−995	−912	−950	−1,100	−1,312	−1,463	−1,563	−1,600

Table 10. Brazil Rice Supply and Use, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	1,981	1,973	1,850	1,927	1,955	1,967	1,974	1,977	1,976	1,977	1,978	1,981	1,982
						(Metric Tons per Hectare)							
Yield	4.23	4.16	4.19	4.01	4.07	4.13	4.17	4.21	4.25	4.28	4.32	4.35	4.38
						(Thousand Metric Tons)							
Production	8,383	8,208	7,752	7,730	7,952	8,128	8,230	8,317	8,391	8,457	8,546	8,626	8,684
Beginning Stocks	308	475	308	310	311	313	316	318	319	321	325	328	331
Domestic Supply	8,691	8,683	8,060	8,040	8,262	8,442	8,545	8,635	8,710	8,779	8,870	8,954	9,015
Consumption	8,000	7,800	7,750	8,086	8,165	8,232	8,304	8,353	8,400	8,441	8,461	8,475	8,487
Ending Stocks	475	308	310	311	313	316	318	319	321	325	328	331	335
Domestic Use	8,475	8,108	8,060	8,397	8,479	8,547	8,621	8,672	8,722	8,766	8,789	8,806	8,822
Net Trade	216	575	0	134	254	322	431	515	559	596	666	736	786

Table 11. Brunei Darussalam Rice Supply and Use, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	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
						(Thousand Metric Tons)							
Production	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
Domestic Supply	1	1	1	1	1	1	1	1	1	1	1	1	1
Consumption	42	51	51	52	53	53	54	55	56	57	58	59	59
Ending Stocks	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	42	51	51	52	53	53	54	55	56	57	58	59	59
Net Trade	−41	−50	−50	−51	−52	−52	−53	−54	−55	−56	−57	−58	−58

Table 12. Cambodia Rice Supply and Use, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	3,095	3,180	3,245	3,201	3,127	3,107	3,100	3,106	3,115	3,128	3,151	3,172	3,191
						(Metric Tons per Hectare)							
Yield	1.70	1.70	1.69	1.70	1.75	1.79	1.84	1.89	1.92	1.97	2.00	2.05	2.09
						(Thousand Metric Tons)							
Production	5,256	5,399	5,500	5,450	5,470	5,552	5,716	5,878	5,986	6,163	6,301	6,499	6,657
Beginning Stocks	247	373	442	762	764	765	767	769	771	773	776	779	781
Domestic Supply	5,503	5,772	5,942	6,212	6,234	6,318	6,483	6,647	6,757	6,936	7,077	7,277	7,438
Consumption	4,000	4,150	4,200	4,247	4,283	4,322	4,383	4,439	4,496	4,555	4,632	4,685	4,735
Ending Stocks	373	442	762	764	765	767	769	771	773	776	779	781	783
Domestic Use	4,373	4,592	4,962	5,011	5,048	5,089	5,152	5,210	5,269	5,331	5,411	5,466	5,518
Net Trade	1,130	1,180	980	1,201	1,185	1,229	1,331	1,437	1,488	1,606	1,666	1,812	1,920

Table 13. Cameroon Rice Supply and Use, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	276	275	275	268	262	257	256	256	255	255	255	255	254
						(Metric Tons per Hectare)							
Yield	0.82	0.80	0.80	0.85	0.94	1.04	1.10	1.11	1.14	1.17	1.19	1.21	1.21
						(Thousand Metric Tons)							
Production	226	221	221	227	245	267	282	285	291	297	304	308	308
Beginning Stocks	0	0	0	0	8	9	9	10	11	11	12	13	13
Domestic Supply	226	221	221	227	253	276	291	296	302	308	316	320	321
Consumption	801	846	896	950	980	1,014	1,052	1,082	1,115	1,144	1,173	1,206	1,233
Ending Stocks	0	0	0	8	9	9	10	11	11	12	13	13	14
Domestic Use	801	846	896	959	989	1,023	1,062	1,092	1,127	1,156	1,185	1,219	1,246
Net Trade	−575	−625	−675	−732	−735	−747	−771	−797	−825	−848	−870	−899	−925

Table 14. Canada Rice Supply and Use, 2016–2028

	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
						(Thousand Metric Tons)							
Consumption	354	362	372	399	408	419	426	434	441	445	451	458	463
Ending Stocks	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	354	362	372	399	408	419	426	434	441	445	451	458	463
Net Trade	−362	−370	−380	−399	−408	−419	−426	−434	−441	−445	−451	−458	−463

Table 15. China Rice Supply and Use, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	30,746	30,747	30,189	29,616	29,338	29,122	28,893	28,726	28,506	28,402	28,308	28,203	28,088
						(Metric Tons per Hectare)							
Yield	4.81	4.84	4.92	4.81	4.82	4.83	4.83	4.84	4.85	4.85	4.86	4.86	4.86
						(Thousand Metric Tons)							
Production	147,766	148,873	148,490	142,561	141,482	140,645	139,657	139,158	138,192	137,792	137,463	137,085	136,633
Beginning Stocks	88,000	98,500	109,000	116,000	119,275	121,355	122,410	122,231	121,364	119,297	116,739	113,839	110,521
Domestic Supply	235,766	247,373	257,490	258,561	260,757	261,999	262,068	261,389	259,555	257,089	254,202	250,924	247,155
Consumption	141,761	142,487	143,790	142,431	142,615	142,723	142,893	143,007	143,067	143,062	142,980	142,991	142,890
Ending Stocks	98,500	109,000	116,000	119,275	121,355	122,410	122,231	121,364	119,297	116,739	113,839	110,521	106,830
Domestic Use	240,261	251,487	259,790	261,706	263,969	265,133	265,124	264,370	262,364	259,801	256,818	253,512	249,720
Net Trade	−4,495	−4,114	−2,300	−3,145	−3,212	−3,134	−3,057	−2,981	−2,808	−2,712	−2,617	−2,588	−2,565

Table 16. Colombia Rice Supply and Use, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	525	570	510	511	515	519	520	524	526	530	533	537	540
						(Metric Tons per Hectare)							
Yield	3.27	3.12	3.22	3.29	3.29	3.30	3.32	3.33	3.34	3.36	3.37	3.38	3.39
						(Thousand Metric Tons)							
Production	1,718	1,780	1,640	1,679	1,696	1,714	1,727	1,746	1,759	1,779	1,794	1,816	1,832
Beginning Stocks	142	254	352	377	356	329	300	270	238	201	174	156	156
Domestic Supply	1,860	2,034	1,992	2,056	2,052	2,043	2,027	2,016	1,997	1,980	1,968	1,972	1,988
Consumption	1,750	1,800	1,755	1,892	1,923	1,946	1,960	1,986	2,008	2,008	2,004	2,009	2,005
Ending Stocks	254	352	377	356	329	300	270	238	201	174	156	156	182
Domestic Use	2,004	2,152	2,132	2,249	2,253	2,246	2,231	2,223	2,209	2,181	2,160	2,164	2,187
Net Trade	−144	−118	−140	−193	−200	−203	−204	−207	−212	−202	−192	−193	−200

Table 17. Cote d'Ivoire Rice Supply and Use, 2016–2028

	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
						(Thousand Hectares)							
Area Harvested	900	862	875	891	875	889	916	930	939	971	995	1,013	1,027
						(Metric Tons per Hectare)							
Yield	1.48	1.60	1.66	1.68	1.71	1.73	1.76	1.78	1.81	1.83	1.86	1.88	1.91
						(Thousand Metric Tons)							
Production	1,335	1,377	1,450	1,498	1,493	1,541	1,609	1,658	1,697	1,780	1,847	1,906	1,959
Beginning Stocks	542	507	474	484	497	509	522	543	561	578	602	617	630
Domestic Supply	1,877	1,884	1,924	1,982	1,990	2,050	2,132	2,201	2,258	2,358	2,449	2,523	2,589
Consumption	2,600	2,700	2,850	2,941	3,027	3,117	3,245	3,359	3,469	3,616	3,738	3,854	4,004
Ending Stocks	507	474	484	497	509	522	543	561	578	602	617	630	645
Domestic Use	3,107	3,174	3,334	3,438	3,537	3,639	3,788	3,919	4,047	4,218	4,354	4,484	4,648
Net Trade	−1,230	−1,290	−1,410	−1,456	−1,546	−1,589	−1,656	−1,719	−1,789	−1,861	−1,905	−1,961	−2,059

Table 18. Egypt Rice Supply and Use, 2016–2028

	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	27/28
							(Thousand Hectares)						
Area Harvested	850	762	462	494	505	515	520	523	526	528	530	533	536
							(Metric Tons per Hectare)						
Yield	5.65	5.64	6.06	6.24	6.44	6.53	6.62	6.71	6.80	6.89	6.98	7.07	7.16
							(Thousand Metric Tons)						
Production	4,800	4,300	2,800	3,083	3,254	3,361	3,439	3,509	3,576	3,635	3,697	3,769	3,840
Beginning Stocks	924	1,426	1,563	643	516	531	565	565	549	528	499	470	443
Domestic Supply	5,724	5,726	4,363	3,726	3,770	3,893	4,004	4,074	4,124	4,163	4,197	4,238	4,283
Consumption	4,300	4,200	4,100	4,200	4,269	4,358	4,444	4,520	4,586	4,654	4,717	4,775	4,824
Ending Stocks	1,426	1,563	643	516	531	565	565	549	528	499	470	443	439
Domestic Use	5,726	5,763	4,743	4,716	4,800	4,923	5,009	5,069	5,114	5,153	5,187	5,218	5,263
Net Trade	−2	−37	−680	−990	−1,030	−1,030	−1,005	−995	−990	−990	−990	−980	−980

Table 19. European Union-28 Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	440	431	417	424	433	441	445	447	449	450	452	454	456
							(Metric Tons per Hectare)						
Yield	4.74	4.64	4.78	4.91	4.90	4.88	4.92	4.96	4.97	4.99	5.02	5.03	5.05
							(Thousand Metric Tons)						
Production	2,087	2,000	1,994	2,082	2,119	2,151	2,188	2,214	2,231	2,248	2,267	2,286	2,303
Beginning Stocks	1,183	1,192	1,142	1,036	961	901	858	826	798	761	705	653	603
Domestic Supply	3,270	3,192	3,136	3,118	3,081	3,052	3,046	3,040	3,028	3,009	2,972	2,939	2,906
Consumption	3,600	3,700	3,750	3,777	3,804	3,828	3,859	3,897	3,937	3,966	3,991	4,015	4,034
Ending Stocks	1,192	1,142	1,036	961	901	858	826	798	761	705	653	603	555
Domestic Use	4,792	4,842	4,786	4,738	4,705	4,686	4,685	4,694	4,698	4,671	4,643	4,618	4,588
Net Trade	−1,522	−1,650	−1,650	−1,620	−1,625	−1,633	−1,638	−1,654	−1,669	−1,662	−1,671	−1,679	−1,682

Table 20. Ghana Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	244	245	255	263	269	276	284	292	301	310	320	332	344
							(Metric Tons per Hectare)						
Yield	1.69	1.80	1.76	1.79	1.82	1.85	1.88	1.91	1.94	1.99	1.99	2.02	2.03
							(Thousand Metric Tons)						
Production	413	440	450	471	490	511	535	560	587	619	641	674	703
Beginning Stocks	76	39	79	84	111	118	124	131	138	144	149	156	161
Domestic Supply	489	479	529	555	601	629	659	691	725	763	791	830	864
Consumption	1,050	1,100	1,125	1,157	1,188	1,222	1,256	1,289	1,320	1,347	1,379	1,407	1,435
Ending Stocks	39	79	84	111	118	124	131	138	144	149	156	161	167
Domestic Use	1,089	1,179	1,209	1,269	1,305	1,346	1,387	1,427	1,465	1,497	1,535	1,568	1,602
Net Trade	−600	−700	−680	−713	−704	−718	−728	−735	−740	−733	−745	−738	−737

Table 21. Guinea Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	1,088	1,100	1,100	1,105	1,106	1,109	1,114	1,119	1,124	1,129	1,135	1,142	1,149
							(Metric Tons per Hectare)						
Yield	1.32	1.32	1.36	1.39	1.42	1.46	1.50	1.53	1.54	1.55	1.56	1.56	1.57
							(Thousand Metric Tons)						
Production	1,435	1,451	1,500	1,537	1,560	1,613	1,661	1,694	1,711	1,728	1,746	1,764	1,783
Beginning Stocks	102	182	178	148	153	156	159	164	169	172	174	177	182
Domestic Supply	1,537	1,633	1,678	1,685	1,712	1,769	1,820	1,858	1,880	1,900	1,920	1,941	1,965
Consumption	2,000	2,150	2,250	2,410	2,501	2,582	2,707	2,827	2,903	2,970	3,044	3,170	3,288
Ending Stocks	182	178	148	153	156	159	164	169	172	174	177	182	186
Domestic Use	2,182	2,328	2,398	2,562	2,657	2,741	2,871	2,995	3,075	3,145	3,221	3,352	3,474
Net Trade	−645	−695	−720	−878	−945	−972	−1,051	−1,137	−1,195	−1,245	−1,301	−1,410	−1,509

Table 22. China-Hong Kong Rice Supply and Use, 2016–2028

	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
							(Thousand Metric Tons)						
Consumption	334	326	345	354	359	365	371	376	381	385	390	395	399
Ending Stocks	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	334	326	345	354	359	365	371	376	381	385	390	395	399
Net Trade	−334	−326	−345	−354	−359	−365	−371	−376	−381	−385	−390	−395	−399

Table 23. India Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	43,993	43,789	44,000	44,036	44,035	44,061	44,084	44,084	44,061	44,055	44,063	44,068	44,087
							(Metric Tons per Hectare)						
Yield	2.49	2.58	2.52	2.54	2.56	2.58	2.60	2.62	2.64	2.66	2.68	2.70	2.72
							(Thousand Metric Tons)						
Production	109,698	112,910	111,000	111,947	112,676	113,619	114,521	115,352	116,230	117,143	118,205	118,895	119,974
Beginning Stocks	18,400	20,550	22,600	21,100	20,333	19,343	18,298	17,129	15,780	14,416	13,459	13,020	12,903
Domestic Supply	128,098	133,460	133,600	133,047	133,009	132,962	132,819	132,482	132,010	131,559	131,665	131,915	132,878
Consumption	95,776	98,660	100,000	100,485	101,437	102,383	103,191	104,049	104,821	105,252	105,782	106,104	106,402
Ending Stocks	20,550	22,600	21,100	20,333	19,343	18,298	17,129	15,780	14,416	13,459	13,020	12,903	13,533
Domestic Use	116,326	121,260	121,100	120,817	120,780	120,681	120,320	119,830	119,237	118,711	118,802	119,008	119,935
Net Trade	11,772	12,200	12,500	12,230	12,229	12,281	12,499	12,652	12,774	12,848	12,863	12,908	12,943

Table 24. Indonesia Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	12,240	12,250	12,240	12,285	12,186	12,190	12,191	12,169	12,174	12,167	12,166	12,173	12,174
							(Metric Tons per Hectare)						
Yield	3.01	3.02	3.05	3.06	3.08	3.10	3.11	3.12	3.12	3.13	3.13	3.12	3.12
							(Thousand Metric Tons)						
Production	36,858	37,000	37,300	37,364	37,511	37,722	37,923	38,128	38,233	38,329	38,395	38,440	38,406
Beginning Stocks	3,509	2,915	4,113	4,111	4,053	4,006	3,978	3,964	3,957	3,955	3,954	3,953	3,953
Domestic Supply	40,367	39,915	41,413	41,475	41,565	41,728	41,901	42,092	42,191	42,284	42,349	42,394	42,359
Consumption	37,800	38,100	38,100	38,773	39,077	39,353	39,693	39,908	40,127	40,271	40,421	40,428	40,363
Ending Stocks	2,915	4,113	4,111	4,053	4,006	3,978	3,964	3,957	3,955	3,954	3,953	3,953	3,953
Domestic Use	40,715	42,213	42,211	42,827	43,083	43,331	43,657	43,865	44,082	44,225	44,374	44,381	44,317
Net Trade	−348	−2,298	−798	−1,351	−1,519	−1,603	−1,756	−1,773	−1,891	−1,941	−2,025	−1,987	−1,957

Table 25. Iran Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	625	625	625	627	623	619	616	615	615	617	619	620	623
							(Metric Tons per Hectare)						
Yield	2.66	2.75	2.72	2.79	2.82	2.86	2.89	2.93	2.95	2.98	3.00	3.03	3.05
							(Thousand Metric Tons)						
Production	1,663	1,716	1,700	1,749	1,755	1,772	1,780	1,798	1,816	1,836	1,857	1,877	1,900
Beginning Stocks	388	551	417	367	380	394	408	423	429	437	446	456	466
Domestic Supply	2,051	2,267	2,117	2,116	2,135	2,167	2,188	2,221	2,245	2,273	2,304	2,333	2,366
Consumption	3,100	3,150	3,150	3,313	3,361	3,409	3,458	3,451	3,486	3,516	3,552	3,586	3,620
Ending Stocks	551	417	367	380	394	408	423	429	437	446	456	466	476
Domestic Use	3,651	3,567	3,517	3,694	3,755	3,817	3,881	3,880	3,924	3,962	4,008	4,052	4,096
Net Trade	−1,600	−1,300	−1,400	−1,577	−1,619	−1,650	−1,693	−1,659	−1,678	−1,689	−1,704	−1,719	−1,731

Table 26. Iraq Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	55	85	20	36	44	53	59	64	67	69	69	69	67
							(Metric Tons per Hectare)						
Yield	2.20	2.47	2.15	2.18	2.19	2.20	2.21	2.23	2.24	2.25	2.26	2.28	2.29
							(Thousand Metric Tons)						
Production	121	210	43	78	96	116	131	143	151	156	157	157	153
Beginning Stocks	57	73	133	151	158	165	168	170	170	169	167	166	165
Domestic Supply	178	283	176	229	254	281	300	313	320	324	325	322	318
Consumption	1,175	1,300	1,325	1,391	1,431	1,468	1,502	1,534	1,568	1,601	1,637	1,674	1,712
Ending Stocks	73	133	151	158	165	168	170	170	169	167	166	165	164
Domestic Use	1,248	1,433	1,476	1,549	1,596	1,637	1,672	1,704	1,737	1,768	1,803	1,839	1,876
Net Trade	−1,070	−1,150	−1,300	−1,320	−1,342	−1,356	−1,372	−1,391	−1,417	−1,444	−1,478	−1,517	−1,558

Table 27. Japan Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	1,570	1,557	1,560	1,530	1,524	1,511	1,495	1,488	1,477	1,464	1,450	1,431	1,420
							(Metric Tons per Hectare)						
Yield	5.05	5.00	4.94	4.96	4.97	4.98	4.99	4.99	5.00	5.03	5.03	5.04	5.05
							(Thousand Metric Tons)						
Production	7,929	7,787	7,700	7,588	7,575	7,517	7,456	7,425	7,392	7,359	7,296	7,215	7,173
Beginning Stocks	2,552	2,410	2,167	1,882	1,665	1,582	1,532	1,486	1,449	1,441	1,454	1,457	1,436
Domestic Supply	10,481	10,197	9,867	9,470	9,240	9,099	8,988	8,911	8,840	8,799	8,750	8,671	8,609
Consumption	8,730	8,655	8,600	8,417	8,270	8,179	8,114	8,074	8,012	7,957	7,906	7,847	7,810
Ending Stocks	2,410	2,167	1,882	1,665	1,582	1,532	1,486	1,449	1,441	1,454	1,457	1,436	1,411
Domestic Use	11,140	10,822	10,482	10,082	9,852	9,711	9,600	9,523	9,452	9,411	9,362	9,283	9,221
Net Trade	−659	−625	−615	−612	−612	−612	−612	−612	−612	−612	−612	−612	−612

Table 28. Kenya Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	29	30	30	30	30	31	31	31	31	31	31	31	31
							(Metric Tons per Hectare)						
Yield	2.69	2.63	2.63	2.67	2.70	2.73	2.76	2.79	2.82	2.85	2.88	2.92	2.95
							(Thousand Metric Tons)						
Production	78	79	79	80	82	84	85	86	87	88	89	91	92
Beginning Stocks	87	145	149	158	167	173	178	184	189	197	199	199	202
Domestic Supply	165	224	228	238	249	256	263	270	276	285	289	290	294
Consumption	670	750	820	878	927	973	1,018	1,066	1,122	1,153	1,177	1,211	1,235
Ending Stocks	145	149	158	167	173	178	184	189	197	199	199	202	202
Domestic Use	815	899	978	1,045	1,100	1,152	1,202	1,255	1,319	1,353	1,376	1,413	1,436
Net Trade	−650	−675	−750	−807	−852	−895	−939	−986	−1,043	−1,067	−1,087	−1,123	−1,143

Table 29. Lao PDR Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	973	963	985	1,000	1,014	1,030	1,047	1,063	1,077	1,091	1,105	1,121	1,137
							(Metric Tons per Hectare)						
Yield	2.00	2.08	2.08	2.08	2.10	2.12	2.14	2.16	2.18	2.20	2.22	2.24	2.26
							(Thousand Metric Tons)						
Production	1,950	2,000	2,050	2,084	2,130	2,182	2,241	2,297	2,351	2,403	2,459	2,517	2,576
Beginning Stocks	448	350	275	225	226	227	228	230	231	232	234	235	236
Domestic Supply	2,398	2,350	2,325	2,309	2,356	2,409	2,469	2,527	2,581	2,636	2,692	2,752	2,812
Consumption	2,080	2,100	2,150	2,177	2,207	2,236	2,270	2,300	2,341	2,375	2,405	2,440	2,467
Ending Stocks	350	275	225	226	227	228	230	231	232	234	235	236	237
Domestic Use	2,430	2,375	2,375	2,403	2,434	2,464	2,499	2,531	2,573	2,609	2,640	2,677	2,705
Net Trade	−32	−25	−50	−94	−79	−55	−30	−4	9	27	52	75	107

Table 30. Liberia Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	234	220	220	221	226	232	238	244	249	254	259	264	268
							(Metric Tons per Hectare)						
Yield	0.73	0.80	0.86	0.78	0.80	0.82	0.84	0.85	0.88	0.89	0.90	0.91	0.92
							(Thousand Metric Tons)						
Production	170	176	189	172	182	191	199	208	219	226	233	240	246
Beginning Stocks	12	37	53	72	92	93	94	95	96	97	97	98	98
Domestic Supply	182	213	242	244	273	283	293	303	315	323	330	337	345
Consumption	455	510	540	562	589	615	644	667	695	709	723	741	762
Ending Stocks	37	53	72	92	93	94	95	96	97	97	98	98	99
Domestic Use	492	563	612	653	681	709	739	763	791	807	820	839	862
Net Trade	−310	−350	−370	−410	−408	−426	−446	−460	−476	−484	−490	−502	−517

Table 31. Malaysia Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	695	695	695	697	701	704	708	711	713	715	717	719	721
							(Metric Tons per Hectare)						
Yield	2.62	2.62	2.62	2.69	2.73	2.75	2.79	2.82	2.85	2.89	2.91	2.94	2.96
							(Thousand Metric Tons)						
Production	1,820	1,820	1,820	1,876	1,911	1,940	1,974	2,007	2,037	2,065	2,085	2,111	2,137
Beginning Stocks	460	429	349	369	403	415	420	423	427	431	435	438	441
Domestic Supply	2,280	2,249	2,169	2,245	2,313	2,356	2,394	2,431	2,464	2,496	2,520	2,549	2,578
Consumption	2,750	2,750	2,750	2,845	2,880	2,902	2,927	2,953	2,975	2,996	3,016	3,035	3,053
Ending Stocks	429	349	369	403	415	420	423	427	431	435	438	441	444
Domestic Use	3,179	3,099	3,119	3,248	3,295	3,322	3,351	3,380	3,406	3,431	3,454	3,476	3,497
Net Trade	−899	−850	−950	−1,003	−982	−967	−956	−950	−942	−935	−934	−927	−919

Table 32. Mali Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	835	900	900	902	907	924	943	957	962	967	974	982	988
							(Metric Tons per Hectare)						
Yield	2.17	2.11	2.09	2.14	2.18	2.23	2.27	2.31	2.35	2.39	2.43	2.46	2.50
							(Thousand Metric Tons)						
Production	1,808	1,899	1,885	1,926	1,975	2,062	2,137	2,210	2,262	2,311	2,364	2,417	2,467
Beginning Stocks	127	185	214	199	201	203	204	206	209	211	213	215	217
Domestic Supply	1,935	2,084	2,099	2,125	2,176	2,265	2,341	2,416	2,471	2,522	2,577	2,632	2,684
Consumption	1,950	2,100	2,200	2,311	2,404	2,486	2,585	2,713	2,828	2,928	3,030	3,136	3,205
Ending Stocks	185	214	199	201	203	204	206	209	211	213	215	217	218
Domestic Use	2,135	2,314	2,399	2,512	2,607	2,690	2,791	2,922	3,039	3,141	3,245	3,353	3,423
Net Trade	−200	−230	−300	−387	−430	−426	−450	−506	−568	−619	−668	−721	−739

Table 33. Mexico Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	40	41	40	42	42	42	42	42	42	42	42	41	41
							(Metric Tons per Hectare)						
Yield	4.38	4.46	4.45	4.18	4.19	4.19	4.21	4.23	4.25	4.27	4.29	4.31	4.33
							(Thousand Metric Tons)						
Production	175	183	178	174	175	176	176	177	178	178	179	179	179
Beginning Stocks	127	172	196	224	182	180	177	179	182	187	190	193	197
Domestic Supply	302	355	374	398	357	355	354	356	360	365	369	372	376
Consumption	915	860	940	950	958	963	962	971	979	990	997	1,005	1,012
Ending Stocks	172	196	224	182	180	177	179	182	187	190	193	197	200
Domestic Use	1,087	1,056	1,164	1,132	1,138	1,140	1,141	1,153	1,166	1,181	1,190	1,202	1,212
Net Trade	−785	−701	−790	−734	−781	−785	−788	−796	−806	−815	−821	−830	−836

Table 34. Mozambique Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	350	350	350	353	353	353	354	356	358	360	363	366	369
							(Metric Tons per Hectare)						
Yield	0.61	0.74	0.73	0.74	0.75	0.76	0.77	0.79	0.80	0.81	0.82	0.84	0.85
							(Thousand Metric Tons)						
Production	213	260	254	260	264	269	274	280	286	292	299	306	313
Beginning Stocks	0	0	0	0	5	6	7	8	9	10	10	11	12
Domestic Supply	213	260	254	260	269	275	281	287	294	302	309	317	325
Consumption	928	985	1,004	1,088	1,135	1,183	1,226	1,284	1,334	1,369	1,404	1,439	1,474
Ending Stocks	0	0	0	5	6	7	8	9	10	10	11	12	12
Domestic Use	928	985	1,004	1,093	1,141	1,190	1,233	1,293	1,344	1,379	1,415	1,451	1,487
Net Trade	−715	−725	−750	−833	−872	−915	−953	−1,006	−1,050	−1,077	−1,106	−1,134	−1,161

Table 35. Myanmar Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	7,030	7,100	7,100	7,100	7,100	7,067	7,049	7,059	7,070	7,056	7,062	7,047	7,036
							(Metric Tons per Hectare)						
Yield	1.80	1.86	1.85	1.86	1.87	1.90	1.94	1.97	2.00	2.02	2.04	2.07	2.09
							(Thousand Metric Tons)						
Production	12,650	13,200	13,120	13,183	13,300	13,446	13,665	13,891	14,111	14,247	14,376	14,554	14,693
Beginning Stocks	1,241	551	861	991	1,028	981	884	790	745	748	752	756	761
Domestic Supply	13,891	13,751	13,981	14,174	14,328	14,427	14,549	14,681	14,856	14,995	15,129	15,311	15,454
Consumption	10,000	10,100	10,200	10,327	10,373	10,436	10,538	10,622	10,687	10,757	10,828	10,907	10,982
Ending Stocks	551	861	991	1,028	981	884	790	745	748	752	756	761	765
Domestic Use	10,551	10,961	11,191	11,355	11,353	11,320	11,328	11,367	11,436	11,510	11,584	11,668	11,747
Net Trade	3,340	2,790	2,790	2,819	2,975	3,106	3,222	3,314	3,421	3,485	3,544	3,643	3,707

Table 36. Nigeria Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	3,170	3,600	3,600	3,608	3,649	3,654	3,645	3,636	3,631	3,624	3,619	3,620	3,624
							(Metric Tons per Hectare)						
Yield	1.39	1.30	1.33	1.32	1.31	1.32	1.33	1.34	1.35	1.36	1.39	1.44	1.47
							(Thousand Metric Tons)						
Production	4,410	4,662	4,788	4,775	4,772	4,830	4,834	4,873	4,918	4,932	5,048	5,202	5,314
Beginning Stocks	1,528	1,738	1,300	1,088	1,013	973	947	929	917	908	902	898	895
Domestic Supply	5,938	6,400	6,088	5,863	5,785	5,803	5,781	5,802	5,835	5,840	5,950	6,100	6,209
Consumption	6,700	7,100	7,200	7,270	7,373	7,505	7,694	7,895	8,103	8,305	8,519	8,732	8,932
Ending Stocks	1,738	1,300	1,088	1,013	973	947	929	917	908	902	898	895	893
Domestic Use	8,438	8,400	8,288	8,283	8,346	8,452	8,623	8,812	9,011	9,207	9,417	9,627	9,824
Net Trade	−2,500	−2,000	−2,200	−2,420	−2,561	−2,649	−2,842	−3,010	−3,176	−3,367	−3,467	−3,527	−3,615

Table 37. Pakistan Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	2,724	2,901	2,800	2,795	2,780	2,775	2,776	2,764	2,755	2,740	2,735	2,732	2,726
							(Metric Tons per Hectare)						
Yield	2.51	2.57	2.64	2.66	2.70	2.71	2.75	2.76	2.79	2.81	2.84	2.86	2.89
							(Thousand Metric Tons)						
Production	6,849	7,450	7,400	7,447	7,493	7,532	7,623	7,639	7,682	7,708	7,762	7,822	7,871
Beginning Stocks	1,124	1,367	1,317	1,217	1,229	1,213	1,214	1,245	1,282	1,299	1,302	1,308	1,323
Domestic Supply	7,973	8,817	8,717	8,664	8,723	8,745	8,837	8,884	8,964	9,007	9,065	9,130	9,195
Consumption	3,100	3,200	3,250	3,322	3,337	3,304	3,312	3,327	3,371	3,406	3,445	3,489	3,525
Ending Stocks	1,367	1,317	1,217	1,229	1,213	1,214	1,245	1,282	1,299	1,302	1,308	1,323	1,298
Domestic Use	4,467	4,517	4,467	4,552	4,550	4,519	4,556	4,609	4,670	4,708	4,753	4,812	4,822
Net Trade	3,506	4,300	4,250	4,112	4,173	4,227	4,281	4,276	4,294	4,299	4,311	4,318	4,372

Table 38. Philippines Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	4,723	4,844	4,805	4,807	4,810	4,813	4,816	4,815	4,813	4,813	4,810	4,810	4,810
							(Metric Tons per Hectare)						
Yield	2.47	2.53	2.53	2.54	2.57	2.59	2.62	2.64	2.66	2.69	2.72	2.74	2.77
							(Thousand Metric Tons)						
Production	11,686	12,235	12,150	12,224	12,369	12,486	12,615	12,711	12,803	12,930	13,096	13,190	13,312
Beginning Stocks	2,117	2,003	2,288	3,088	3,010	2,921	2,761	2,743	2,715	2,629	2,528	2,524	2,487
Domestic Supply	13,803	14,238	14,438	15,312	15,379	15,407	15,376	15,454	15,518	15,559	15,625	15,713	15,799
Consumption	12,900	13,250	13,650	13,923	13,995	14,141	14,391	14,593	14,754	14,909	15,053	15,230	15,377
Ending Stocks	2,003	2,288	3,088	3,010	2,921	2,761	2,743	2,715	2,629	2,528	2,524	2,487	2,447
Domestic Use	14,903	15,538	16,738	16,933	16,917	16,901	17,134	17,308	17,383	17,437	17,577	17,717	17,824
Net Trade	−1,100	−1,300	−2,300	−1,621	−1,538	−1,494	−1,758	−1,853	−1,865	−1,877	−1,952	−2,004	−2,025

Table 39. Saudi Arabia Rice Supply and Use, 2016–2028

	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
							(Thousand Metric Tons)						
Beginning Stocks	410	255	205	205	224	224	225	226	227	228	229	231	233
Domestic Supply	410	255	205	205	224	224	225	226	227	228	229	231	233
Consumption	1,350	1,300	1,300	1,310	1,316	1,325	1,334	1,345	1,358	1,377	1,403	1,436	1,470
Ending Stocks	255	205	205	224	224	225	226	227	228	229	231	233	236
Domestic Use	1,605	1,505	1,505	1,534	1,541	1,550	1,560	1,572	1,585	1,606	1,633	1,669	1,706
Net Trade	−1,195	−1,250	−1,300	−1,329	−1,317	−1,325	−1,335	−1,346	−1,359	−1,379	−1,404	−1,438	−1,473

Table 40. Senegal Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	284	306	280	271	265	263	263	262	261	260	261	262	262
							(Metric Tons per Hectare)						
Yield	2.26	2.24	2.31	2.32	2.34	2.37	2.40	2.44	2.48	2.51	2.54	2.58	2.61
							(Thousand Metric Tons)						
Production	643	685	646	629	726	747	770	783	797	811	816	826	837
Beginning Stocks	251	234	234	245	246	252	259	264	269	272	275	277	281
Domestic Supply	894	919	880	874	973	1,000	1,029	1,047	1,066	1,083	1,091	1,103	1,118
Consumption	1,750	1,825	1,875	1,957	2,037	2,121	2,194	2,268	2,335	2,398	2,461	2,530	2,591
Ending Stocks	234	234	245	246	252	259	264	269	272	275	277	281	283
Domestic Use	1,984	2,059	2,120	2,203	2,289	2,380	2,457	2,536	2,607	2,673	2,738	2,811	2,874
Net Trade	−1,090	−1,140	−1,240	−1,329	−1,316	−1,381	−1,428	−1,490	−1,541	−1,590	−1,647	−1,708	−1,756

Table 41. Sierra Leone Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	754	700	700	704	711	718	724	731	737	742	746	750	754
							(Metric Tons per Hectare)						
Yield	0.97	1.26	1.08	1.17	1.24	1.29	1.34	1.38	1.43	1.47	1.51	1.55	1.59
							(Thousand Metric Tons)						
Production	731	882	756	820	885	925	972	1,011	1,050	1,090	1,125	1,161	1,202
Beginning Stocks	0	0	0	0	3	3	4	4	5	6	6	7	8
Domestic Supply	731	882	756	820	887	929	976	1,015	1,055	1,096	1,132	1,167	1,210
Consumption	1,101	1,232	1,156	1,303	1,328	1,354	1,386	1,417	1,450	1,482	1,517	1,552	1,583
Ending Stocks	0	0	0	3	3	4	4	5	6	6	7	8	8
Domestic Use	1,101	1,232	1,156	1,305	1,331	1,358	1,390	1,423	1,456	1,489	1,524	1,560	1,592
Net Trade	−370	−350	−400	−485	−444	−429	−414	−407	−400	−393	−392	−392	−382

Table 42. Singapore Rice Supply and Use, 2016–2028

	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
							(Thousand Metric Tons)						
Consumption	323	325	330	332	335	337	335	337	339	337	336	336	335
Ending Stocks	0	0	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	323	325	330	332	335	337	335	337	339	337	336	336	335
Net Trade	−323	−325	−330	−332	−335	−337	−335	−337	−339	−337	−336	−336	−335

Table 43. South Africa Rice Supply and Use, 2016–2028

	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
							(Thousand Metric Tons)						
Beginning Stocks	10	15	45	35	37	37	42	44	48	46	50	52	57
Domestic Supply	10	15	45	35	37	37	42	44	48	46	50	52	57
Consumption	860	850	860	909	935	959	969	988	981	998	1,012	1,034	1,057
Ending Stocks	15	45	35	37	37	42	44	48	46	50	52	57	61
Domestic Use	875	895	895	946	973	1,001	1,012	1,036	1,027	1,047	1,065	1,091	1,118
Net Trade	−865	−880	−850	−911	−936	−964	−971	−992	−979	−1,001	−1,015	−1,038	−1,061

Table 44. South Korea Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	779	755	738	738	734	730	725	719	708	699	682	662	651
							(Metric Tons per Hectare)						
Yield	5.39	5.26	5.24	5.38	5.42	5.43	5.44	5.44	5.46	5.47	5.48	5.49	5.51
							(Thousand Metric Tons)						
Production	4,197	3,972	3,868	3,974	3,973	3,966	3,941	3,914	3,863	3,822	3,736	3,636	3,585
Beginning Stocks	1,831	1,784	1,210	762	600	550	585	620	703	735	807	825	822
Domestic Supply	6,028	5,756	5,078	4,736	4,572	4,517	4,525	4,534	4,567	4,557	4,543	4,461	4,406
Consumption	4,651	4,883	4,673	4,545	4,431	4,341	4,314	4,239	4,241	4,158	4,127	4,048	4,048
Ending Stocks	1,784	1,210	762	600	550	585	620	703	735	807	825	822	767
Domestic Use	6,435	6,093	5,435	5,145	4,981	4,925	4,934	4,943	4,976	4,966	4,952	4,869	4,815
Net Trade	−407	−337	−357	−409	−409	−409	−409	−409	−409	−409	−409	−409	−409

Table 45. Taiwan Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	260	256	256	254	253	252	250	249	248	245	242	239	236
							(Metric Tons per Hectare)						
Yield	4.40	4.45	4.45	4.45	4.45	4.46	4.47	4.48	4.49	4.50	4.51	4.52	4.53
							(Thousand Metric Tons)						
Production	1,144	1,138	1,138	1,131	1,129	1,124	1,118	1,116	1,113	1,104	1,093	1,082	1,071
Beginning Stocks	243	340	398	406	410	414	411	401	387	370	349	323	290
Domestic Supply	1,387	1,478	1,536	1,537	1,539	1,538	1,528	1,517	1,500	1,473	1,441	1,405	1,362
Consumption	1,140	1,150	1,200	1,203	1,201	1,203	1,203	1,206	1,206	1,200	1,194	1,190	1,169
Ending Stocks	340	398	406	410	414	411	401	387	370	349	323	290	269
Domestic Use	1,480	1,548	1,606	1,613	1,615	1,614	1,604	1,593	1,576	1,549	1,517	1,481	1,438
Net Trade	−93	−70	−70	−76	−76	−76	−76	−76	−76	−76	−76	−76	−76

Table 46. Tanzania Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	1,200	1,200	1,200	1,209	1,220	1,244	1,274	1,307	1,338	1,371	1,412	1,459	1,502
							(Metric Tons per Hectare)						
Yield	1.89	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	2,263	2,046	2,046	2,098	2,155	2,236	2,330	2,432	2,535	2,642	2,769	2,912	3,052
Beginning Stocks	0	0	0	0	5	7	9	10	11	13	14	15	17
Domestic Supply	2,263	2,046	2,046	2,098	2,160	2,243	2,339	2,442	2,546	2,655	2,784	2,927	3,068
Consumption	2,463	2,266	2,226	2,522	2,692	2,826	2,951	3,076	3,210	3,331	3,445	3,555	3,667
Ending Stocks	0	0	0	5	7	9	10	11	13	14	15	17	18
Domestic Use	2,463	2,266	2,226	2,527	2,699	2,834	2,961	3,088	3,223	3,346	3,461	3,571	3,685
Net Trade	−200	−220	−180	−429	−540	−591	−622	−646	−677	−691	−677	−644	−617

Table 47. Thailand Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	10,247	10,684	10,960	11,016	11,033	11,051	11,077	11,104	11,145	11,173	11,192	11,204	11,209
							(Metric Tons per Hectare)						
Yield	1.87	1.91	1.89	1.93	1.95	1.97	1.99	2.00	2.03	2.05	2.07	2.08	2.10
							(Thousand Metric Tons)						
Production	19,200	20,370	20,700	21,238	21,481	21,729	21,993	22,260	22,629	22,900	23,184	23,350	23,544
Beginning Stocks	8,403	4,238	3,183	3,633	3,776	3,497	3,294	3,032	2,799	2,659	2,514	2,349	2,216
Domestic Supply	27,603	24,608	23,883	24,871	25,257	25,226	25,288	25,292	25,428	25,560	25,698	25,699	25,760
Consumption	12,000	10,600	10,500	10,693	10,707	10,711	10,717	10,709	10,711	10,705	10,702	10,696	10,686
Ending Stocks	4,238	3,183	3,633	3,776	3,497	3,294	3,032	2,799	2,659	2,514	2,349	2,216	2,203
Domestic Use	16,238	13,783	14,133	14,469	14,204	14,006	13,749	13,507	13,370	13,219	13,051	12,912	12,890
Net Trade	11,365	10,825	9,750	10,402	11,053	11,221	11,539	11,785	12,058	12,341	12,647	12,787	12,871

Table 48. Turkey Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	98	99	100	101	103	103	104	104	104	104	105	105	105
							(Metric Tons per Hectare)						
Yield	5.10	5.25	5.40	5.46	5.52	5.58	5.63	5.69	5.75	5.81	5.87	5.93	5.98
							(Thousand Metric Tons)						
Production	500	520	540	553	566	576	584	592	599	606	613	621	628
Beginning Stocks	128	71	93	68	69	73	74	74	73	73	74	74	74
Domestic Supply	628	591	633	621	635	649	658	665	672	679	687	695	703
Consumption	780	800	790	799	818	826	828	829	835	841	847	851	856
Ending Stocks	71	93	68	69	73	74	74	73	73	74	74	74	74
Domestic Use	851	893	858	869	891	900	901	902	908	914	922	925	931
Net Trade	−223	−302	−225	−248	−256	−251	−243	−237	−237	−235	−235	−230	−228

Table 49. Uruguay Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	164	160	150	153	156	157	156	155	154	156	157	158	157
							(Metric Tons per Hectare)						
Yield	6.02	5.95	5.91	5.86	5.91	5.95	6.03	6.11	6.19	6.27	6.35	6.43	6.51
							(Thousand Metric Tons)						
Production	987	952	887	896	924	935	941	944	955	976	999	1,014	1,024
Beginning Stocks	62	44	81	103	108	114	119	126	132	139	146	153	161
Domestic Supply	1,049	996	968	999	1,033	1,049	1,060	1,070	1,088	1,115	1,145	1,168	1,186
Consumption	55	65	65	66	64	64	64	64	65	64	64	64	63
Ending Stocks	44	81	103	108	114	119	126	132	139	146	153	161	169
Domestic Use	99	146	168	174	177	183	190	197	204	210	217	225	233
Net Trade	950	850	800	825	855	865	870	873	884	905	927	943	953

Table 50. Vietnam Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	7,714	7,690	7,760	7,754	7,737	7,719	7,698	7,678	7,657	7,629	7,599	7,558	7,520
							(Metric Tons per Hectare)						
Yield	3.55	3.70	3.75	3.75	3.78	3.79	3.81	3.83	3.85	3.86	3.88	3.91	3.92
							(Thousand Metric Tons)						
Production	27,400	28,471	29,069	29,113	29,225	29,260	29,334	29,433	29,447	29,449	29,503	29,517	29,493
Beginning Stocks	1,555	967	1,248	1,517	1,601	1,919	2,066	2,187	2,215	2,170	2,067	2,026	1,961
Domestic Supply	28,955	29,438	30,317	30,630	30,826	31,179	31,400	31,620	31,662	31,619	31,570	31,543	31,455
Consumption	22,000	22,000	22,200	22,414	22,338	22,514	22,569	22,729	22,730	22,708	22,622	22,646	22,639
Ending Stocks	967	1,248	1,517	1,601	1,919	2,066	2,187	2,215	2,170	2,067	2,026	1,961	1,886
Domestic Use	22,967	23,248	23,717	24,015	24,257	24,579	24,756	24,944	24,900	24,775	24,647	24,608	24,524
Net Trade	5,988	6,190	6,600	6,615	6,569	6,599	6,644	6,676	6,763	6,844	6,923	6,935	6,930

Table 51. Cuba Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	140	112	140	154	158	164	168	171	172	173	174	175	176
							(Metric Tons per Hectare)						
Yield	2.39	2.35	2.32	2.25	2.25	2.28	2.30	2.33	2.35	2.36	2.37	2.38	2.38
							(Thousand Metric Tons)						
Production	335	263	325	347	356	375	388	397	405	409	412	415	418
Beginning Stocks	0	0	0	0	1	1	1	2	2	2	2	3	3
Domestic Supply	335	263	325	347	357	376	389	399	407	411	414	418	421
Consumption	859	762	825	833	846	857	871	887	902	909	915	925	932
Ending Stocks	0	0	0	1	1	1	2	2	2	2	3	3	3
Domestic Use	859	762	825	834	848	859	873	889	905	912	917	927	935
Net Trade	−524	−499	−500	−487	−491	−483	−484	−490	−498	−501	−503	−510	−514

Table 52. Costa Rica Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	46	39	39	48	51	53	53	54	54	54	55	55	55
							(Metric Tons per Hectare)						
Yield	2.83	2.18	2.82	2.43	2.41	2.41	2.41	2.41	2.41	2.41	2.42	2.42	2.42
							(Thousand Metric Tons)						
Production	130	85	110	116	123	127	129	130	130	131	132	133	134
Beginning Stocks	35	60	24	28	32	32	32	33	33	33	33	34	34
Domestic Supply	165	145	134	144	155	159	161	163	163	164	165	166	168
Consumption	260	250	258	262	265	269	272	275	278	280	283	285	287
Ending Stocks	60	24	28	32	32	32	33	33	33	33	34	34	34
Domestic Use	320	274	286	294	298	301	305	308	311	314	316	319	321
Net Trade	−155	−129	−152	−150	−142	−142	−143	−145	−148	−150	−151	−152	−153

Table 53. Dominican Republic Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	168	174	165	158	153	150	148	147	146	147	148	150	152
							(Metric Tons per Hectare)						
Yield	3.42	3.38	3.45	3.48	3.50	3.56	3.57	3.58	3.59	3.61	3.63	3.65	3.67
							(Thousand Metric Tons)						
Production	575	588	570	551	536	533	527	525	525	531	538	549	558
Beginning Stocks	184	235	276	311	278	278	279	279	280	280	281	282	282
Domestic Supply	759	823	846	862	814	811	806	805	805	811	819	830	840
Consumption	555	555	555	575	580	586	593	599	604	610	620	624	627
Ending Stocks	235	276	311	278	278	279	279	280	280	281	282	282	282
Domestic Use	790	831	866	853	859	865	873	879	884	891	902	906	910
Net Trade	−31	−8	−20	9	−45	−54	−67	−74	−79	−80	−83	−76	−69

Table 54. Guatemala Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	11	11	11	11	11	11	11	11	12	12	12	12	12
							(Metric Tons per Hectare)						
Yield	2.18	2.18	2.18	2.20	2.22	2.24	2.26	2.28	2.30	2.31	2.33	2.34	2.36
							(Thousand Metric Tons)						
Production	24	24	24	24	24	25	25	26	26	27	28	29	29
Beginning Stocks	0	0	0	0	1	1	1	1	1	2	2	2	2
Domestic Supply	24	24	24	24	25	26	26	27	28	29	30	30	31
Consumption	121	112	124	127	130	134	137	141	145	149	152	156	160
Ending Stocks	0	0	0	1	1	1	1	1	2	2	2	2	2
Domestic Use	121	112	124	128	131	135	139	143	147	150	154	158	162
Net Trade	−97	−88	−100	−104	−106	−109	−112	−116	−119	−122	−125	−128	−131

Table 55. Honduras Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	26	26	26	26	26	26	26	26	26	26	26	27	27
							(Metric Tons per Hectare)						
Yield	2.69	2.69	2.69	2.77	2.84	2.92	2.99	3.07	3.15	3.23	3.30	3.38	3.46
							(Thousand Metric Tons)						
Production	70	70	70	71	73	75	76	79	81	83	86	90	93
Beginning Stocks	93	71	33	32	34	36	36	37	38	38	39	39	40
Domestic Supply	163	141	103	103	107	110	113	116	119	122	125	129	133
Consumption	215	210	215	246	269	282	298	309	320	330	339	349	360
Ending Stocks	71	33	32	34	36	36	37	38	38	39	39	40	40
Domestic Use	286	243	247	280	305	318	335	347	358	368	378	389	400
Net Trade	−123	−102	−144	−177	−198	−208	−222	−231	−239	−247	−253	−260	−267

Table 56. Nicaragua Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	104	104	104	105	106	107	109	110	111	112	114	115	117
							(Metric Tons per Hectare)						
Yield	2.79	2.79	2.88	2.89	2.92	2.95	2.98	3.01	3.03	3.06	3.09	3.11	3.14
							(Thousand Metric Tons)						
Production	290	290	300	305	311	317	324	330	337	343	350	358	366
Beginning Stocks	136	150	148	153	134	135	136	138	139	140	142	143	144
Domestic Supply	426	440	448	458	445	452	460	468	476	484	492	501	510
Consumption	365	355	375	385	389	397	406	414	423	430	438	446	453
Ending Stocks	150	148	153	134	135	136	138	139	140	142	143	144	146
Domestic Use	515	503	528	520	524	534	543	553	563	572	581	590	599
Net Trade	−89	−63	−80	−61	−79	−82	−83	−85	−87	−88	−88	−89	−89

Table 57. Panama Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	84	83	83	87	89	89	89	88	88	88	88	88	88
							(Metric Tons per Hectare)						
Yield	2.49	2.48	2.48	2.52	2.52	2.55	2.59	2.62	2.66	2.69	2.73	2.76	2.80
							(Thousand Metric Tons)						
Production	209	206	206	220	224	227	231	232	234	237	240	243	247
Beginning Stocks	44	59	65	66	30	30	30	31	31	31	32	32	32
Domestic Supply	253	265	271	286	253	258	261	263	265	268	272	275	279
Consumption	260	280	290	293	295	297	299	301	302	304	305	306	307
Ending Stocks	59	65	66	30	30	30	31	31	31	32	32	32	32
Domestic Use	319	345	356	323	325	327	329	332	334	335	336	338	339
Net Trade	−66	−80	−85	−38	−72	−70	−68	−69	−69	−67	−65	−63	−60

Table 58. Chile Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	21	30	30	30	30	30	31	31	32	32	33	33	33
							(Metric Tons per Hectare)						
Yield	3.90	4.13	4.27	4.31	4.34	4.40	4.46	4.52	4.58	4.64	4.69	4.74	4.79
							(Thousand Metric Tons)						
Production	82	124	128	131	131	134	138	142	146	149	153	156	158
Beginning Stocks	56	39	61	65	48	49	50	51	52	53	54	55	56
Domestic Supply	138	163	189	196	179	183	188	193	198	202	207	211	215
Consumption	235	260	282	288	293	299	304	311	317	324	331	338	345
Ending Stocks	39	61	65	48	49	50	51	52	53	54	55	56	58
Domestic Use	274	321	347	336	342	348	355	362	370	378	386	394	403
Net Trade	−136	−158	−158	−140	−163	−166	−168	−170	−172	−175	−179	−184	−188

Table 59. Paraguay Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	140	150	158	161	164	166	169	173	176	180	184	189	194
							(Metric Tons per Hectare)						
Yield	4.42	4.35	4.32	4.41	4.43	4.50	4.57	4.62	4.68	4.73	4.78	4.84	4.89
							(Thousand Metric Tons)						
Production	619	653	683	711	725	750	775	799	824	850	880	913	949
Beginning Stocks	207	260	191	158	156	148	141	135	124	117	118	119	117
Domestic Supply	826	913	874	869	881	898	915	934	949	967	997	1,033	1,066
Consumption	68	70	68	68	67	66	65	66	65	63	61	59	57
Ending Stocks	260	191	158	156	148	141	135	124	117	118	119	117	118
Domestic Use	328	261	226	224	215	207	201	190	182	181	180	177	175
Net Trade	498	652	648	645	666	691	715	744	767	786	817	856	891

Table 60. Peru Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	420	422	414	421	424	427	430	433	436	439	443	447	452
							(Metric Tons per Hectare)						
Yield	5.20	4.97	5.07	5.14	5.20	5.26	5.32	5.38	5.44	5.50	5.57	5.63	5.70
							(Thousand Metric Tons)						
Production	2,185	2,097	2,100	2,161	2,206	2,248	2,289	2,330	2,372	2,414	2,463	2,518	2,574
Beginning Stocks	273	238	217	137	154	178	191	200	209	219	232	253	276
Domestic Supply	2,458	2,335	2,317	2,298	2,360	2,425	2,480	2,531	2,581	2,633	2,696	2,770	2,849
Consumption	2,400	2,422	2,430	2,473	2,509	2,550	2,585	2,620	2,655	2,686	2,719	2,759	2,798
Ending Stocks	238	217	137	154	178	191	200	209	219	232	253	276	301
Domestic Use	2,638	2,639	2,567	2,627	2,686	2,741	2,786	2,829	2,873	2,918	2,972	3,035	3,099
Net Trade	−180	−304	−250	−329	−326	−315	−306	−298	−292	−286	−277	−264	−249

Table 61. Madagascar Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	1,475	1,425	1,500	1,508	1,521	1,550	1,595	1,625	1,698	1,728	1,759	1,791	1,823
							(Metric Tons per Hectare)						
Yield	1.66	1.39	1.83	1.69	1.73	1.76	1.79	1.81	1.84	1.86	1.88	1.90	1.93
							(Thousand Metric Tons)						
Production	2,442	1,984	2,752	2,545	2,627	2,725	2,858	2,948	3,118	3,213	3,309	3,409	3,511
Beginning Stocks	0	0	0	0	6	8	10	11	11	13	13	14	15
Domestic Supply	2,442	1,984	2,752	2,545	2,633	2,733	2,867	2,959	3,129	3,226	3,322	3,423	3,526
Consumption	2,772	2,659	3,052	3,157	3,252	3,356	3,489	3,595	3,750	3,848	3,949	4,050	4,151
Ending Stocks	0	0	0	6	8	10	11	11	13	13	14	15	15
Domestic Use	2,772	2,659	3,052	3,163	3,260	3,366	3,500	3,606	3,763	3,861	3,963	4,064	4,165
Net Trade	−330	−675	−300	−618	−627	−633	−633	−647	−633	−636	−641	−642	−640

Table 62. Malawi Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	65	65	65	65	66	66	67	67	68	69	69	70	71
							(Metric Tons per Hectare)						
Yield	1.28	1.28	1.28	1.32	1.33	1.35	1.36	1.38	1.39	1.40	1.42	1.43	1.45
							(Thousand Metric Tons)						
Production	83	83	83	86	88	89	91	93	94	96	98	101	103
Beginning Stocks	0	0	0	0	1	1	1	1	1	2	2	2	2
Domestic Supply	83	83	83	86	89	90	92	94	96	98	100	102	105
Consumption	98	98	98	109	114	118	122	126	131	135	139	143	148
Ending Stocks	0	0	0	1	1	1	1	1	2	2	2	2	2
Domestic Use	98	98	98	111	115	119	123	128	132	136	141	145	149
Net Trade	−15	−15	−15	−25	−26	−29	−31	−34	−36	−38	−40	−43	−45

Table 63. Zambia Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	30	30	30	31	32	33	34	35	36	37	38	39	40
							(Metric Tons per Hectare)						
Yield	1.00	1.00	1.00	1.04	1.07	1.10	1.13	1.15	1.17	1.20	1.22	1.25	1.27
							(Thousand Metric Tons)						
Production	30	30	30	32	34	36	38	40	42	44	46	49	51
Beginning Stocks	0	0	0	0	1	1	1	1	1	1	1	1	1
Domestic Supply	30	30	30	32	35	37	39	41	43	45	47	50	52
Consumption	40	40	40	41	43	46	49	52	54	56	58	61	64
Ending Stocks	0	0	0	1	1	1	1	1	1	1	1	1	1
Domestic Use	40	40	40	42	44	47	50	53	55	57	60	62	65
Net Trade	−10	−10	−10	−10	−9	−10	−11	−12	−12	−12	−12	−13	−12

Table 64. Rwanda Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	16	16	16	17	17	18	18	19	20	20	21	22	23
							(Metric Tons per Hectare)						
Yield	3.63	3.63	3.63	3.69	3.73	3.78	3.82	3.87	3.91	3.95	3.99	4.05	4.09
							(Thousand Metric Tons)						
Production	58	58	58	61	64	67	70	73	76	80	84	88	92
Beginning Stocks	0	0	0	0	2	3	3	3	4	4	4	4	5
Domestic Supply	58	58	58	61	66	70	73	77	80	83	88	92	97
Consumption	98	98	98	176	191	209	224	239	252	264	275	287	296
Ending Stocks	0	0	0	2	3	3	3	4	4	4	4	5	5
Domestic Use	98	98	98	178	194	212	227	242	256	268	279	292	301
Net Trade	−40	−40	−40	−117	−127	−142	−154	−166	−176	−185	−192	−200	−205

Table 65. Uganda Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	98	98	98	99	99	99	99	99	99	100	103	109	114
							(Metric Tons per Hectare)						
Yield	1.64	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	161	159	159	162	163	165	166	167	170	173	180	191	202
Beginning Stocks	0	0	0	0	1	2	2	2	2	3	3	3	3
Domestic Supply	161	159	159	162	165	167	168	170	172	176	183	195	206
Consumption	241	239	244	275	291	308	321	333	348	363	374	387	402
Ending Stocks	0	0	0	1	2	2	2	2	3	3	3	3	4
Domestic Use	241	239	244	276	293	310	323	335	351	366	377	390	406
Net Trade	−80	−80	−85	−114	−128	−143	−155	−166	−179	−190	−194	−195	−200

Table 66. Haiti Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	57	62	66	72	76	78	80	80	81	82	82	83	83
							(Metric Tons per Hectare)						
Yield	1.09	1.08	1.08	1.08	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.08	1.08
							(Thousand Metric Tons)						
Production	62	67	71	78	82	84	85	86	87	88	88	89	90
Beginning Stocks	47	49	61	67	72	73	74	75	76	77	78	79	80
Domestic Supply	109	116	132	145	154	157	159	161	163	164	166	168	169
Consumption	530	550	610	624	632	640	648	658	669	679	688	698	708
Ending Stocks	49	61	67	72	73	74	75	76	77	78	79	80	81
Domestic Use	579	611	677	696	705	714	722	734	746	757	767	778	789
Net Trade	−470	−495	−545	−551	−551	−557	−563	−573	−583	−592	−601	−610	−619

Table 67. Venezuela Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	125	135	86	88	90	91	92	93	94	95	96	97	98
							(Metric Tons per Hectare)						
Yield	2.44	2.04	1.98	2.18	2.08	2.09	2.10	2.11	2.12	2.13	2.15	2.16	2.16
							(Thousand Metric Tons)						
Production	305	275	170	192	186	190	194	197	200	203	206	210	212
Beginning Stocks	57	42	73	73	68	69	71	72	74	76	78	81	84
Domestic Supply	362	317	243	265	254	259	264	270	274	279	285	291	296
Consumption	630	620	720	730	743	754	769	781	797	817	839	863	889
Ending Stocks	42	73	73	68	69	71	72	74	76	78	81	84	87
Domestic Use	672	693	793	798	812	825	841	855	873	895	920	947	976
Net Trade	−310	−376	−550	−533	−558	−566	−577	−586	−599	−617	−635	−656	−681

Table 68. Guyana Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	150	172	180	187	194	199	205	210	215	219	224	229	234
							(Metric Tons per Hectare)						
Yield	3.57	3.66	3.61	3.65	3.68	3.72	3.76	3.80	3.84	3.88	3.92	3.96	3.99
							(Thousand Metric Tons)						
Production	535	630	650	682	713	742	770	798	824	851	879	907	935
Beginning Stocks	185	119	114	104	122	128	132	138	143	148	153	156	159
Domestic Supply	720	749	764	786	835	869	903	935	967	999	1,032	1,063	1,094
Consumption	170	180	180	189	196	202	209	215	222	228	232	236	238
Ending Stocks	119	114	104	122	128	132	138	143	148	153	156	159	161
Domestic Use	289	294	284	311	323	334	347	357	371	382	388	395	399
Net Trade	431	455	480	475	512	535	556	578	596	618	643	668	695

Table 69. Sri Lanka Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	686	769	900	910	920	929	937	944	950	956	962	966	971
							(Metric Tons per Hectare)						
Yield	2.97	2.92	2.92	2.94	2.95	2.96	2.98	2.99	3.00	3.01	3.03	3.04	3.05
							(Thousand Metric Tons)						
Production	2,034	2,248	2,631	2,674	2,714	2,752	2,788	2,821	2,853	2,883	2,911	2,938	2,963
Beginning Stocks	847	431	374	405	585	593	596	601	606	611	614	616	618
Domestic Supply	2,881	2,679	3,005	3,079	3,299	3,345	3,384	3,422	3,459	3,494	3,525	3,554	3,581
Consumption	3,000	2,850	2,900	2,925	2,965	2,981	3,004	3,029	3,056	3,072	3,082	3,089	3,097
Ending Stocks	431	374	405	585	593	596	601	606	611	614	616	618	619
Domestic Use	3,431	3,224	3,305	3,510	3,558	3,577	3,605	3,635	3,667	3,686	3,699	3,707	3,717
Net Trade	−550	−545	−300	−431	−259	−232	−221	−213	−208	−192	−174	−153	−136

WORLD REGIONAL RICE SUPPLY AND USE

Table 70. Africa Region Total Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	13,011	13,279	13,082	13,170	13,253	13,383	13,534	13,660	13,814	13,949	14,097	14,257	14,412
							(Metric Tons per Hectare)						
Yield	1.72	1.65	1.63	1.64	1.68	1.71	1.74	1.77	1.80	1.82	1.85	1.88	1.91
							(Thousand Metric Tons)						
Production	22,431	21,855	21,268	21,562	22,218	22,923	23,588	24,185	24,821	25,381	26,044	26,783	27,477
Beginning Stocks	3,781	4,653	4,465	3,342	3,263	3,287	3,348	3,387	3,413	3,434	3,448	3,453	3,468
Domestic Supply	26,212	26,508	25,733	24,904	25,481	26,210	26,936	27,572	28,234	28,815	29,492	30,236	30,944
Consumption	36,443	37,440	38,656	40,593	41,924	43,258	44,726	46,069	47,430	48,671	49,886	51,178	52,413
Ending Stocks	4,653	4,465	3,342	3,263	3,287	3,348	3,387	3,413	3,434	3,448	3,453	3,468	3,501
Domestic Use	41,096	41,905	41,998	43,856	45,211	46,606	48,114	49,483	50,864	52,119	53,339	54,645	55,914
Net Trade	−14,884	−15,397	−16,265	−18,952	−19,730	−20,396	−21,178	−21,911	−22,630	−23,304	−23,848	−24,410	−24,969

Table 71. African Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	12,435	12,686	12,489	12,577	12,659	12,787	12,936	13,058	13,208	13,338	13,479	13,635	13,787
							(Metric Tons per Hectare)						
Yield	1.77	1.69	1.67	1.69	1.73	1.76	1.79	1.82	1.85	1.87	1.90	1.93	1.96
							(Thousand Metric Tons)						
Production	22,059	21,462	20,863	21,203	21,847	22,539	23,199	23,789	24,419	24,971	25,626	26,358	27,045
Beginning Stocks	3,694	4,577	4,359	3,246	3,132	3,156	3,216	3,254	3,280	3,300	3,313	3,317	3,331
Domestic Supply	25,753	26,039	25,222	24,449	24,979	25,695	26,415	27,043	27,698	28,270	28,938	29,675	30,376
Consumption	33,495	34,503	35,608	37,464	38,761	40,029	41,424	42,772	44,090	45,283	46,458	47,715	48,920
Ending Stocks	4,577	4,359	3,246	3,132	3,156	3,216	3,254	3,280	3,300	3,313	3,317	3,331	3,363
Domestic Use	38,072	38,862	38,854	40,596	41,917	43,245	44,678	46,052	47,389	48,596	49,775	51,046	52,284
Net Trade	−12,319	−12,823	−13,632	−16,148	−16,938	−17,549	−18,263	−19,009	−19,691	−20,325	−20,836	−21,371	−21,908

Table 72. African Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	576	593	593	593	594	596	598	602	606	611	617	622	625
							(Metric Tons per Hectare)						
Yield	0.65	0.66	0.68	0.61	0.63	0.64	0.65	0.66	0.66	0.67	0.68	0.68	0.69
							(Thousand Metric Tons)						
Production	372	393	405	359	371	384	389	395	402	410	418	425	432
Beginning Stocks	87	76	106	96	130	131	132	134	133	134	135	136	137
Domestic Supply	459	469	511	455	501	514	521	529	536	544	553	561	568
Consumption	2,948	2,937	3,048	3,129	3,163	3,229	3,302	3,297	3,340	3,388	3,428	3,463	3,493
Ending Stocks	76	106	96	130	131	132	134	133	134	135	136	137	137
Domestic Use	3,024	3,043	3,144	3,259	3,294	3,362	3,436	3,431	3,474	3,523	3,564	3,599	3,630
Net Trade	−2,565	−2,574	−2,633	−2,804	−2,793	−2,847	−2,915	−2,902	−2,939	−2,979	−3,011	−3,038	−3,062

Table 73. Western Hemisphere Region Total Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	6,187	5,949	5,943	6,032	6,072	6,122	6,164	6,192	6,210	6,227	6,246	6,272	6,290
							(Metric Tons per Hectare)						
Yield	4.17	4.09	4.22	4.17	4.20	4.25	4.29	4.33	4.37	4.40	4.44	4.48	4.51
							(Thousand Metric Tons)						
Production	25,800	24,357	25,080	25,146	25,495	26,010	26,448	26,804	27,125	27,427	27,745	28,076	28,360
Beginning Stocks	3,975	4,279	3,772	4,200	4,009	3,902	3,959	4,113	4,259	4,380	4,450	4,472	4,441
Domestic Supply	29,775	28,636	28,852	29,346	29,504	29,911	30,406	30,917	31,385	31,807	32,196	32,548	32,800
Consumption	23,871	23,823	24,169	25,060	25,358	25,611	25,879	26,140	26,390	26,579	26,736	26,915	27,072
Ending Stocks	4,279	3,772	4,200	4,009	3,902	3,959	4,113	4,259	4,380	4,450	4,472	4,441	4,342
Domestic Use	28,150	27,595	28,369	29,068	29,259	29,569	29,992	30,400	30,770	31,029	31,208	31,355	31,414
Net Trade	1,625	1,041	483	278	245	342	414	517	615	778	988	1,193	1,386

Table 74. Western Hemisphere Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	5,659	5,423	5,420	5,518	5,559	5,609	5,652	5,680	5,697	5,715	5,734	5,760	5,777
							(Metric Tons per Hectare)						
Yield	4.36	4.25	4.39	4.32	4.35	4.40	4.45	4.49	4.53	4.57	4.61	4.64	4.68
							(Thousand Metric Tons)						
Production	24,664	23,043	23,776	23,858	24,196	24,705	25,138	25,489	25,806	26,104	26,417	26,743	27,023
Beginning Stocks	3,840	4,138	3,579	4,070	3,817	3,708	3,764	3,918	4,066	4,188	4,262	4,287	4,258
Domestic Supply	28,504	27,181	27,355	27,928	28,013	28,413	28,902	29,408	29,872	30,292	30,680	31,031	31,280
Consumption	22,497	22,312	22,621	23,350	23,640	23,889	24,156	24,422	24,682	24,889	25,060	25,249	25,424
Ending Stocks	4,138	3,579	4,070	3,817	3,708	3,764	3,918	4,066	4,188	4,262	4,287	4,258	4,162
Domestic Use	26,635	25,891	26,691	27,167	27,348	27,653	28,074	28,488	28,870	29,151	29,348	29,507	29,586
Net Trade	1,869	1,290	664	760	665	759	828	920	1,002	1,141	1,332	1,524	1,695

Table 75. Western Hemisphere Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	528	526	523	514	513	513	512	512	512	512	512	512	512
							(Metric Tons per Hectare)						
Yield	2.15	2.50	2.49	2.50	2.53	2.55	2.56	2.57	2.58	2.58	2.59	2.60	2.61
							(Thousand Metric Tons)						
Production	1,136	1,314	1,304	1,288	1,299	1,305	1,310	1,314	1,319	1,323	1,328	1,332	1,337
Beginning Stocks	135	141	193	130	192	194	194	195	194	192	188	185	183
Domestic Supply	1,271	1,455	1,497	1,418	1,491	1,498	1,504	1,509	1,513	1,515	1,516	1,517	1,520
Consumption	1,374	1,511	1,548	1,709	1,718	1,722	1,723	1,719	1,708	1,690	1,675	1,665	1,649
Ending Stocks	141	193	130	192	194	194	195	194	192	188	185	183	180
Domestic Use	1,515	1,704	1,678	1,901	1,911	1,916	1,918	1,912	1,900	1,878	1,860	1,848	1,829
Net Trade	−244	−249	−181	−483	−421	−418	−414	−403	−387	−363	−344	−331	−309

Table 76. Asian Region Total Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	142,631	142,880	143,301	143,332	142,896	142,708	142,494	142,317	142,095	141,958	141,887	141,723	141,613
							(Metric Tons per Hectare)						
Yield	3.09	3.12	3.12	3.09	3.11	3.13	3.14	3.16	3.17	3.19	3.20	3.21	3.23
							(Thousand Metric Tons)						
Production	440,038	446,403	447,415	443,417	444,603	446,316	447,912	449,784	450,994	452,560	454,357	455,576	457,103
Beginning Stocks	133,531	139,350	152,497	158,975	161,619	162,511	162,282	160,712	158,307	154,658	150,891	147,371	143,691
Domestic Supply	573,569	585,753	599,912	602,392	606,222	608,827	610,195	610,496	609,302	607,219	605,248	602,947	600,795
Consumption	414,241	417,819	421,498	423,305	425,448	427,665	430,005	432,146	434,054	435,284	436,534	437,602	438,409
Ending Stocks	139,335	152,452	158,975	161,619	162,511	162,282	160,712	158,307	154,658	150,891	147,371	143,691	140,405
Domestic Use	553,576	570,271	580,473	584,924	587,959	589,947	590,717	590,454	588,712	586,175	583,906	581,293	578,813
Net Trade	19,993	15,482	19,439	17,467	18,263	18,880	19,478	20,042	20,590	21,043	21,343	21,654	21,981

Table 77. Asian Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	140,007	140,267	140,664	140,708	140,277	140,091	139,878	139,701	139,480	139,343	139,272	139,107	138,997
							(Metric Tons per Hectare)						
Yield	3.09	3.14	3.13	3.10	3.12	3.14	3.15	3.17	3.18	3.20	3.21	3.22	3.24
							(Thousand Metric Tons)						
Production	433,300	439,970	440,720	436,833	437,976	439,640	441,115	442,932	444,053	445,577	447,339	448,539	450,039
Beginning Stocks	133,165	139,012	152,173	158,655	161,252	162,161	161,953	160,382	157,976	154,326	150,560	147,040	143,360
Domestic Supply	566,465	578,982	592,893	595,488	599,229	601,801	603,068	603,314	602,029	599,904	597,899	595,579	593,399
Consumption	405,826	409,635	413,285	414,641	416,639	418,851	421,148	423,242	425,128	426,370	427,628	428,689	429,518
Ending Stocks	139,012	152,173	158,655	161,252	162,161	161,953	160,382	157,976	154,326	150,560	147,040	143,360	140,074
Domestic Use	544,838	561,808	571,940	575,893	578,801	580,804	581,530	581,218	579,455	576,930	574,668	572,049	569,592
Net Trade	21,627	17,174	20,953	19,594	20,428	20,997	21,538	22,096	22,574	22,973	23,231	23,530	23,807

Table 78. Asian Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	2,624	2,613	2,637	2,624	2,619	2,617	2,616	2,616	2,615	2,615	2,615	2,615	2,615
							(Metric Tons per Hectare)						
Yield	2.57	2.46	2.54	2.51	2.53	2.55	2.60	2.62	2.65	2.67	2.68	2.69	2.70
							(Thousand Metric Tons)						
Production	6,738	6,433	6,695	6,584	6,627	6,676	6,797	6,852	6,941	6,983	7,017	7,037	7,064
Beginning Stocks	356	323	279	320	367	349	329	330	331	332	331	331	331
Domestic Supply	7,094	6,756	6,974	6,904	6,993	7,026	7,127	7,182	7,273	7,315	7,349	7,369	7,396
Consumption	8,415	8,184	8,213	8,665	8,809	8,814	8,857	8,904	8,926	8,914	8,906	8,913	8,891
Ending Stocks	323	279	320	367	349	329	330	331	332	331	331	331	331
Domestic Use	8,738	8,463	8,533	9,031	9,158	9,143	9,187	9,235	9,257	9,245	9,237	9,244	9,222
Net Trade	−1,644	−1,707	−1,559	−2,127	−2,165	−2,118	−2,061	−2,053	−1,985	−1,930	−1,888	−1,876	−1,826

Table 79. European Region Total Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	443	434	420	427	436	444	448	450	452	453	455	457	459
							(Metric Tons per Hectare)						
Yield	4.73	4.63	4.77	4.90	4.89	4.87	4.91	4.95	4.96	4.98	5.01	5.02	5.04
							(Thousand Metric Tons)						
Production	2,097	2,010	2,004	2,092	2,129	2,161	2,199	2,225	2,241	2,259	2,278	2,297	2,314
Beginning Stocks	1,207	1,206	1,157	1,055	1,004	946	906	875	847	810	755	702	653
Domestic Supply	3,304	3,216	3,161	3,147	3,133	3,108	3,104	3,099	3,088	3,069	3,032	2,999	2,967
Consumption	3,734	3,810	3,876	3,913	3,956	3,994	4,031	4,071	4,113	4,143	4,168	4,194	4,213
Ending Stocks	1,206	1,157	1,055	1,004	946	906	875	847	810	755	702	653	605
Domestic Use	4,940	4,967	4,931	4,917	4,902	4,900	4,905	4,918	4,923	4,897	4,870	4,847	4,818
Net Trade	−1,636	−1,751	−1,770	−1,771	−1,769	−1,792	−1,801	−1,818	−1,836	−1,828	−1,838	−1,848	−1,851

Table 80. European Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	440	431	417	424	433	441	445	447	449	450	452	454	456
							(Metric Tons per Hectare)						
Yield	4.74	4.64	4.78	4.91	4.90	4.88	4.92	4.96	4.97	4.99	5.02	5.03	5.05
							(Thousand Metric Tons)						
Production	2,087	2,000	1,994	2,082	2,119	2,151	2,188	2,214	2,231	2,248	2,267	2,286	2,303
Beginning Stocks	1,183	1,192	1,142	1,036	961	901	858	826	798	761	705	653	603
Domestic Supply	3,270	3,192	3,136	3,118	3,081	3,052	3,046	3,040	3,028	3,009	2,972	2,939	2,906
Consumption	3,600	3,700	3,750	3,777	3,804	3,828	3,859	3,897	3,937	3,966	3,991	4,015	4,034
Ending Stocks	1,192	1,142	1,036	961	901	858	826	798	761	705	653	603	555
Domestic Use	4,792	4,842	4,786	4,738	4,705	4,686	4,685	4,694	4,698	4,671	4,643	4,618	4,588
Net Trade	−1,522	−1,650	−1,650	−1,620	−1,625	−1,633	−1,638	−1,654	−1,669	−1,662	−1,671	−1,679	−1,682

Table 81. European Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	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
							(Thousand Metric Tons)						
Production	10	10	10	10	10	10	10	10	10	10	11	11	11
Beginning Stocks	24	14	15	19	43	45	48	49	49	49	49	50	50
Domestic Supply	34	24	25	29	53	55	58	59	60	60	60	60	61
Consumption	134	110	126	137	151	166	172	175	176	177	178	179	180
Ending Stocks	14	15	19	43	45	48	49	49	49	49	50	50	50
Domestic Use	148	125	145	179	197	214	220	224	226	226	227	229	229
Net Trade	−114	−101	−120	−150	−144	−159	−163	−165	−166	−166	−167	−169	−169

Table 82. Oceania Region total Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	82	60	15	55	59	58	58	57	57	57	57	57	57
							(Metric Tons per Hectare)						
Yield	7.09	7.57	7.33	7.71	7.81	7.92	8.03	8.15	8.26	8.37	8.49	8.60	8.71
							(Thousand Metric Tons)						
Production	581	454	110	421	459	462	465	466	469	476	485	487	493
Beginning Stocks	77	208	177	52	59	95	137	171	195	198	190	174	146
Domestic Supply	658	662	287	473	518	557	601	637	665	674	674	660	638
Consumption	424	440	435	449	454	461	467	476	478	485	496	499	504
Ending Stocks	208	177	52	59	95	137	171	195	198	190	174	146	111
Domestic Use	632	617	487	508	549	597	638	671	676	675	670	644	615
Net Trade	26	45	−200	−35	−31	−40	−37	−34	−12	−1	4	16	23

Table 83. Oceania Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	82	60	15	55	59	58	58	57	57	57	57	57	57
							(Metric Tons per Hectare)						
Yield	7.09	7.57	7.33	7.71	7.81	7.92	8.03	8.15	8.26	8.37	8.49	8.60	8.71
							(Thousand Metric Tons)						
Production	581	454	110	421	459	462	465	466	469	476	485	487	493
Beginning Stocks	77	208	177	52	58	94	135	170	194	197	189	173	144
Domestic Supply	658	662	287	473	517	556	600	636	664	673	673	659	637
Consumption	385	390	385	398	401	407	412	420	422	428	438	440	444
Ending Stocks	208	177	52	58	94	135	170	194	197	189	173	144	110
Domestic Use	593	567	437	456	495	542	582	615	619	616	611	584	554
Net Trade	65	95	−150	17	22	14	18	21	45	56	63	75	83

Table 84. Oceania Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	0	0	0	0	0	0	0	0	0	0	0	0	0
							(Metric Tons per Hectare)						
Yield	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
							(Thousand Metric Tons)						
Production	0	0	0	0	0	0	0	0	0	0	0	0	0
Beginning Stocks	0	0	0	0	1	1	1	1	1	1	1	1	1
Domestic Supply	0	0	0	0	1	1	1	1	1	1	1	1	1
Consumption	39	50	50	51	53	54	55	56	57	57	58	59	60
Ending Stocks	0	0	0	1	1	1	1	1	1	1	1	1	1
Domestic Use	39	50	50	52	54	55	56	57	58	58	59	60	61
Net Trade	−39	−50	−50	−52	−53	−54	−55	−56	−57	−57	−58	−59	−60

Table 85. World Total Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	162,351	162,599	162,758	163,016	162,716	162,714	162,698	162,675	162,627	162,645	162,742	162,765	162,830
							(Metric Tons per Hectare)						
Yield	3.02	3.04	3.05	3.02	3.04	3.06	3.08	3.09	3.11	3.12	3.14	3.15	3.17
							(Thousand Metric Tons)						
Production	490,937	495,069	495,867	492,638	494,904	497,872	500,611	503,463	505,651	508,103	510,908	513,219	515,746
Beginning Stocks	142,561	149,681	162,023	167,624	169,954	170,741	170,631	169,258	167,022	163,480	159,734	156,172	152,398
Domestic Supply	633,498	644,750	657,890	660,262	664,858	668,613	671,242	672,721	672,673	671,583	670,642	669,391	668,144
Consumption	477,853	482,482	487,774	493,320	497,140	500,989	505,108	508,903	512,466	515,161	517,821	520,387	522,612
Ending Stocks	149,681	162,023	167,624	169,954	170,741	170,631	169,258	167,022	163,480	159,734	156,172	152,398	148,963
Domestic Use	627,534	644,505	655,398	663,274	667,880	671,620	674,367	675,925	675,946	674,895	673,993	672,785	671,575
Residual	5,964	245	2,492	−3,012	−3,023	−3,007	−3,124	−3,204	−3,273	−3,312	−3,351	−3,394	−3,430

Table 86. World Aggregate of Countries with Individual AGRM Models—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	158,623	158,867	159,005	159,282	158,986	158,986	158,969	158,942	158,890	158,902	158,994	159,012	159,075
							(Metric Tons per Hectare)						
Yield	3.04	3.07	3.07	3.04	3.06	3.08	3.10	3.11	3.13	3.14	3.16	3.17	3.19
							(Thousand Metric Tons)						
Production	482,691	486,929	487,463	484,396	486,598	489,497	492,105	494,891	496,978	499,376	502,135	504,413	506,903
Beginning Stocks	141,959	149,127	161,430	167,059	169,221	170,021	169,927	168,550	166,313	162,772	159,029	155,469	151,696
Domestic Supply	624,650	636,056	648,893	651,455	655,819	659,518	662,032	663,441	663,291	662,148	661,163	659,882	658,599
Consumption	465,803	470,540	475,649	479,629	483,246	487,004	490,999	494,753	498,259	500,936	503,576	506,108	508,340
Ending Stocks	149,127	161,430	167,059	169,221	170,021	169,927	168,550	166,313	162,772	159,029	155,469	151,696	148,264
Domestic Use	614,930	631,970	642,708	648,850	653,266	656,930	659,550	661,067	661,031	659,965	659,045	657,803	656,604
Net Trade	9,720	4,086	6,185	2,605	2,553	2,588	2,482	2,374	2,260	2,183	2,118	2,079	1,995

Table 87. World Aggregate of Other Countries Modeled as a Group in AGRM—Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	3,728	3,732	3,753	3,734	3,729	3,728	3,729	3,733	3,737	3,742	3,748	3,752	3,756
							(Metric Tons per Hectare)						
Yield	2.21	2.18	2.24	2.21	2.23	2.25	2.28	2.30	2.32	2.33	2.34	2.35	2.35
							(Thousand Metric Tons)						
Production	8,246	8,140	8,404	8,242	8,307	8,375	8,506	8,572	8,673	8,727	8,774	8,806	8,843
Beginning Stocks	602	554	593	565	732	720	705	708	709	708	705	703	702
Domestic Supply	8,848	8,694	8,997	8,807	9,039	9,095	9,211	9,280	9,382	9,435	9,479	9,509	9,546
Consumption	12,050	11,942	12,125	13,691	13,894	13,985	14,109	14,150	14,207	14,225	14,245	14,279	14,272
Ending Stocks	554	593	565	732	720	705	708	709	708	705	703	702	699
Domestic Use	12,604	12,535	12,690	14,423	14,614	14,690	14,817	14,859	14,915	14,930	14,948	14,981	14,971
Net Trade	−3,756	−3,841	−3,693	−5,616	−5,575	−5,595	−5,606	−5,579	−5,533	−5,496	−5,469	−5,473	−5,425

Table 88. ECOWAS-7 Region Total Rice Supply and Use, 2016–2028*

	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
							(Thousand Hectares)						
Area Harvested	537	502	533	540	545	555	563	571	577	582	588	597	607
							(Metric Tons per Hectare)						
Yield	1.42	1.33	1.35	1.37	1.44	1.48	1.51	1.54	1.56	1.57	1.58	1.59	1.60
							(Thousand Metric Tons)						
Production	760	670	717	739	787	820	849	878	902	914	929	947	970
Beginning Stocks	35	69	70	90	67	72	76	79	81	84	86	88	90
Domestic Supply	795	739	787	829	855	892	925	957	983	998	1,015	1,035	1,060
Consumption	2,618	2,755	2,974	3,248	3,485	3,675	3,849	3,978	4,104	4,210	4,325	4,445	4,572
Ending Stocks	69	70	90	67	72	76	79	81	84	86	88	90	93
Domestic Use	2,687	2,825	3,064	3,315	3,557	3,751	3,928	4,059	4,188	4,296	4,414	4,536	4,664
Net Trade	−1,892	−2,086	−2,277	−2,486	−2,702	−2,859	−3,003	−3,102	−3,205	−3,298	−3,399	−3,501	−3,604

*. Benin, Burkina, Gambia, Guinea-Bissau, Niger, Togo, AND Cabo Verde are modeled as a group in AGRM

Table 89. ECOWAS-8 Region Total Rice Supply and Use, 2016–2028*

	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
							(Thousand Hectares)						
Area Harvested	7,509	7,933	7,930	7,964	8,008	8,067	8,127	8,170	8,203	8,258	8,310	8,364	8,416
							(Metric Tons per Hectare)						
Yield	1.46	1.46	1.47	1.49	1.51	1.54	1.56	1.59	1.61	1.63	1.66	1.70	1.72
							(Thousand Metric Tons)						
Production	10,945	11,572	11,664	11,828	12,083	12,420	12,717	12,997	13,242	13,498	13,820	14,189	14,511
Beginning Stocks	2,638	2,922	2,532	2,320	2,317	2,307	2,314	2,336	2,362	2,387	2,419	2,444	2,472
Domestic Supply	13,583	14,494	14,196	14,148	14,399	14,727	15,031	15,334	15,605	15,885	16,240	16,633	16,983
Consumption	17,606	18,717	19,196	19,910	20,446	21,002	21,710	22,434	23,103	23,756	24,410	25,121	25,799
Ending Stocks	2,922	2,532	2,320	2,317	2,307	2,314	2,336	2,362	2,387	2,419	2,444	2,472	2,499
Domestic Use	20,528	21,249	21,516	22,226	22,753	23,316	24,047	24,796	25,491	26,176	26,854	27,593	28,298
Net Trade	−6,945	−6,755	−7,320	−8,079	−8,354	−8,589	−9,016	−9,463	−9,886	−10,291	−10,614	−10,960	−11,315

**. Cote d'Ivoire, Ghana, Guinea, Liberia, Mali, Nigeria, Senegal, and Sierra Leone are modeled as individual countries in AGRM

Table 90. ECOWAS Region Total Rice Supply and Use, 2016–2028

	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
							(Thousand Hectares)						
Area Harvested	8,046	8,435	8,463	8,504	8,554	8,622	8,690	8,741	8,779	8,840	8,898	8,960	9,023
							(Metric Tons per Hectare)						
Yield	1.45	1.45	1.46	1.48	1.50	1.54	1.56	1.59	1.61	1.63	1.66	1.69	1.72
							(Thousand Metric Tons)						
Production	11,705	12,242	12,381	12,567	12,870	13,240	13,566	13,876	14,144	14,412	14,749	15,136	15,481
Beginning Stocks	2,673	2,991	2,602	2,410	2,384	2,379	2,389	2,415	2,444	2,471	2,505	2,532	2,562
Domestic Supply	14,378	15,233	14,983	14,977	15,254	15,619	15,956	16,291	16,588	16,883	17,255	17,668	18,043
Consumption	20,224	21,472	22,170	23,157	23,931	24,678	25,560	26,412	27,208	27,967	28,735	29,567	30,370
Ending Stocks	2,991	2,602	2,410	2,384	2,379	2,389	2,415	2,444	2,471	2,505	2,532	2,562	2,592
Domestic Use	23,215	24,074	24,580	25,541	26,310	27,067	27,975	28,856	29,679	30,472	31,267	32,129	32,962
Net Trade	−8,837	−8,841	−9,597	−10,564	−11,056	−11,448	−12,019	−12,564	−13,091	−13,589	−14,013	−14,461	−14,919

Table 91. Projected Milled Rice Yields per Hectare for Selected Countries and the World, 2016–2028

	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
	(Metric Tons per Hectare)												
Argentina	4.2	4.5	4.2	4.5	4.5	4.6	4.6	4.7	4.7	4.8	4.8	4.9	4.9
Australia	7.1	7.6	7.3	7.7	7.8	7.9	8.0	8.1	8.3	8.4	8.5	8.6	8.7
Bangladesh	2.9	2.9	3.0	3.0	3.0	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.3
Brazil	4.2	4.2	4.2	4.0	4.1	4.1	4.2	4.2	4.2	4.3	4.3	4.4	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
Cambodia	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.9	1.9	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
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
China	4.8	4.8	4.9	4.8	4.8	4.8	4.8	4.8	4.8	4.9	4.9	4.9	4.9
Colombia	3.3	3.1	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4
Egypt	5.6	5.6	6.1	6.2	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2
EU-28	4.7	4.6	4.8	4.9	4.9	4.9	4.9	5.0	5.0	5.0	5.0	5.0	5.1
Ghana	1.7	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0
Guinea	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6
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
India	2.5	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7
Indonesia	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Iran	2.7	2.7	2.7	2.8	2.8	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.1
Iraq	2.2	2.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3
Cote d'Ivoire	1.5	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.9	1.9	1.9
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	5.1
Kenya	2.7	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.9	2.9	2.9	2.9
Lao PDR	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.3
Liberia	0.7	0.8	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9
Malaysia	2.6	2.6	2.6	2.7	2.7	2.8	2.8	2.8	2.9	2.9	2.9	2.9	3.0
Mali	2.2	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.5	2.5
Mexico	4.4	4.5	4.5	4.2	4.2	4.2	4.2	4.2	4.2	4.3	4.3	4.3	4.3
Mozambique	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Myanmar	1.8	1.9	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.1
Nigeria	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.5
Pakistan	2.5	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9
Philippines	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	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
Senegal	2.3	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.5	2.6	2.6
Sierra Leone	1.0	1.3	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.5	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
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
South Korea	5.4	5.3	5.2	5.4	5.4	5.4	5.4	5.4	5.5	5.5	5.5	5.5	5.5
Taiwan	4.4	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Tanzania	1.9	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.9	1.9	2.0	2.0	2.0
Thailand	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1
Turkey	5.1	5.3	5.4	5.5	5.5	5.6	5.6	5.7	5.8	5.8	5.9	5.9	6.0

Table 92. 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
	(Metric Tons per Hectare)												
U.S.	5.7	5.9	6.0	6.1	6.1	6.2	6.2	6.3	6.4	6.5	6.5	6.6	6.7
Uruguay	6.0	6.0	5.9	5.9	5.9	6.0	6.0	6.1	6.2	6.3	6.3	6.4	6.5
Vietnam	3.6	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.9	3.9	3.9	3.9
Ecowas 7	1.4	1.3	1.3	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6
Madagascar	1.7	1.4	1.8	1.7	1.7	1.8	1.8	1.8	1.8	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
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
Rwanda	3.6	3.6	3.6	3.7	3.7	3.8	3.8	3.9	3.9	3.9	4.0	4.0	4.1
Uganda	1.6	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	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4
Costa Rica	2.8	2.2	2.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Dominican R.	3.4	3.4	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.6	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
Honduras	2.7	2.7	2.7	2.8	2.8	2.9	3.0	3.1	3.1	3.2	3.3	3.4	3.5
Nicaragua	2.8	2.8	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1
Panama	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.7	2.7	2.7	2.8	2.8
Chile	3.9	4.1	4.3	4.3	4.3	4.4	4.5	4.5	4.6	4.6	4.7	4.7	4.8
Paraguay	4.4	4.4	4.3	4.4	4.4	4.5	4.6	4.6	4.7	4.7	4.8	4.8	4.9
Peru	5.2	5.0	5.1	5.1	5.2	5.3	5.3	5.4	5.4	5.5	5.6	5.6	5.7
Guyana	3.6	3.7	3.6	3.6	3.7	3.7	3.8	3.8	3.8	3.9	3.9	4.0	4.0
Haiti	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Venezuela	2.4	2.0	2.0	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2
Sri Lanka	3.0	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1
Rest of World	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
World	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.2

Table 92. Projected per Capita Rice Use for Selected Countries and the World, 2016–2028

	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
						(Kilograms)							
Argentina	12.0	11.7	11.6	11.8	11.8	11.9	11.9	12.0	12.0	12.0	12.0	12.0	12.0
Australia	16.0	16.0	15.5	15.9	15.8	15.8	15.9	16.0	15.9	15.9	16.1	16.0	16.0
Bangladesh	214.8	213.8	211.6	212.3	212.9	213.3	213.4	213.3	213.2	213.1	213.0	212.8	212.6
Brazil	38.5	37.3	36.8	38.1	38.2	38.2	38.3	38.3	38.3	38.3	38.2	38.1	38.0
Brunei	99.2	119.0	117.5	117.8	118.3	118.9	119.6	120.1	121.1	122.0	122.6	123.0	123.2
Cambodia	253.8	259.3	258.5	257.7	256.2	255.1	255.3	255.3	255.5	255.8	257.1	257.2	257.2
Cameroon	34.2	35.2	36.3	37.5	37.7	38.1	38.6	38.7	38.9	39.0	39.0	39.2	39.1
Canada	9.8	9.9	10.1	10.7	10.8	10.9	11.0	11.1	11.1	11.1	11.2	11.2	11.3
China	101.0	100.5	100.5	100.3	100.1	99.9	99.8	99.7	99.6	99.4	99.3	99.2	99.1
Food	*85.1*	*84.5*	*84.4*	*84.3*	*84.1*	*83.8*	*83.6*	*83.4*	*83.3*	*83.1*	*82.8*	*82.7*	*82.5*
Feed	*9.1*	*9.2*	*9.3*	*9.5*	*9.6*	*9.7*	*9.9*	*10.0*	*10.1*	*10.2*	*10.3*	*10.4*	*10.5*
Other	*6.8*	*6.8*	*6.7*	*6.5*	*6.4*	*6.4*	*6.3*	*6.3*	*6.2*	*6.2*	*6.2*	*6.1*	*6.1*
Colombia	36.0	36.7	35.5	38.0	38.3	38.5	38.5	38.8	39.0	38.7	38.4	38.3	38.1
Cote d'Ivoire	109.7	111.1	114.4	115.2	115.7	116.2	118.0	119.2	120.1	122.2	123.3	124.1	125.9
Egypt	44.9	43.1	41.3	41.5	41.5	41.6	41.8	41.8	41.8	41.8	41.7	41.6	41.4
EU-28	8.1	8.3	8.4	8.5	8.5	8.6	8.7	8.8	8.9	8.9	9.0	9.0	9.1
Ghana	37.2	38.2	38.2	38.5	38.7	39.1	39.4	39.7	40.0	40.1	40.4	40.5	40.7
Guinea	161.6	169.8	173.8	182.2	185.2	187.3	192.6	197.2	198.8	199.8	201.1	205.8	209.9
Hong Kong	45.7	44.3	46.4	47.3	47.6	48.0	48.5	49.0	49.4	49.6	49.9	50.3	50.5
India	72.3	73.7	73.9	73.4	73.3	73.3	73.1	73.0	72.9	72.5	72.2	71.8	71.4
Indonesia	144.8	144.3	142.8	143.9	143.5	143.2	143.1	142.6	142.1	141.4	140.8	139.7	138.5
Iran	38.6	38.8	38.4	40.0	40.2	40.4	40.7	40.3	40.4	40.5	40.7	40.9	41.1
Iraq	31.6	34.0	33.7	34.4	34.5	34.5	34.3	34.2	34.1	33.9	33.8	33.8	33.7
Japan	68.3	67.9	67.6	66.3	65.4	64.9	64.6	64.5	64.2	64.0	63.9	63.7	63.6
Kenya	13.8	15.1	16.1	16.8	17.3	17.8	18.2	18.6	19.1	19.2	19.2	19.3	19.2
Lao PDR	307.8	306.2	308.9	308.2	308.1	307.9	308.5	308.8	310.4	311.3	311.7	312.7	312.9
Liberia	98.7	108.1	111.9	113.9	116.9	119.7	122.8	124.7	127.5	127.8	127.9	128.9	130.5
Malaysia	88.2	87.0	85.8	87.7	87.6	87.2	86.8	86.5	86.1	85.7	85.3	84.9	84.6
Mali	108.4	113.3	115.1	117.4	118.5	119.0	120.2	122.5	124.0	124.7	125.4	126.1	125.3
Mexico	7.2	6.7	7.2	7.2	7.2	7.1	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Mozambique	32.2	33.2	32.9	34.6	35.1	35.6	35.9	36.5	36.9	36.9	36.8	36.7	36.6
Myanmar	189.1	189.2	189.4	190.1	189.3	188.8	189.1	189.2	188.9	188.7	188.6	188.7	188.7
Nigeria	36.0	37.2	36.8	36.2	35.8	35.5	35.5	35.5	35.5	35.5	35.6	35.6	35.5
Pakistan	16.0	16.2	16.2	16.2	16.0	15.6	15.3	15.2	15.1	15.0	15.0	14.9	14.8
Philippines	124.9	126.3	128.2	128.8	127.6	127.0	127.5	127.5	127.1	126.7	126.3	126.1	125.7
Saudi Arabia	42.5	39.9	40.3	40.9	41.4	42.0	42.6	43.2	43.7	44.2	44.7	45.2	45.7
Senegal	113.5	115.1	115.1	116.9	118.5	120.2	121.2	122.2	122.7	123.0	123.3	123.9	124.0
Sierra Leone	148.9	163.0	149.7	165.2	165.0	164.9	165.5	166.0	166.5	167.1	167.7	168.5	168.8
Singapore	57.4	56.9	57.0	56.6	56.5	56.3	55.4	55.4	55.3	54.8	54.2	53.8	53.3
South Africa	15.4	15.0	15.0	15.7	15.9	16.2	16.1	16.3	16.0	16.1	16.2	16.4	16.7
South Korea	91.6	95.8	91.3	88.5	86.0	84.0	83.3	81.6	81.4	79.6	78.9	77.2	77.0
Taiwan	48.4	48.7	50.6	50.6	50.4	50.4	50.3	50.3	50.3	49.9	49.6	49.4	48.4

Table 93. 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
	(Kilograms)												
Tanzania	44.3	39.5	37.7	41.4	42.9	43.7	44.3	44.8	45.5	45.8	46.1	46.2	46.3
Thailand	174.3	153.5	151.8	154.3	154.3	154.1	154.1	153.8	153.8	153.6	153.5	153.4	153.3
Turkey	9.8	9.9	9.6	9.6	9.8	9.8	9.7	9.7	9.7	9.8	9.8	9.8	9.8
United States	13.1	13.1	13.0	13.1	13.1	13.1	13.1	13.2	13.2	13.2	13.2	13.2	13.2
Uruguay	16.0	18.8	18.7	18.8	18.2	18.2	18.2	18.3	18.3	18.1	18.0	17.9	17.7
Vietnam	232.6	230.3	230.1	230.1	227.1	226.8	225.3	224.8	223.0	221.0	218.5	217.2	215.6
Ecowas 7	42.1	43.0	44.9	47.6	49.5	50.7	51.5	51.6	51.7	51.5	51.3	51.2	51.2
Madagascar	111.3	104.0	116.2	117.1	117.4	118.1	119.6	120.1	122.1	122.2	122.3	122.3	122.3
Malawi	5.4	5.3	5.1	5.6	5.6	5.7	5.7	5.7	5.8	5.8	5.8	5.8	5.9
Zambia	2.4	2.3	2.3	2.3	2.3	2.4	2.5	2.5	2.6	2.6	2.6	2.7	2.7
Rwanda	8.2	8.0	7.8	13.7	14.6	15.6	16.4	17.1	17.7	18.2	18.5	19.0	19.2
Uganda	5.8	5.6	5.5	6.0	6.2	6.3	6.4	6.4	6.5	6.6	6.6	6.6	6.7
Cuba	74.9	66.3	71.8	72.5	73.6	74.5	75.7	77.1	78.4	79.0	79.4	80.3	81.0
Costa Rica	53.5	51.0	52.1	52.4	52.6	52.8	53.0	53.2	53.4	53.4	53.5	53.6	53.6
Dominican R.	52.1	51.5	51.0	52.3	52.3	52.2	52.4	52.4	52.4	52.5	52.9	52.8	52.6
Guatemala	7.3	6.6	7.2	7.2	7.3	7.3	7.4	7.5	7.5	7.6	7.6	7.7	7.8
Honduras	23.6	22.7	22.8	25.7	27.7	28.6	29.7	30.4	31.0	31.5	32.0	32.5	33.1
Nicaragua	59.4	57.1	59.7	60.7	60.7	61.3	62.0	62.7	63.4	63.9	64.4	65.0	65.5
Panama	64.5	68.3	69.7	69.4	68.8	68.2	67.6	67.1	66.7	66.1	65.5	64.9	64.4
Chile	13.1	14.4	15.5	15.7	15.9	16.1	16.3	16.5	16.7	17.0	17.2	17.5	17.8
Paraguay	10.1	10.3	9.9	9.7	9.5	9.3	9.0	9.0	8.8	8.4	8.0	7.8	7.4
Peru	75.5	75.3	74.7	75.1	75.3	75.7	75.9	76.1	76.3	76.5	76.7	77.0	77.4
Guyana	219.8	231.4	230.1	240.1	247.3	254.0	261.2	267.5	275.5	281.9	285.4	288.9	290.4
Haiti	48.9	50.1	54.9	55.5	55.5	55.6	55.7	56.1	56.4	56.6	56.9	57.2	57.4
Venezuela	20.0	19.4	22.2	22.3	22.4	22.5	22.7	22.8	23.0	23.3	23.7	24.2	24.6
Sri Lanka	144.2	136.5	138.4	139.1	140.6	141.0	141.7	142.5	143.4	143.9	144.1	144.2	144.5
World	64.5	64.4	64.4	64.4	64.3	64.1	64.0	63.9	63.7	63.5	63.2	63.0	62.7

Table 93. Total World Rice Trade, 2016–2028

	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
EXPORTERS						(Thousand Metric Tons)							
United States	3,645	2,763	3,175	3,465	3,475	3,471	3,507	3,570	3,644	3,722	3,785	3,863	3,950
Thailand	11,615	11,075	10,000	10,652	11,303	11,471	11,789	12,035	12,308	12,591	12,897	13,037	13,121
Pakistan	3,516	4,300	4,250	4,115	4,174	4,228	4,283	4,277	4,296	4,300	4,313	4,320	4,374
Myanmar	3,350	2,800	2,800	2,829	2,985	3,116	3,232	3,324	3,431	3,495	3,554	3,653	3,717
Vietnam	6,488	6,590	7,000	7,015	6,969	6,999	7,044	7,076	7,163	7,244	7,323	7,335	7,330
China	805	1,386	2,200	1,886	1,931	2,024	2,119	2,213	2,404	2,512	2,618	2,659	2,691
India	11,772	12,200	12,500	12,230	12,229	12,281	12,499	12,652	12,774	12,848	12,863	12,908	12,943
Cambodia	1,150	1,200	1,000	1,221	1,205	1,249	1,351	1,457	1,508	1,626	1,686	1,832	1,940
Lao PDR	−82	−100	−100	−157	−135	−114	−88	−63	−50	−31	−6	17	49
Australia	226	250	50	215	201	165	171	177	202	215	223	237	247
Egypt	100	50	20	20	20	20	20	20	20	20	20	20	20
Turkey	57	48	25	25	25	25	25	25	25	25	25	25	25
EU-28	319	347	350	377	375	372	374	373	374	390	392	394	398
Brazil	830	1,150	850	943	981	925	950	952	942	948	947	946	947
Cote d'Ivoire	70	80	90	90	90	90	90	90	90	90	90	90	90
Senegal	10	10	10	10	10	10	10	10	10	10	10	10	10
Guinea	80	80	80	80	80	80	80	80	80	80	80	80	80
Tanzania	40	40	50	50	50	50	50	50	50	50	50	50	50
Japan	50	60	70	70	70	70	70	70	70	70	70	70	70
Argentina	343	340	360	407	362	346	349	354	363	377	386	393	401
Uruguay	950	850	800	825	855	865	870	873	884	905	927	943	953
Paraguay	500	653	650	647	668	693	717	746	769	788	819	858	893
Peru	130	80	50	49	50	51	52	52	53	55	57	59	61
Guyana	431	455	480	475	512	535	556	578	596	618	643	668	695
Venezuela	40	20	0	0	0	0	0	0	0	0	0	0	0
Sri Lanka	0	5	0	5	5	5	5	5	5	5	5	5	5
ROW and Residual	815	923	962	1,091	1,060	1,053	1,020	996	984	964	939	916	884
Total Exports	**47,250**	**47,655**	**47,722**	**48,636**	**49,550**	**50,080**	**51,144**	**51,992**	**52,994**	**53,917**	**54,717**	**55,387**	**55,944**

Table 94. Continued.

IMPORTERS	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
						(Thousand Metric Tons)							
United States	745	854	905	805	860	878	876	880	889	885	876	867	863
Thailand	250	250	250	250	250	250	250	250	250	250	250	250	250
Pakistan	10	0	0	3	1	1	2	2	2	2	2	2	2
Vietnam	500	400	400	400	400	400	400	400	400	400	400	400	400
China	5,300	5,500	4,500	5,031	5,143	5,158	5,176	5,194	5,212	5,224	5,234	5,247	5,256
Hong Kong	334	326	345	354	359	365	371	376	381	385	390	395	399
Egypt	102	87	700	1,010	1,050	1,050	1,025	1,015	1,010	1,010	1,010	1,000	1,000
Japan	709	685	685	682	682	682	682	682	682	682	682	682	682
Bangladesh	75	3,200	600	1,157	1,077	995	912	950	1,100	1,312	1,463	1,563	1,600
Indonesia	350	2,300	800	1,353	1,521	1,605	1,758	1,775	1,893	1,943	2,027	1,989	1,959
Iraq	1,070	1,150	1,300	1,320	1,342	1,356	1,372	1,391	1,417	1,444	1,478	1,517	1,558
Iran	1,600	1,300	1,400	1,577	1,619	1,650	1,693	1,659	1,678	1,689	1,704	1,719	1,731
Malaysia	900	900	1,000	1,053	1,032	1,017	1,006	1,000	992	985	984	977	969
Philippines	1,100	1,300	2,300	1,621	1,538	1,494	1,758	1,853	1,865	1,877	1,952	2,004	2,025
Saudi Arabia	1,195	1,250	1,300	1,329	1,317	1,325	1,335	1,346	1,359	1,379	1,404	1,438	1,473
EU-28	1,841	1,997	2,000	1,997	1,999	2,006	2,012	2,026	2,043	2,052	2,063	2,073	2,080
Singapore	323	325	330	332	335	337	335	337	339	337	336	336	335
Brunei	41	50	50	51	52	52	53	54	55	56	57	58	58
Turkey	280	350	250	273	281	276	268	262	262	260	260	255	253
South Korea	411	400	410	409	409	409	409	409	409	409	409	409	409
Taiwan	113	120	120	126	126	126	126	126	126	126	126	126	126
Australia	161	155	200	198	179	152	153	156	158	159	160	162	164
Brazil	614	575	850	809	727	603	519	437	383	351	281	210	161
Mexico	870	803	880	824	871	875	878	886	896	905	911	920	926
Canada	362	370	380	399	408	419	426	434	441	445	451	458	463
Cote d'Ivoire	1,300	1,370	1,500	1,546	1,636	1,679	1,746	1,809	1,879	1,951	1,995	2,051	2,149
Nigeria	2,500	2,000	2,200	2,420	2,561	2,649	2,842	3,010	3,176	3,367	3,467	3,527	3,615
South Africa	1,005	1,000	1,000	1,061	1,086	1,114	1,121	1,142	1,129	1,151	1,165	1,188	1,211
Senegal	1,100	1,150	1,250	1,339	1,326	1,391	1,438	1,500	1,551	1,600	1,657	1,718	1,766
Ghana	600	700	680	713	704	718	728	735	740	733	745	738	737
Cameroon	575	625	675	732	735	747	771	797	825	848	870	899	925

Table 94. 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
Mozambique	715	725	750	833	872	915	953	1,006	1,050	1,077	1,106	1,134	1,161
Guinea	725	775	800	958	1,025	1,052	1,131	1,217	1,275	1,325	1,381	1,490	1,589
Kenya	650	675	750	807	852	895	939	986	1,043	1,067	1,087	1,123	1,143
Tanzania	240	260	230	479	590	641	672	696	727	741	727	694	667
Sierra Leone	370	350	400	485	444	429	414	407	400	393	392	392	382
Mali	200	230	300	387	430	426	450	506	568	619	668	721	739
Liberia	310	350	370	410	408	426	446	460	476	484	490	502	517
Colombia	149	120	140	193	200	203	204	207	212	202	192	193	200
Ecowas 7	1,892	2,086	2,277	2,486	2,702	2,859	3,003	3,102	3,205	3,298	3,399	3,501	3,604
Madagascar	330	675	300	618	627	633	633	647	633	636	641	642	640
Malawi	15	15	15	25	26	29	31	34	36	38	40	43	45
Zambia	10	10	10	10	9	10	11	12	12	12	12	13	12
Rwanda	40	40	40	117	127	142	154	166	176	185	192	200	205
Uganda	120	120	125	154	168	183	195	206	219	230	234	235	240
Cuba	524	499	500	487	491	483	484	490	498	501	503	510	514
Costa Rica	162	138	160	150	142	142	143	145	148	150	151	152	153
Dominican R.	41	18	30	1	55	64	77	84	89	90	93	86	79
Guatemala	97	89	100	104	106	109	112	116	119	122	125	128	131
Honduras	130	108	150	183	204	214	228	237	245	253	259	266	273
Nicaragua	95	72	85	66	84	87	88	90	92	93	93	94	94
Panama	66	80	85	38	72	70	68	69	69	67	65	63	60
Chile	136	161	160	142	165	168	170	172	174	177	181	186	190
Paraguay	2	1	2	2	2	2	2	2	2	2	2	2	2
Peru	310	384	300	378	376	366	357	351	346	341	334	323	310
Haiti	470	495	545	551	551	557	563	573	583	592	601	610	619
Venezuela	350	396	550	533	558	566	577	586	599	617	635	656	681
Sri Lanka	550	550	300	436	264	237	226	218	213	197	179	158	141
ROW and Residual	12,215	6,741	8,988	6,432	6,375	6,394	6,371	6,318	6,242	6,188	6,127	6,095	6,010
Total Imports	**47,250**	**47,655**	**47,722**	**48,636**	**49,550**	**50,080**	**51,144**	**51,992**	**52,994**	**53,917**	**54,717**	**55,387**	**55,944**

Table 94. Total World Long Grain Rice Trade, 2016–2028

	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
EXPORTERS							(Thousand Metric Tons)						
United States	2,432	2,010	2,159	2,287	2,333	2,348	2,391	2,448	2,526	2,602	2,659	2,735	2,828
Thailand	11,615	11,075	10,000	10,652	11,303	11,471	11,789	12,035	12,308	12,591	12,897	13,037	13,121
Pakistan	3,516	4,300	4,250	4,115	4,174	4,228	4,283	4,277	4,296	4,300	4,313	4,320	4,374
Myanmar	3,350	2,800	2,800	2,829	2,985	3,116	3,232	3,324	3,431	3,495	3,554	3,653	3,717
Vietnam	6,488	6,590	7,000	7,015	6,969	6,999	7,044	7,076	7,163	7,244	7,323	7,335	7,330
India	11,772	12,200	12,500	12,230	12,229	12,281	12,499	12,652	12,774	12,848	12,863	12,908	12,943
Cambodia	1,150	1,200	1,000	1,221	1,205	1,249	1,351	1,457	1,508	1,626	1,686	1,832	1,940
Laos	50	75	50	63	56	59	58	59	58	58	58	58	58
EU-28	134	142	115	94	96	97	98	98	99	102	104	106	109
Argentina	343	340	360	407	362	346	349	354	363	377	386	393	401
Uruguay	950	850	800	825	855	865	870	873	884	905	927	943	953
China	545	1,036	1,725	1,259	1,348	1,440	1,542	1,627	1,796	1,874	1,945	1,952	1,954
Paraguay	500	653	650	647	668	693	717	746	769	788	819	858	893
Peru	130	80	50	49	50	51	52	52	53	55	57	59	61
Guyana	431	455	480	475	512	535	556	578	596	618	643	668	695
Venezuela	40	20	0	0	0	0	0	0	0	0	0	0	0
Sri Lanka	0	5	0	5	5	5	5	5	5	5	5	5	5
Residual	1,770	2,157	1,917	2,134	2,169	2,121	2,140	2,141	2,133	2,149	2,149	2,150	2,153
Total	**45,216**	**45,988**	**45,856**	**46,306**	**47,320**	**47,903**	**48,975**	**49,802**	**50,761**	**51,637**	**52,390**	**53,011**	**53,535**
IMPORTERS							(Thousand Metric Tons)						
United States	745	854	905	805	860	878	876	880	889	885	876	867	863
Thailand	250	250	250	250	250	250	250	250	250	250	250	250	250
Vietnam	500	400	400	400	400	400	400	400	400	400	400	400	400
China	5,300	5,500	4,500	5,031	5,143	5,158	5,176	5,194	5,212	5,224	5,234	5,247	5,256
Hong Kong	334	326	345	354	359	365	371	376	381	385	390	395	399
Indonesia	350	2,300	800	1,353	1,521	1,605	1,758	1,775	1,893	1,943	2,027	1,989	1,959
Malaysia	900	900	1,000	1,053	1,032	1,017	1,006	1,000	992	985	984	977	969
Philippines	1,100	1,300	2,300	1,621	1,538	1,494	1,758	1,853	1,865	1,877	1,952	2,004	2,025
Bangladesh	75	3,200	600	1,157	1,077	995	912	950	1,100	1,312	1,463	1,563	1,600
Iraq	1,070	1,150	1,300	1,320	1,342	1,356	1,372	1,391	1,417	1,444	1,478	1,517	1,558

Table 95. 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
IMPORTERS							(Thousand Metric Tons)						
Iran	1,600	1,300	1,400	1,577	1,619	1,650	1,693	1,659	1,678	1,689	1,704	1,719	1,731
Saudi Arabia	1,195	1,250	1,300	1,329	1,317	1,325	1,335	1,346	1,359	1,379	1,404	1,438	1,473
EU-28	1,668	1,837	1,795	1,793	1,778	1,763	1,771	1,790	1,807	1,813	1,816	1,817	1,814
Cambodia	20	20	20	20	20	20	20	20	20	20	20	20	20
Laos	82	100	100	157	135	114	88	63	50	31	6	−17	−49
Singapore	323	325	330	332	335	337	335	337	339	337	336	336	335
Brunei	41	50	50	51	52	52	53	54	55	56	57	58	58
Australia	161	155	200	198	179	152	153	156	158	159	160	162	164
Brazil	614	575	850	809	727	603	519	437	383	351	281	210	161
Mexico	870	803	880	824	871	875	878	886	896	905	911	920	926
Canada	362	370	380	399	408	419	426	434	441	445	451	458	463
Cote d'Ivoire	1,300	1,370	1,500	1,546	1,636	1,679	1,746	1,809	1,879	1,951	1,995	2,051	2,149
Nigeria	2,500	2,000	2,200	2,420	2,561	2,649	2,842	3,010	3,176	3,367	3,467	3,527	3,615
Senegal	1,100	1,150	1,250	1,339	1,326	1,391	1,438	1,500	1,551	1,600	1,657	1,718	1,766
Ghana	600	700	680	713	704	718	728	735	740	733	745	738	737
Cameroon	575	625	675	732	735	747	771	797	825	848	870	899	925
Mozambique	715	725	750	833	872	915	953	1,006	1,050	1,077	1,106	1,134	1,161
Guinea	725	775	800	958	1,025	1,052	1,131	1,217	1,275	1,325	1,381	1,490	1,589
Kenya	650	675	750	807	852	895	939	986	1,043	1,067	1,087	1,123	1,143
Tanzania	240	260	230	479	590	641	672	696	727	741	727	694	667
Sierra Leone	370	350	400	485	444	429	414	407	400	393	392	392	382
Mali	200	230	300	387	430	426	450	506	568	619	668	721	739
South Africa	1,005	1,000	1,000	1,061	1,086	1,114	1,121	1,142	1,129	1,151	1,165	1,188	1,211
Liberia	310	350	370	410	408	426	446	460	476	484	490	502	517
Colombia	149	120	140	193	200	203	204	207	212	202	192	193	200
ECOWAS-7	1,892	2,086	2,277	2,486	2,702	2,859	3,003	3,102	3,205	3,298	3,399	3,501	3,604
Madagascar	180	330	675	300	618	627	633	633	647	633	636	641	642
Malawi	15	15	15	15	25	26	29	31	34	36	38	40	43
Zambia	10	10	10	10	10	9	10	11	12	12	12	12	13
Rwanda	40	40	40	40	117	127	142	154	166	176	185	192	200
Uganda	120	120	120	125	154	168	183	195	206	219	230	234	235

Table 95. 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
IMPORTERS							(Thousand Metric Tons)						
Cuba	524	499	500	487	491	483	484	490	498	501	503	510	514
Costa Rica	162	138	160	150	142	142	143	145	148	150	151	152	153
Dominican R.	41	18	30	1	55	64	77	84	89	90	93	86	79
Guatemala	97	89	100	104	106	109	112	116	119	122	125	128	131
Honduras	130	108	150	183	204	214	228	237	245	253	259	266	273
Nicaragua	95	72	85	66	84	87	88	90	92	93	93	94	94
Panama	66	80	85	38	72	70	68	69	69	67	65	63	60
Chile	136	161	160	142	165	168	170	172	174	177	181	186	190
Paraguay	2	1	2	2	2	2	2	2	2	2	2	2	2
Peru	310	384	300	378	376	366	357	351	346	341	334	323	310
Haiti	470	495	545	551	551	557	563	573	583	592	601	610	619
Venezuela	350	396	550	533	558	566	577	586	599	617	635	656	681
Sri Lanka	550	550	300	436	264	237	226	218	213	197	179	158	141
Egypt	0	0	300	910	950	950	925	915	910	910	910	900	900
Rest of World	11,877	6,756	9,073	5,722	5,809	5,919	5,922	5,861	5,756	5,675	5,599	5,545	5,468
Total	**45,216**	**45,988**	**45,556**	**45,396**	**46,370**	**46,953**	**48,050**	**48,887**	**49,851**	**50,727**	**51,480**	**52,111**	**52,635**

Table 95. Total World Medium Grain Rice Trade, 2016–2028

	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
EXPORTERS							(Thousand Metric Tons)						
United States	1,213	753	1,016	1,179	1,142	1,123	1,116	1,122	1,118	1,121	1,125	1,128	1,122
Australia	226	250	50	215	201	165	171	177	202	215	223	237	247
Egypt	100	50	20	20	20	20	20	20	20	20	20	20	20
EU-28	185	205	235	220	214	214	215	215	215	216	215	215	213
Japan	50	60	70	70	70	70	70	70	70	70	70	70	70
China	260	350	475	627	582	584	577	587	608	637	673	706	737
Total	**2,034**	**1,667**	**1,866**	**2,330**	**2,230**	**2,176**	**2,169**	**2,190**	**2,233**	**2,280**	**2,327**	**2,376**	**2,409**
IMPORTERS							(Thousand Metric Tons)						
United States	102	111	159	108	120	125	125	131	136	139	135	132	133
Turkey	280	350	250	273	281	276	268	262	262	260	260	255	253
Japan	709	685	685	682	682	682	682	682	682	682	682	682	682
South Korea	411	400	410	409	409	409	409	409	409	409	409	409	409
Taiwan	113	120	120	126	126	126	126	126	126	126	126	126	126
EU-28	173	160	205	204	221	242	241	236	236	239	247	256	267
Australia	161	155	200	198	179	152	153	156	158	159	160	162	164
Egypt	102	87	100	100	100	100	100	100	100	100	100	100	100
Rest of World	−16	−401	−263	231	112	66	64	89	126	166	208	254	276
Total	**2,034**	**1,667**	**1,866**	**2,330**	**2,230**	**2,176**	**2,169**	**2,190**	**2,233**	**2,280**	**2,327**	**2,376**	**2,409**

Table 96. World Rice Prices and Price Relationship, 2016–2028

	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
Long Grain Rice, High Quality						(U.S. Dollars per Metric Ton)							
International Reference Price	394	418	396	385	389	392	397	400	404	418	435	446	461
Real International Reference Price (2015/17=100)	394	407	376	359	353	348	344	339	335	339	345	347	350
Thai 5% FOB*	384	403	381	360	374	378	383	386	394	413	429	439	459
Thai 100% FOB	394	418	396	385	389	392	397	400	404	418	435	446	461
US No. 2, FOB Houston	489	599	563	549	554	556	560	560	562	566	567	568	569
US No. 2 FOB - Int Ref Price	95	181	167	163	166	164	162	160	158	148	132	123	109
Long Grain Rice, Low Quality													
Thai 35% FOB	323	347	351	330	344	348	353	356	364	376	385	391	401
US Wheat No. 2, FOB Gulf	170	186	212	217	214	215	211	211	210	210	209	209	208
Corn, FOB price	156	160	165	177	175	177	175	174	173	173	174	175	174
Soybean, FOB price	359	350	318	331	342	341	342	340	340	339	341	342	341
						(Price Ratio)							
Wheat/Thai35%	0.53	0.54	0.60	0.66	0.62	0.62	0.60	0.59	0.58	0.56	0.54	0.53	0.52
Rice/Wheat	2.88	3.22	2.66	2.53	2.59	2.59	2.65	2.66	2.68	2.70	2.71	2.72	2.74
Rice/Corn	3.14	3.74	3.42	3.10	3.16	3.15	3.20	3.21	3.25	3.26	3.26	3.25	3.28
Rice/Soybean	1.36	1.71	1.77	1.66	1.62	1.63	1.64	1.65	1.65	1.67	1.67	1.66	1.67
Medium Grain Rice						(U.S. Dollars per Metric Ton)							
U.S. No.2 MG Rice FOB CA	611	868	873	923	885	874	873	868	863	862	858	851	842
MG FOB CA - LG FOB Houston	122	269	310	374	331	318	313	308	301	296	291	282	272

Table 97. Detailed United States Rice Supply and Use (English Units), 2016–2028

	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
SUPPLY AND DISTRIBUTION							(Pounds per Acre)						
Yield (rough basis)	7,237	7,507	7,692	7,721	7,795	7,874	7,957	8,046	8,136	8,226	8,311	8,394	8,477
							(Thousand Acres)						
Program Area/Contract Area	4,760	4,760	4,760	4,760	4,760	4,760	4,760	4,760	4,760	4,760	4,760	4,760	4,760
Total Harvested Area	3,097	2,374	2,915	2,831	2,785	2,816	2,855	2,866	2,867	2,856	2,840	2,827	2,810
							(Million Hundredweight)						
Supply (rough basis)	294.1	251.1	282.1	291.0	289.7	292.1	299.4	307.7	315.5	320.9	323.6	324.5	322.9
Production	224.1	178.2	224.2	218.6	217.1	221.7	227.2	230.6	233.3	234.9	236.0	237.3	238.2
Beginning Stocks	46.5	46.0	29.4	47.1	45.5	42.7	44.6	49.4	54.2	58.2	60.0	59.9	57.5
Imports	23.5	26.9	28.5	25.4	27.1	27.7	27.6	27.7	28.0	27.9	27.6	27.3	27.2
Domestic use (rough basis)	133.2	134.8	135.0	136.4	137.5	138.2	139.5	141.1	142.5	143.7	144.5	145.3	146.4
Food	106.4	108.4	109.2	110.3	111.3	112.8	114.6	116.3	118.0	119.8	121.6	123.5	125.3
Seed	2.0	2.2	2.2	2.5	2.2	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3
Brewing	19.5	19.2	19.4	19.5	19.5	19.6	19.7	19.7	19.8	19.9	19.9	20.0	20.1
Residual	5.3	5.1	4.1	4.1	4.4	3.4	2.9	2.6	2.3	1.6	0.6	−0.5	−1.3
Exports	114.8	87.0	100.0	109.1	109.4	109.3	110.5	112.4	114.8	117.2	119.2	121.7	124.4
Total Use	248.0	221.8	235.0	245.5	247.0	247.5	250.0	253.5	257.3	260.9	263.7	267.0	270.8
Ending Stocks	46.0	29.4	47.1	45.5	42.7	44.6	49.4	54.2	58.2	60.0	59.9	57.5	52.1
Stock to Use ratio (STU)	0.19	0.13	0.20	0.19	0.17	0.18	0.20	0.21	0.23	0.23	0.23	0.22	0.19
PRICES							(U.S. Dollars per Hundredweight)						
Loan Rate	6.5	6.5	6.5	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Season Avg. Farm Price	10.4	12.7	12.1	12.5	12.8	12.8	12.7	12.7	12.7	12.8	12.9	13.0	13.1
Long Grain Farm Price	9.6	11.5	10.7	11.1	11.2	11.3	11.3	11.4	11.5	11.6	11.8	12.0	12.2
Medium Grain Farm Price	13.1	16.2	16.5	17.1	16.8	16.6	16.6	16.4	16.3	16.2	16.2	16.2	16.1
Target Price	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Export Price, FOB Houston (U.S. No. 2)	22.2	27.2	25.5	24.9	25.1	25.2	25.4	25.4	25.5	25.7	25.7	25.8	25.8
Medium Grain Price, FOB CA (U.S. No. 2)	27.7	39.4	39.6	41.9	40.2	39.7	39.6	39.4	39.2	39.1	38.9	38.6	38.2
Average World Price (US$/cwt)	9.0	10.3	9.2	9.3	9.4	9.5	9.6	9.6	9.6	9.8	10.0	10.2	10.4

Table 98. 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
INCOME FACTORS						(Million U.S. Dollars)							
Production Market Value	2,356	2,287	2,750	2,785	2,793	2,841	2,905	2,943	2,973	3,009	3,052	3,108	3,135
Counter-Cyclical Payment	849	430	555	527	507	499	492	482	473	448	413	370	339
Total Income	3,205	2,718	3,305	3,312	3,299	3,340	3,396	3,426	3,446	3,457	3,465	3,477	3,474
						(U.S. Dollars Per Acre)							
Market Returns Above Variable Cost	261.7	472.8	423.7	470.8	473.7	469.4	427.7	428.1	427.7	433.6	443.6	454.6	458.1
Total Returns Above Variable Cost	535.8	654.1	614.0	657.0	655.6	646.6	600.0	596.4	592.5	590.5	588.9	585.4	578.8

Table 98. United States Long Grain Rice Supply and Use, 2016–2028

	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
SUPPLY AND DISTRIBUTION						(Pounds per Acre)							
Yield (rough basis)	6,927	7,314	7,517	7,517	7,581	7,663	7,763	7,868	7,975	8,081	8,181	8,279	8,376
						(Thousand Acres)							
Area Harvested	2,407	1,748	2,181	2,110	2,061	2,091	2,132	2,145	2,147	2,136	2,124	2,115	2,103
						(Million Hundredweight)							
Supply (rough basis)	209.5	182.2	207.8	216.8	218.9	223.7	231.1	239.0	246.1	250.8	253.1	253.5	251.6
Production	166.5	127.9	164.0	158.6	156.2	160.3	165.6	169.0	171.4	172.8	174.0	175.1	176.2
Beginning Stocks	22.7	31.0	20.3	36.2	39.4	39.7	41.9	46.5	51.0	54.5	55.8	55.2	52.5
Imports	20.3	23.3	23.5	22.0	23.3	23.7	23.6	23.6	23.7	23.5	23.3	23.1	23.0
Domestic Use + Residual	101.8	98.6	105.0	105.4	106.5	107.4	108.5	109.3	110.3	111.3	112.2	113.0	113.8
Exports	76.6	63.3	68.0	72.0	73.5	73.9	75.3	77.1	79.6	81.9	83.8	86.1	89.1
Total Use + Residual	178.4	161.9	173.0	177.4	179.9	181.3	183.8	186.4	189.9	193.2	196.0	199.1	202.9
Ending Stocks	31.0	20.3	34.8	39.4	39.7	41.9	46.5	51.0	54.5	55.8	55.2	52.5	46.8
PRICES						(U.S. Dollars per Hundredweight)							
Season Average Farm Price	9.6	11.5	10.7	11.1	11.2	11.3	11.3	11.4	11.5	11.6	11.8	12.0	12.2
Export Price, FOB Houston (U.S. No. 2)	22.2	27.2	25.5	24.9	25.1	25.2	25.4	25.4	25.5	25.7	25.7	25.8	25.8
						(Million U.S. Dollars)							
Production Market Value	1,600	1,471	1,755	1,762	1,770	1,822	1,885	1,929	1,964	2,001	2,046	2,101	2,136

Table 99. United States Medium Grain Rice Supply and Use, 2016–2028

	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
SUPPLY AND DISTRIBUTION						(Pounds per Acre)							
Yield (rough basis)	8,311	8,048	8,209	8,319	8,423	8,500	8,539	8,578	8,618	8,658	8,697	8,735	8,778
						(Thousand Acres)							
Area Harvested	690	626	734	721	724	725	723	721	721	719	716	712	707
						(Million Hundredweight)							
Supply (rough basis)	81.8	65.4	72.9	74.3	70.7	68.4	68.2	68.7	69.4	70.1	70.5	71.1	71.3
Production	57.7	50.4	60.3	60.0	60.8	61.4	61.6	61.7	61.9	62.1	62.0	62.2	62.1
Beginning Stocks	20.9	11.5	7.6	10.9	6.1	3.0	2.7	2.9	3.2	3.7	4.2	4.7	5.0
Imports	3.2	3.5	5.0	3.4	3.8	3.9	4.0	4.1	4.3	4.4	4.3	4.2	4.2
Domestic Use + Residual	31.4	36.2	30.0	31.0	31.1	30.8	31.1	31.7	32.2	32.4	32.3	32.3	32.5
Exports	38.2	23.7	32.0	37.1	36.0	35.4	35.2	35.3	35.2	35.3	35.4	35.5	35.3
Total Use + Residual	69.6	59.9	62.0	68.2	67.1	66.2	66.2	67.1	67.4	67.7	67.7	67.9	67.9
Ending Stocks	11.5	7.6	10.9	6.1	3.0	2.7	2.9	3.2	3.7	4.2	4.7	5.0	5.4
PRICES						(U.S. Dollars per Hundredweight)							
Japonica Farm Price	14.1	18.7	18.3	18.7	18.5	18.2	18.2	18.0	17.8	17.7	17.6	17.5	17.4
Medium/Short (excl Japonica) MG Farm Price	10.1	11.7	12.2	12.6	12.5	12.4	12.5	12.4	12.4	12.5	12.6	12.7	12.8
						(Million U.S. Dollars)							
Production Market Value	756	816	995	1,023	1,023	1,019	1,019	1,014	1,009	1,009	1,006	1,007	999

Table 100. Arkansas Rice Supply by rice type, 2016–2028.*

	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
Long Grain Area (1,000 acres)	1,390.0	955.0	1,200.0	1,199.9	1,192.0	1,190.7	1,199.4	1,196.9	1,194.7	1,192.7	1,190.7	1,188.4	1,185.6
Long Grain Yield (pounds per acre)	6,940.0	7,510.1	7,566.0	7,632.2	7,696.7	7,759.3	7,821.8	7,883.7	7,945.3	8,007.0	8,068.3	8,129.4	8,190.9
Long Grain Production (million cwt)	96.5	71.7	90.8	91.6	91.7	92.4	93.8	94.4	94.9	95.5	96.1	96.6	97.1
Medium Grain Area (1,000 acres)	131.0	149.0	176.0	190.4	193.0	195.4	193.6	191.8	190.7	189.9	189.3	188.9	188.5
Medium Grain Yield (pounds per acre)	6,754.2	7,330.9	7,322.5	7,468.9	7,557.3	7,615.6	7,666.2	7,716.6	7,766.9	7,817.1	7,867.1	7,917.1	7,966.9
Medium Grain Production (million cwt)	8.8	10.9	12.9	14.2	14.6	14.9	14.8	14.8	14.8	14.8	14.9	15.0	15.0
Total Area (1,000 acres)	1,521.0	1,104.0	1,400.0	1,390.3	1,319.9	1,343.9	1,389.3	1,410.7	1,421.3	1,421.2	1,415.3	1,411.0	1,405.9
Average Yield (pounds per acre)	6,920.0	7,490.0	7,520.0	7,609.8	7,686.9	7,745.7	7,808.1	7,869.7	7,930.9	7,992.2	8,053.1	8,113.8	8,174.8
Total Production (million cwt)	105.3	82.6	107.3	105.8	101.5	104.1	108.5	111.0	112.7	113.6	114.0	114.5	115.0

*. CWT= hundredweight.

Table 101. Louisiana Rice Supply by rice type, 2016–2028

	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
Long Grain Area (1,000 acres)	405.0	366.0	375.0	389.1	386.2	384.9	376.5	369.3	362.7	356.2	354.9	355.9	353.0
Long Grain Yield (pounds per acre)	6,660.0	7,150.6	7,183.3	7,229.6	7,282.7	7,335.3	7,387.6	7,439.4	7,490.9	7,542.1	7,592.9	7,643.5	7,693.7
Long Grain Production (million cwt)	27.0	26.2	26.9	28.1	28.1	28.2	27.8	27.5	27.2	26.9	26.9	27.2	27.2
Medium Grain Area (1,000 acres)	23.0	29.0	29.0	30.3	30.4	31.3	32.1	32.4	32.6	32.8	32.9	32.9	32.6
Medium Grain Yield (pounds per acre)	6,160.9	7,060.3	7,158.4	7,252.1	7,327.5	7,423.2	7,512.0	7,568.3	7,623.7	7,679.6	7,733.8	7,787.7	7,842.7
Medium Grain Production (million cwt)	1.4	2.0	2.1	2.2	2.2	2.3	2.4	2.5	2.5	2.5	2.5	2.6	2.6
Total Area (1,000 acres)	428.0	395.0	404.0	419.4	416.7	416.2	408.5	401.7	395.3	389.1	387.8	388.8	385.6
Average Yield (pounds per acre)	6,630.0	6,710.0	7,130.0	7,231.2	7,245.4	7,274.2	7,275.6	7,317.6	7,381.0	7,456.7	7,545.6	7,622.5	7,693.3
Total Production (million cwt)	28.4	26.5	31.2	30.3	30.4	29.9	30.1	30.3	30.5	30.3	30.4	30.5	30.3

*. CWT= hundredweight.

Table 102. Texas Rice Supply, 2016–2028.*

	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
Total Area (1,000 acres)	187.0	158.0	197.0	180.4	187.9	187.5	185.6	183.9	182.2	180.2	177.7	174.5	170.4
Average Yield (pounds per acre)	7,500.0	7,260.0	7,970.0	7,480.7	7,547.4	8,023.0	8,348.6	8,744.1	9,154.0	9,543.5	9,906.7	10,259.2	10,618.3
Total Production (million cwt)	13.8	11.5	15.1	13.5	14.2	15.0	15.5	16.1	16.7	17.2	17.6	17.9	18.1

*. CWT= hundredweight.

Table 103. Missouri Rice Supply, 2016–2028.*

	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
Total Area (1,000 acres)	231.0	160.0	219.0	210.5	212.5	212.1	212.2	211.9	211.4	209.7	207.9	205.9	203.7
Average Yield (pounds per acre)	6,640.0	7,440.0	7,770.0	7,348.9	7,390.8	7,892.6	8,076.2	8,275.8	8,490.2	8,714.7	8,944.9	9,183.0	9,433.3
Total Production (million cwt)	15.4	11.9	17.0	15.5	15.7	16.7	17.1	17.5	17.9	18.3	18.6	18.9	19.2

*. CWT= hundredweight.

Table 104. Mississippi Rice Supply, 2016–2028.*

	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
Total Area (1,000 acres)	194.0	114.0	149.0	130.2	143.7	152.8	158.2	160.5	161.6	161.8	161.3	160.3	158.8
Average Yield (pounds per acre)	7,180.0	7,400.0	7,350.0	7,639.7	7,683.2	7,731.3	7,779.3	7,825.9	7,872.1	7,918.4	7,964.0	8,009.3	8,055.1
Total Production (million cwt)	13.9	8.4	10.2	9.9	11.0	11.8	12.3	12.6	12.7	12.8	12.8	12.8	12.8

*. CWT= hundredweight.

Table 105. California Rice Supply, 2016–2028.*

	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
Total Area (1,000 acres)	536.0	443.0	483.0	500.2	500.1	498.5	497.6	496.9	497.2	496.7	493.4	489.8	486.2
Average Yield (pounds per acre)	8,840.0	8,410.0	8,620.0	8,706.7	8,804.0	8,873.4	8,905.9	8,940.7	8,976.5	9,010.7	9,043.3	9,126.7	9,153.3
Total Production (million cwt)	47.4	37.3	43.4	43.6	44.0	44.2	44.3	44.4	44.6	44.8	44.6	44.7	44.5

*. CWT= hundredweight.

Estimates of the Stochastic Baseline Analysis

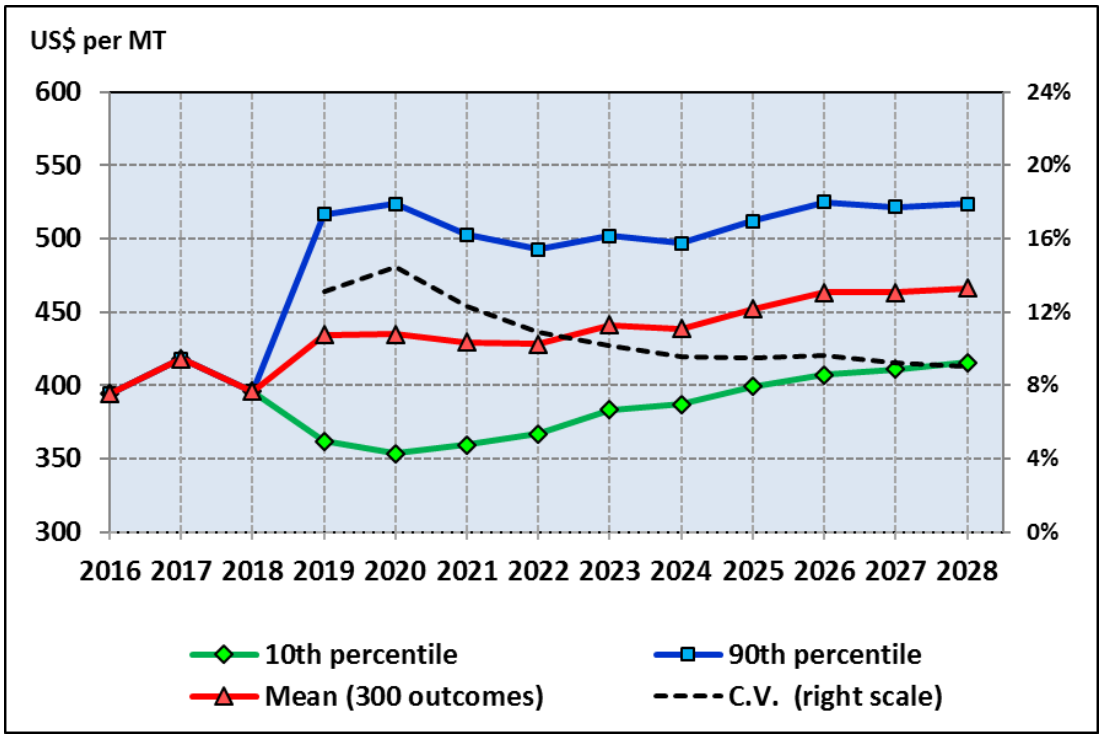

Figure 13 Stochastic Projection of Long Grain Rice International Reference Price, 2016–2028

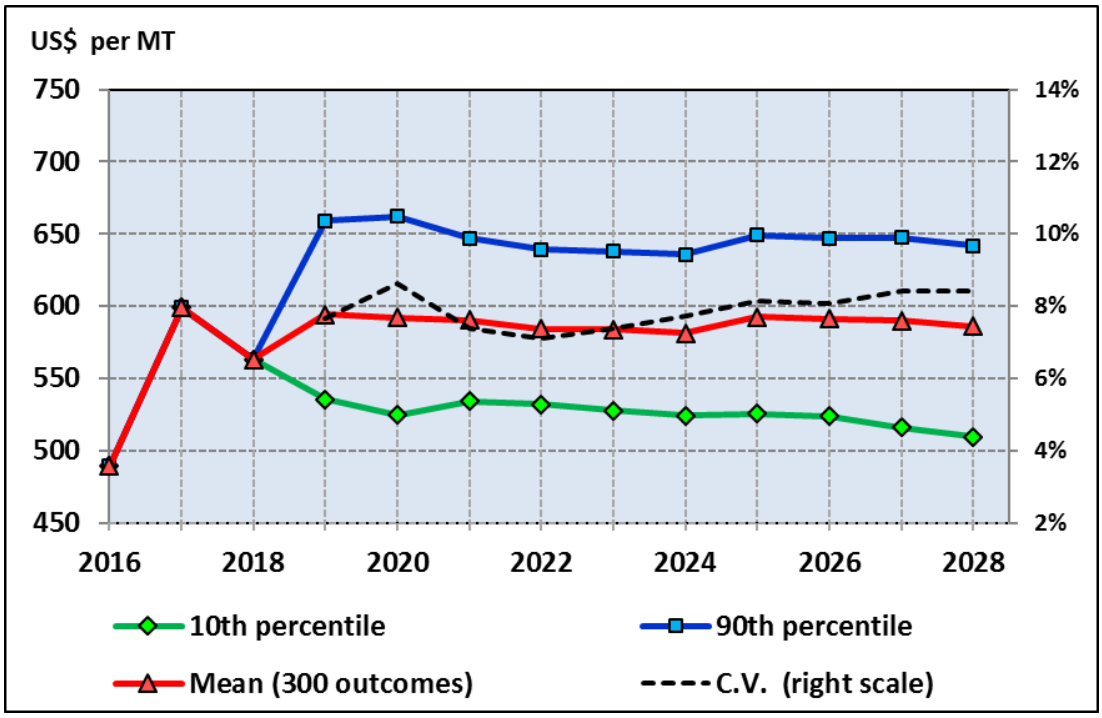

Figure 14 Stochastic Projection of U.S. Long Grain Rice FOB Export Price, 2016–2028

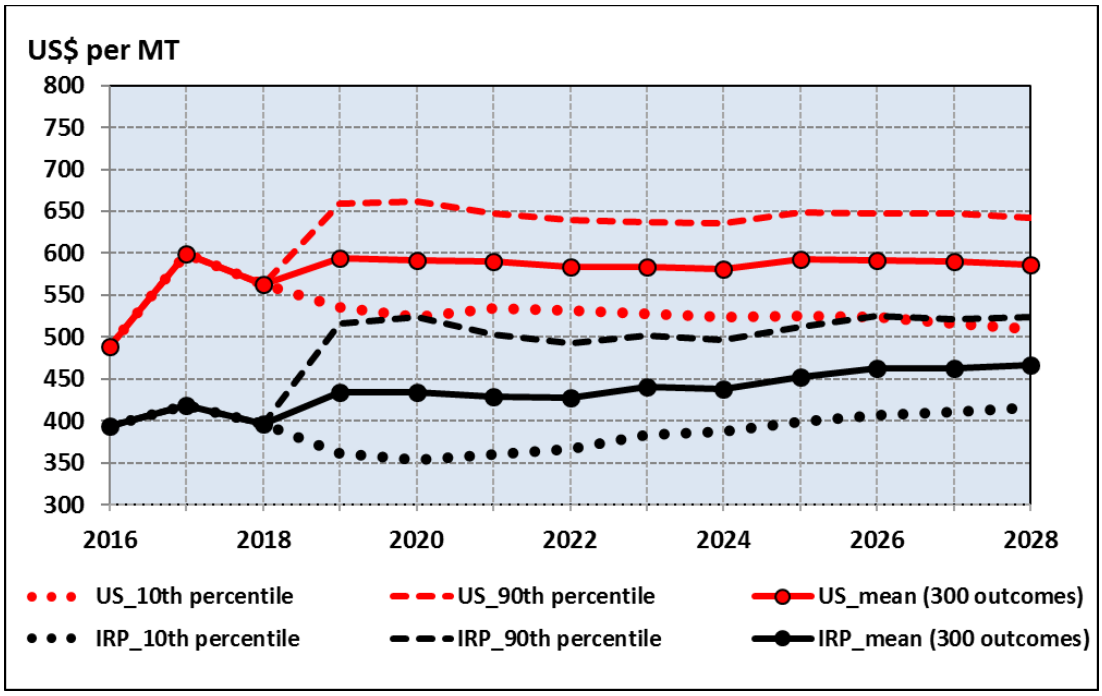

Figure 15 Stochastic Projection Comparisons of International Reference and U.S. Long Grain Rice Export Prices, 2016–2028

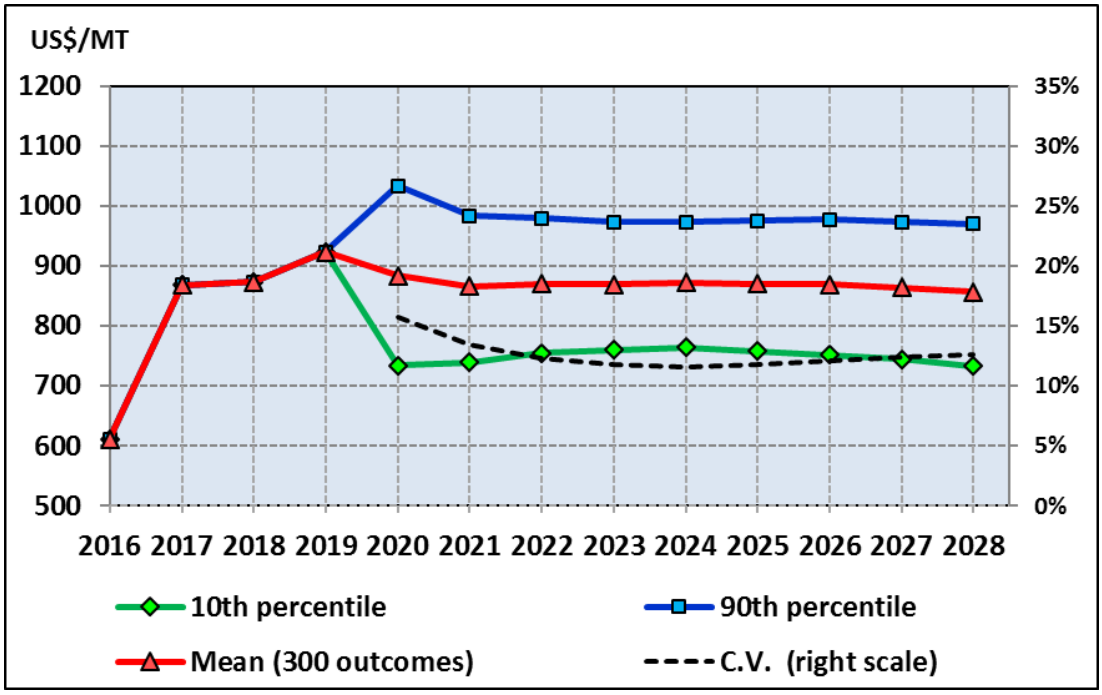

Figure 16 Stochastic Projection of Medium Grain Rice Price, FOB California, 2016–2028

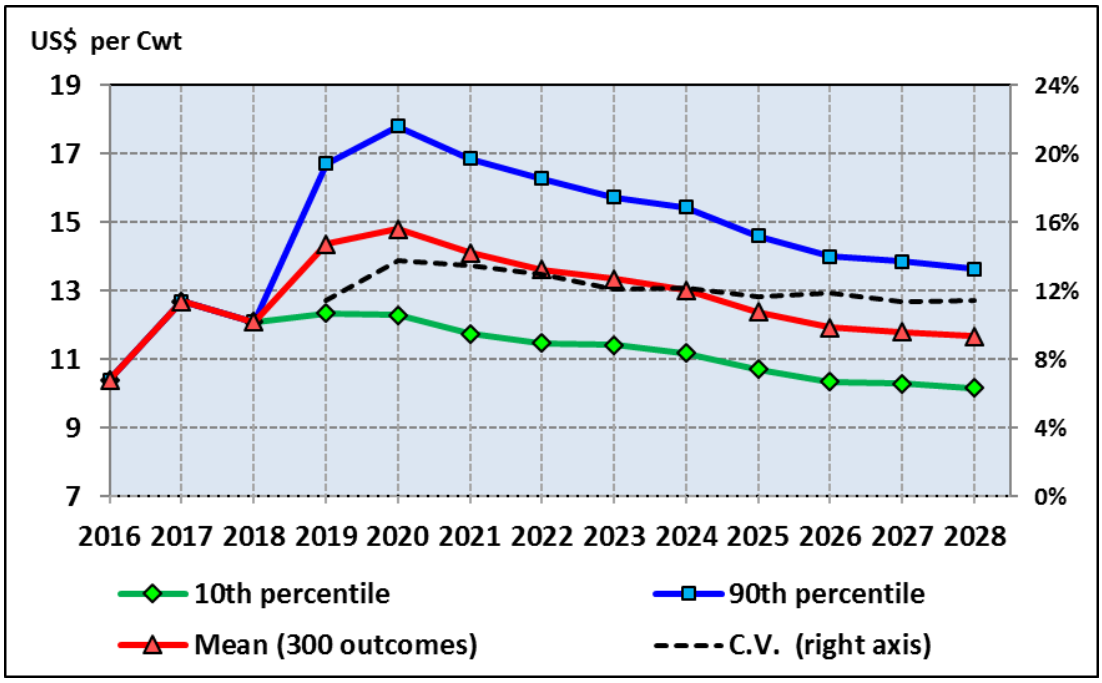

Figure 17 Stochastic Projection of U.S. Season Average All Rice Farm Price, 2016–2028

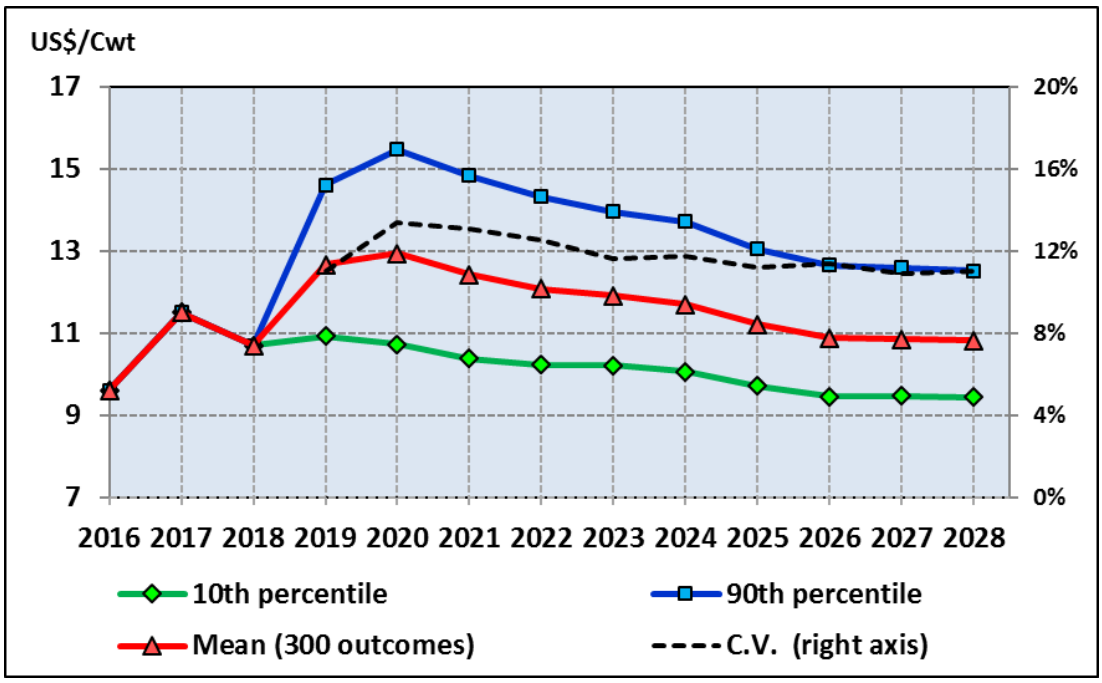

Figure 18. Stochastic Projection of U.S. Long Grain Average Farm Price, 2016–2028

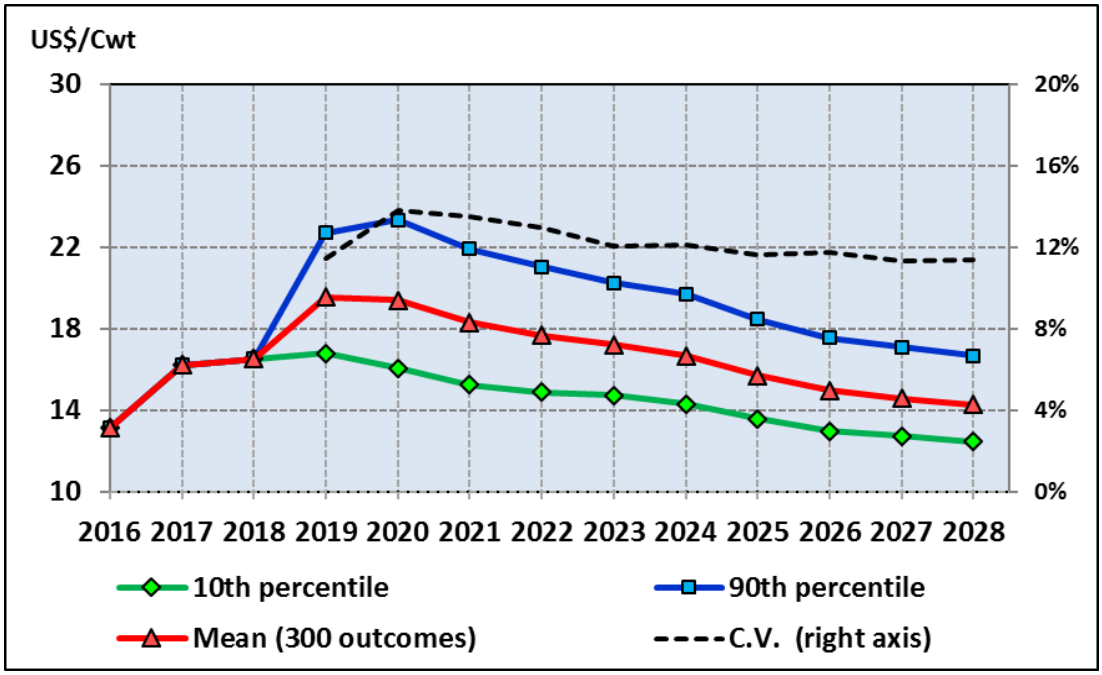

Figure 19. Stochastic Projection of U.S. Medium Grain Average Farm Price, 2016–2028

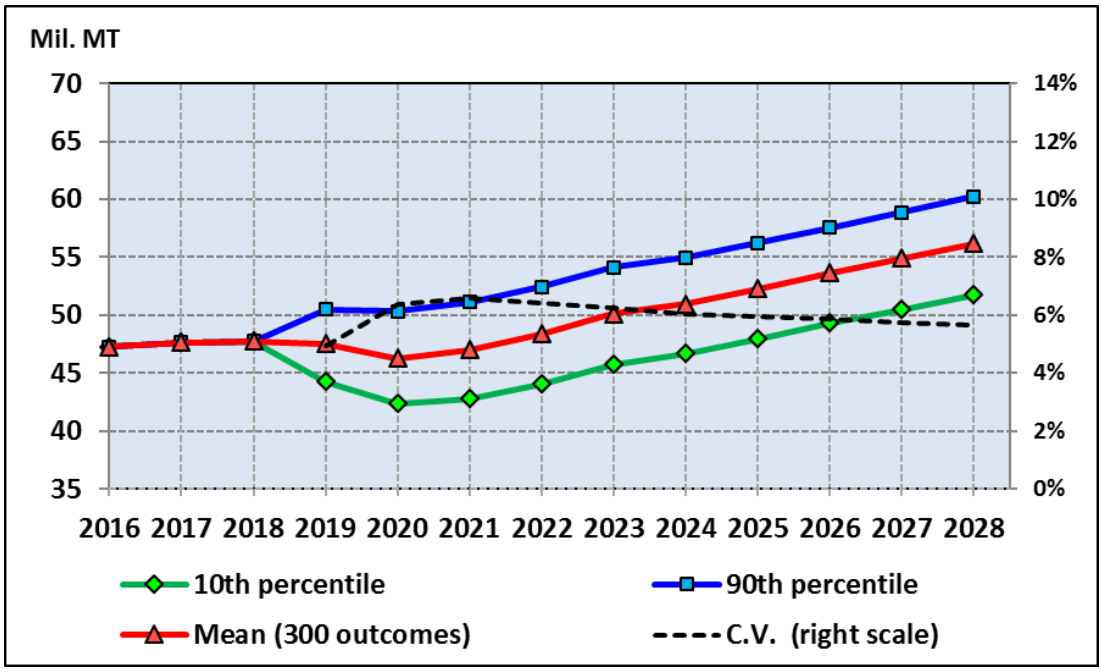

Figure 20. Stochastic Projection of World Rice Total Trade, 2016–2028

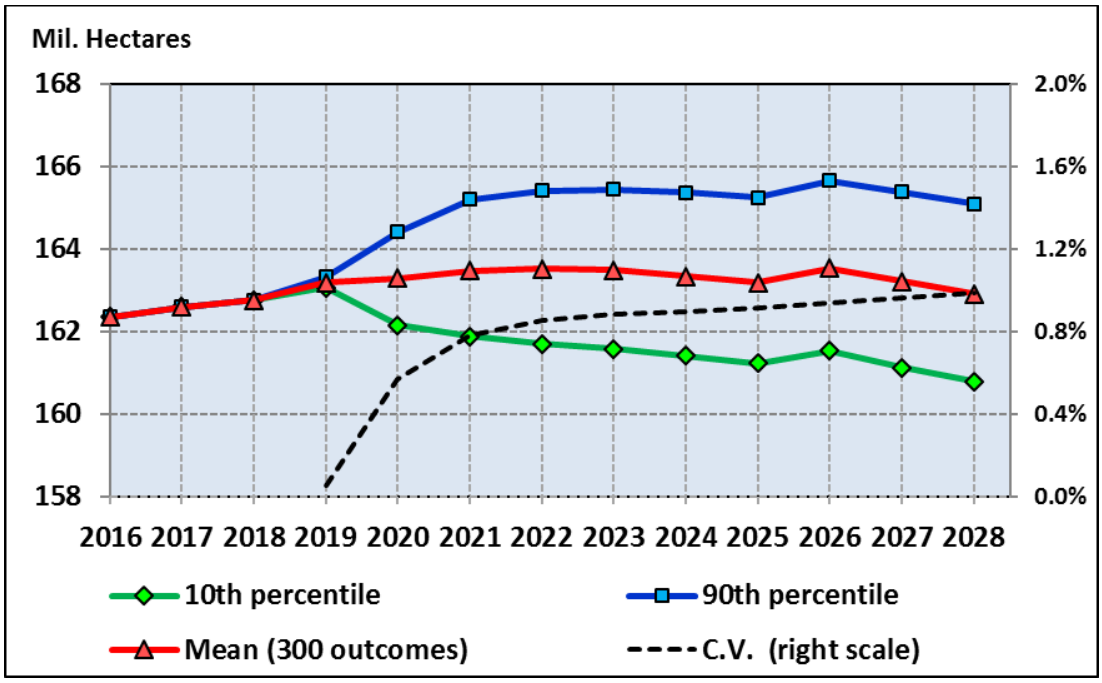

Figure 21. Stochastic Projection of World Rice Area Harvested, 2016–2028

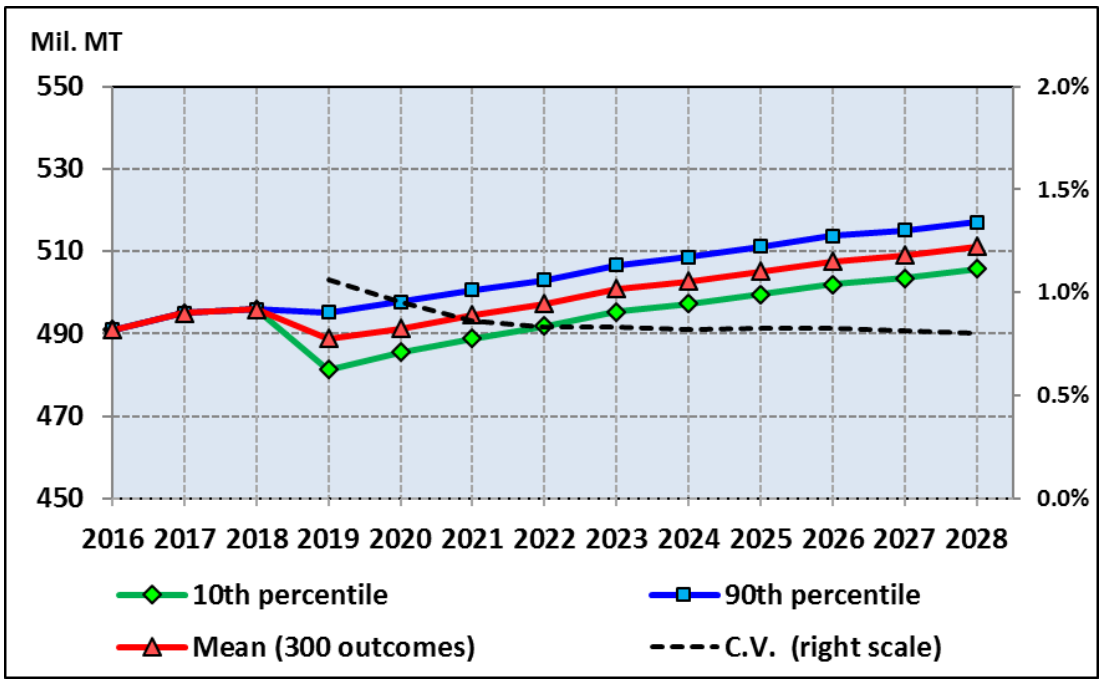

Figure 22 Stochastic Projection of World Rice Milled Production, 2016–2028

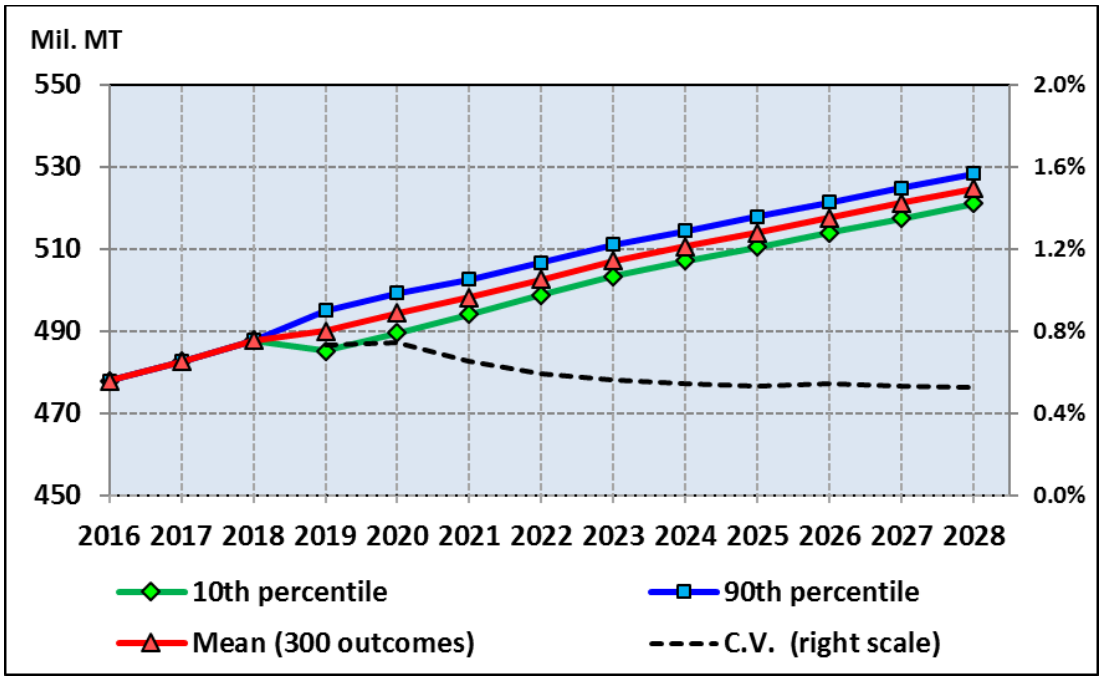

Figure 23 Stochastic Projection of World Total Rice Consumption, 2016–2028

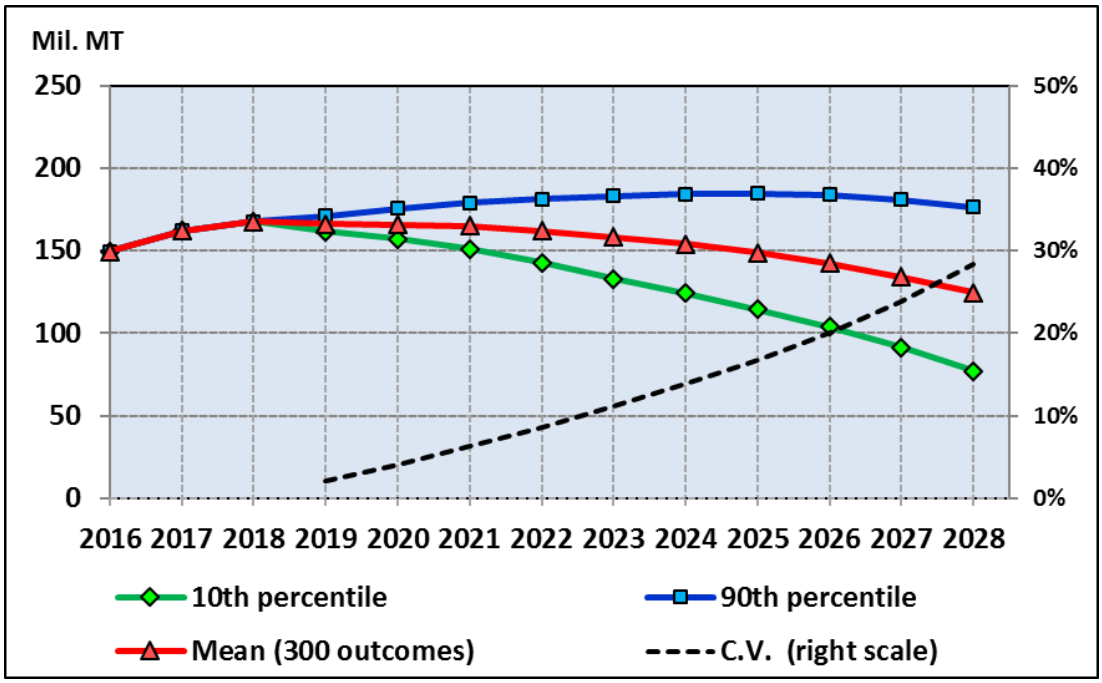

Figure 24 Stochastic Projection of World Rice Ending Stocks, 2016–2028

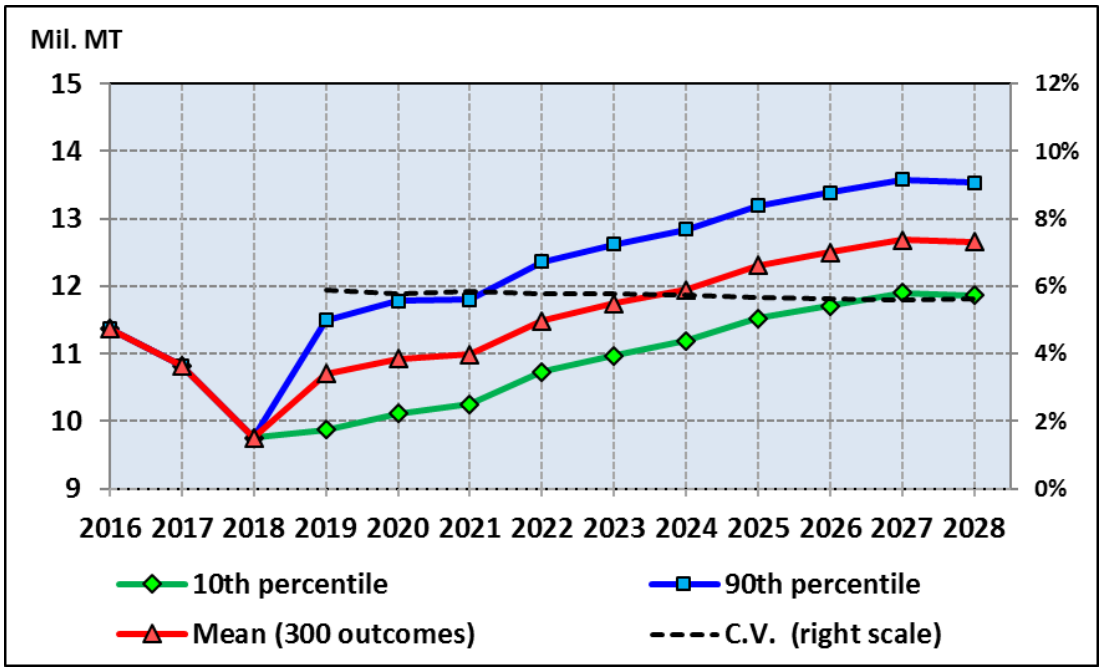

Figure 25 Stochastic Projections of Thailand Net Rice Exports, 2016–2028

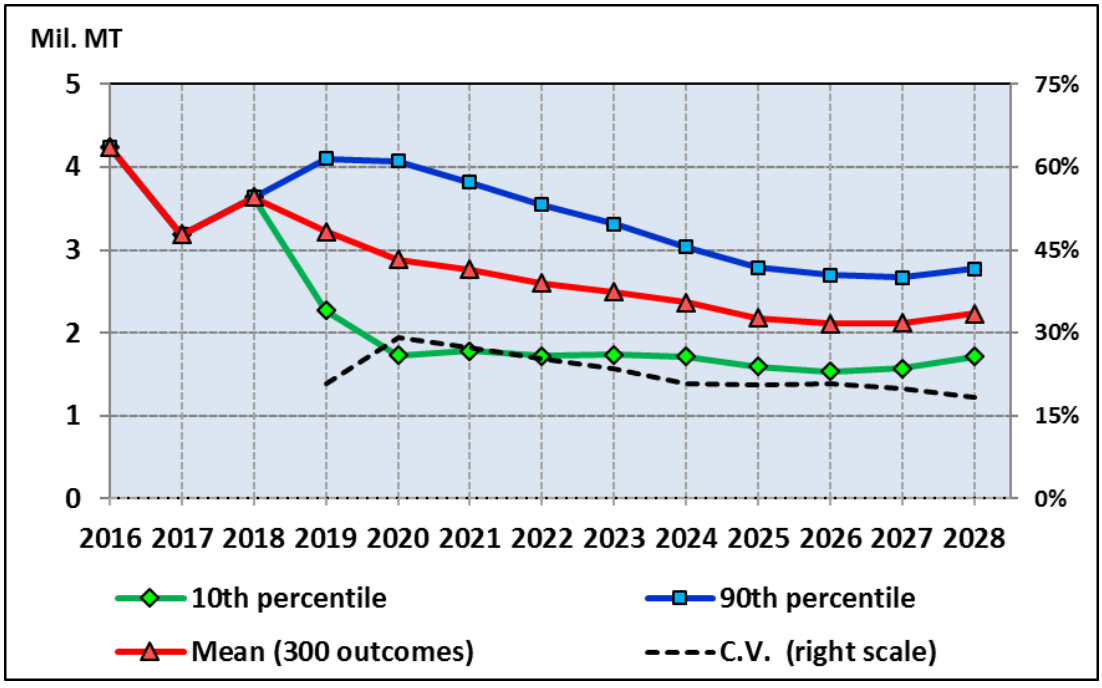

Figure 26 Stochastic Projection of Thailand Rice Ending Stocks, 2016–2028

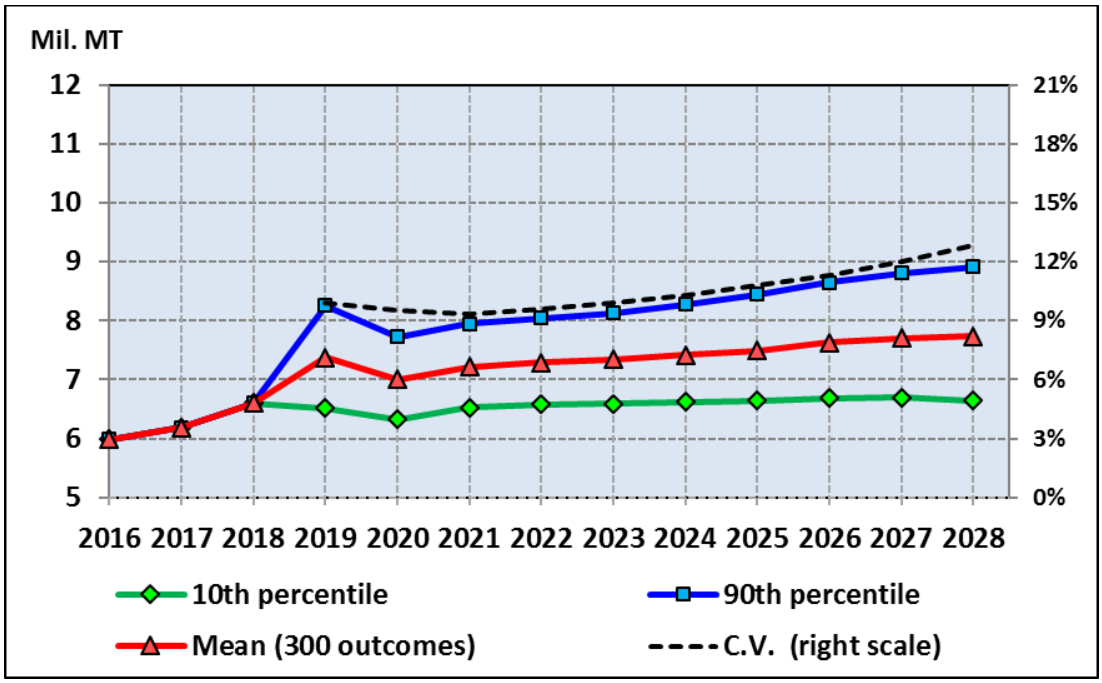

Figure 27. Stochastic Projections of Vietnam Net Rice Exports, 2016–2028

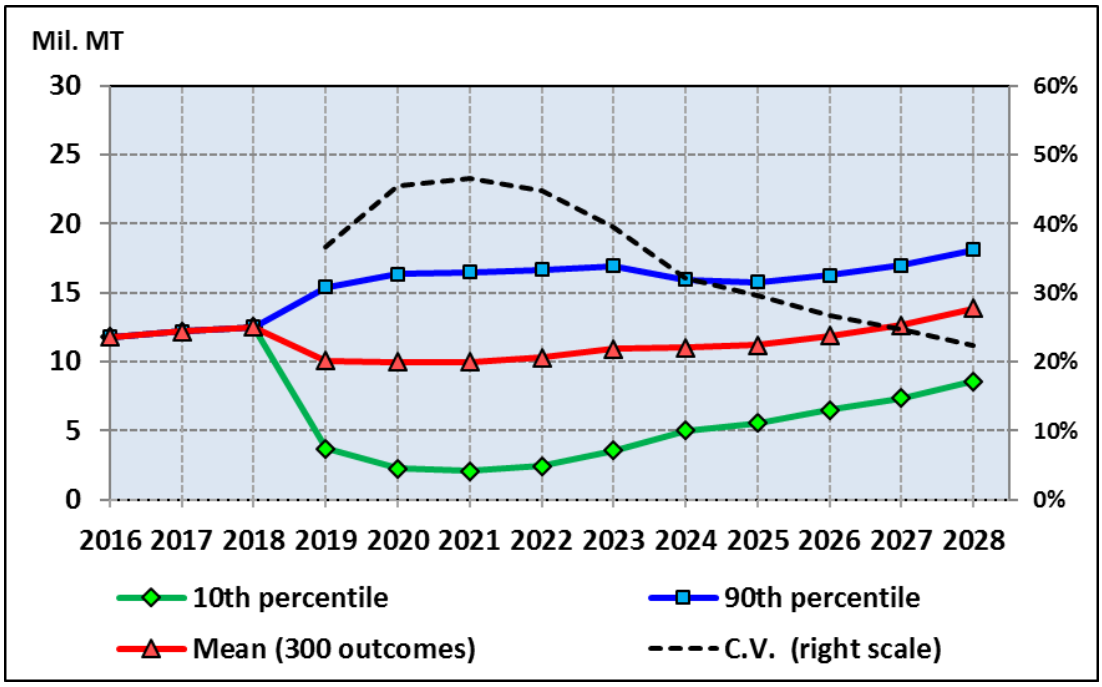

Figure 28. Stochastic Projections of India Net Rice Exports, 2016–2028

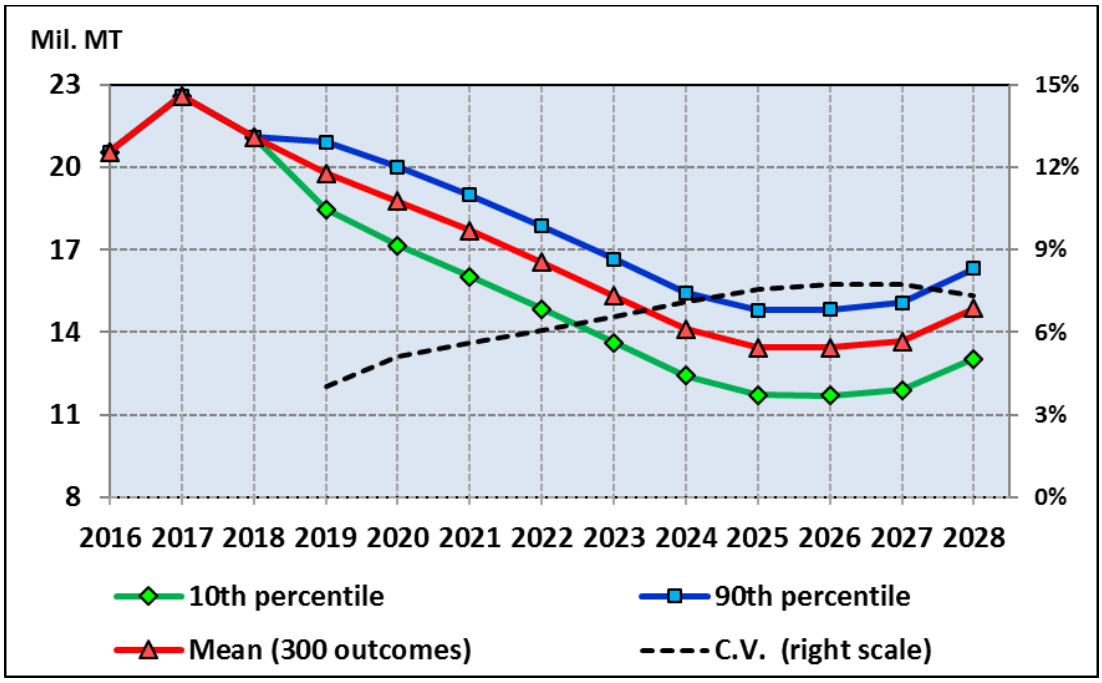

Figure 29. Stochastic Projection of India Rice Ending Stocks, 2016–2028

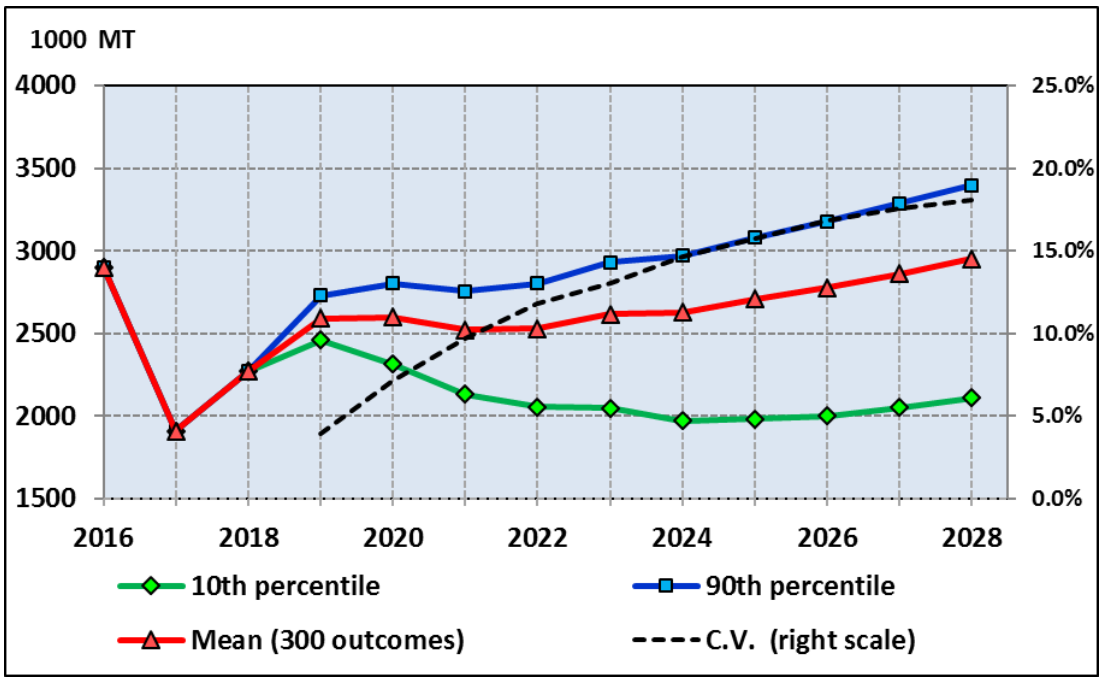

Figure 30. Stochastic Projections of U.S. Net Rice Exports, 2016–2028

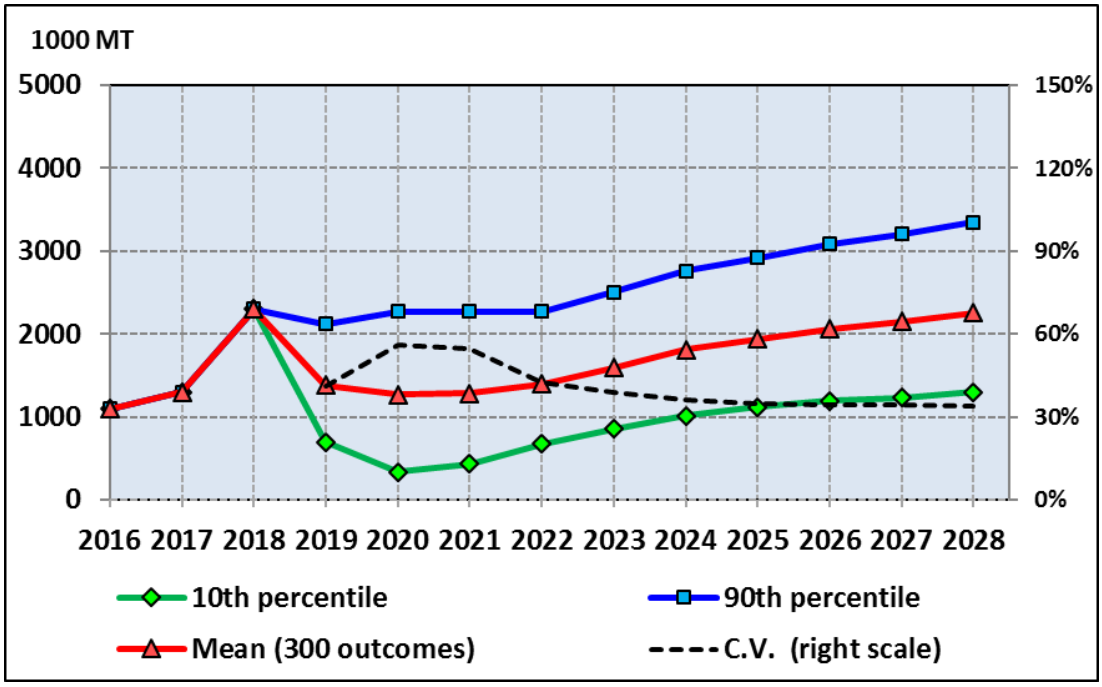

Figure 31. Stochastic Projections of Philippine Net Rice Imports, 2016–2028

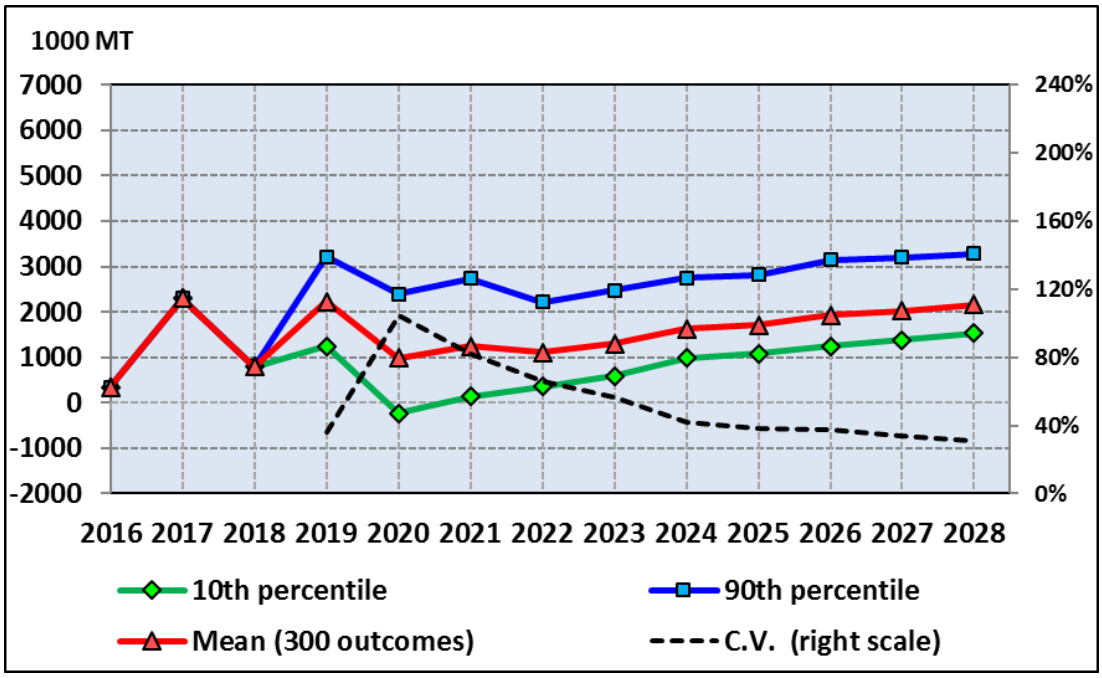

Figure 32. Stochastic Projections of Indonesia Net Rice Imports, 2016–2028

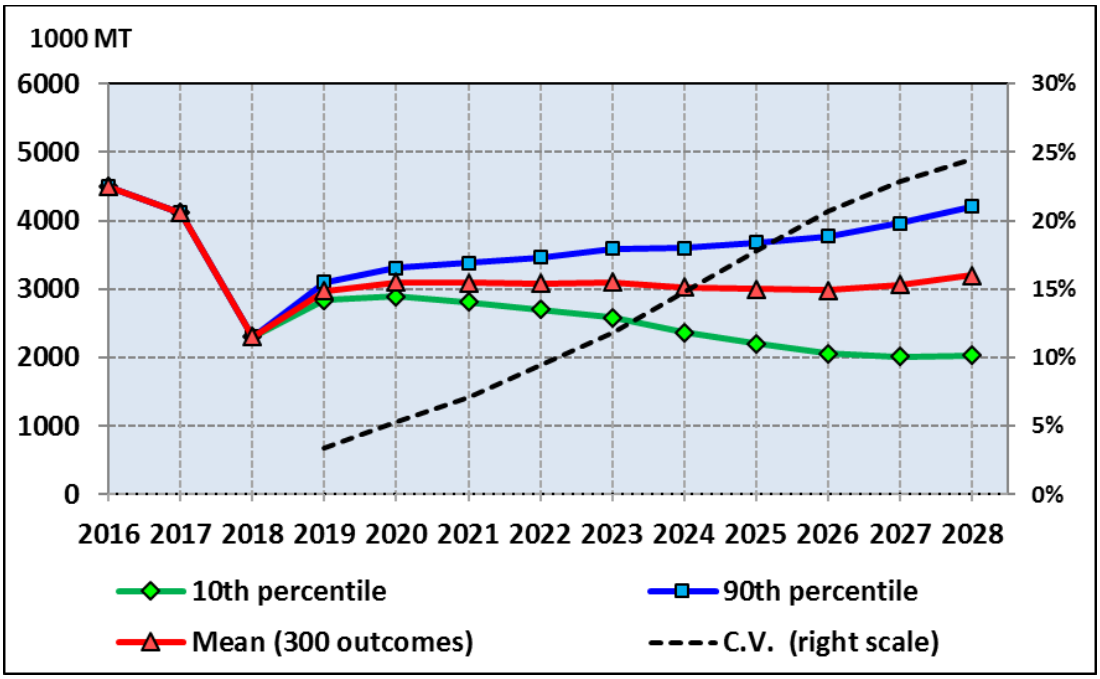

Figure 33. Stochastic Projections of China Net Rice Imports, 2016–2028

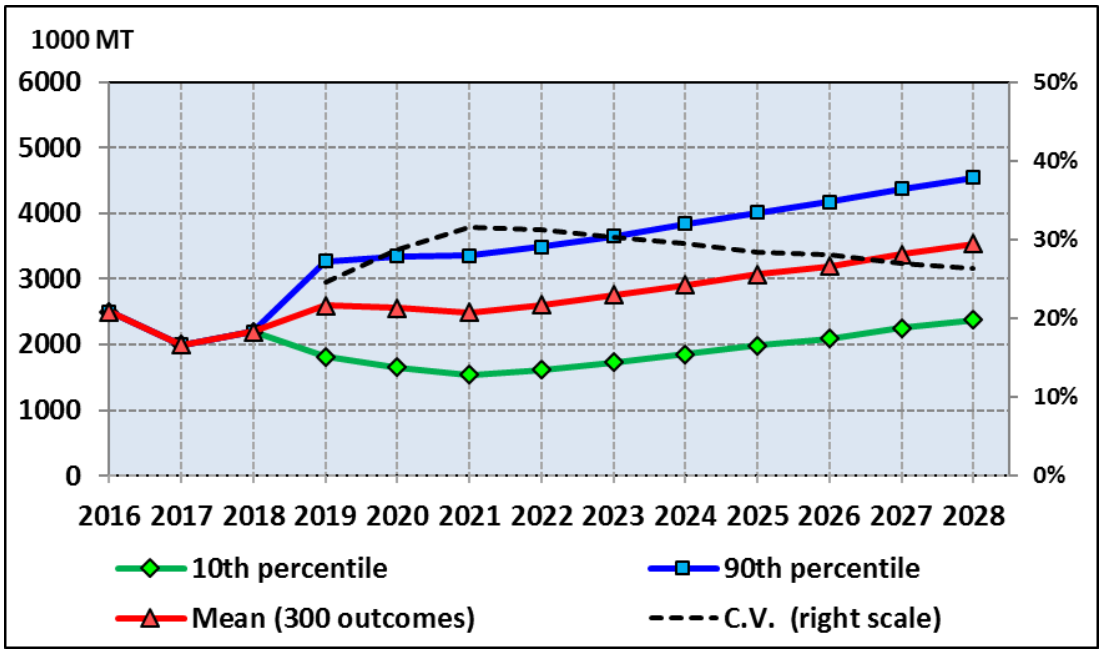

Figure 34 Stochastic Projections of Nigeria Net Rice Imports, 2016–2028

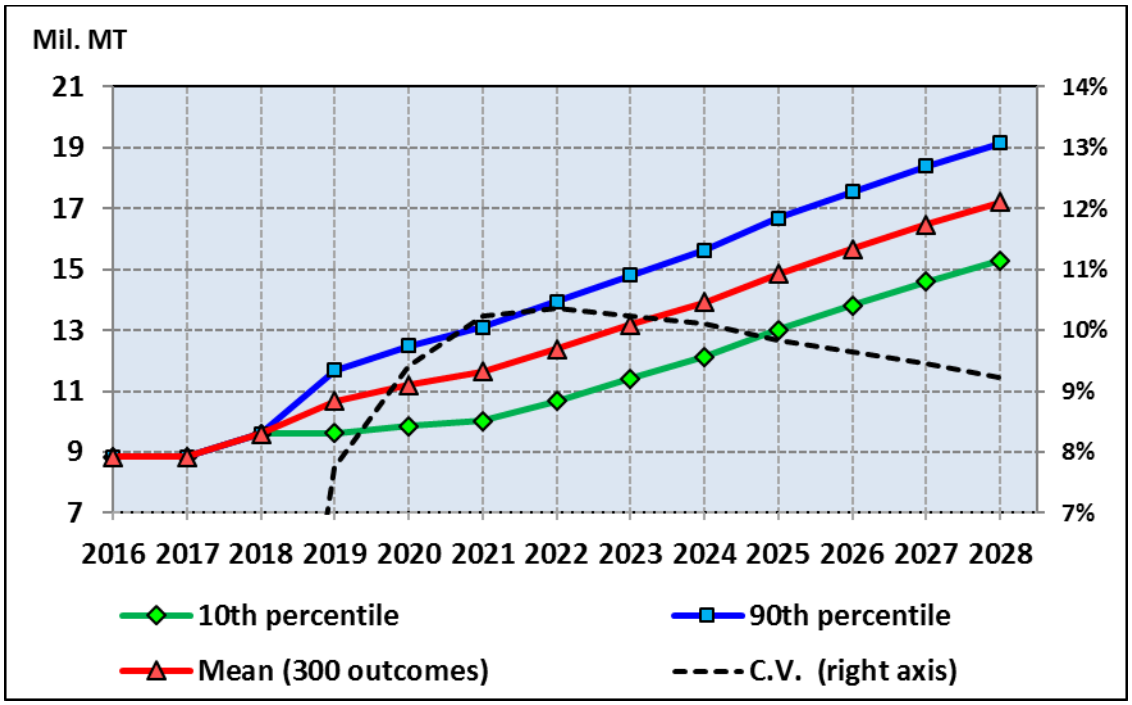

Figure 35. Stochastic Projections of ECOWAS Net Rice Imports, 2016–2028

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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
Argentina													
Import Tariff (MFN)	Percent	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
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
Government Procurement Quantity	1000/mt	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
Other import taxes	Percent	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
Import Tariff - MERCOSUR	Percent	0	0	0	0	0	0	0	0	0	0	0	0
Paddy Rice Support Price	R/50kg	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
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
Cambodia													
Import Tariff (milled rice)	Percent	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
Cameroon													
Import Tariff	Percent	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
Chile													
Import Tariff – MFN	Percent	6	6	6	6	6	6	6	6	6	6	6	6

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
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
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
In-quota Tariff Rate	Percent	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
Value Added Tax	Percent	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
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
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
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
CTPA Over quota Tariff	Percent	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
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
Brown Rice Import Tariff – MFN	Percent	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
Guaranteed Paddy Price	CR$1,000/mt	301	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
Cuba													
Paddy Rice Import tariff – MFN	Percent	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

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
Dominican Rep.													
Paddy Rice Import Tariff – MFN	Percent	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
Milled Rice Import Tariff – MFN	Percent	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	59.4	47.5	35.6	23.8	11.9	0	0	0	0
U.S. Brown Rice Import Tariff – CAFTA	Percent	83.2	75.2	67.3	59.4	47.5	35.6	23.8	11.9	0	0	0	0
U.S. Milled Rice Import Tariff – CAFTA	Percent	83.2	75.2	67.3	59.4	47.5	35.6	23.8	11.9	0	0	0	0
U.S. Brown Rice TRQ	1,000 mt	3.7	3.8	4.0	4.1	4.2	4.4	4.5	4.7	N/L	N/L	N/L	N/L
U.S. Milled Rice TRQ	1,000 mt	14.7	15.3	15.8	16.4	17.0	17.5	18.1	18.6	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
EU-28													
Brown (husked) Rice TRQ--ACP/OCT	1000 mt	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
Milled Rice TRQ--Everything But Arms (EBA)	1000 mt	650	675	700	725	750	775	800	825	850	875	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
Milled Rice In-quota Tariff-- (EBA)	Euro/mt	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
Milled Rice--General Import Tariff	Euro/mt	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
Ghana													
Import Tariff - MFN	Percent	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
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
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
Guinea													
Import Tariff - MFN	Percent	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

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
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
Honduras													
Import Tariff - MFN	Percent	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
India													
Import Tariff - MFN	Percent	70	70	70	70	70	70	70	70	70	70	70	70
Minimum Support Price (MSP) Low	INR/mt	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
Minimum Support Price (MSP) A grade	INR/mt	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590	1,590
Indonesia													
Import Tariff - MFN	Rp/kg	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
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
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
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
Japan													
Import Markup	1,000 Yen/mt	133	141	134	128	127	131	133	133	131	131	134	134
Special Safeguard Duty	1,000 Yen/mt	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
Minimum Access Import Level	1,000 mt	682	682	682	682	682	682	682	682	682	682	682	682
Kenya													
SOA Import Tariff (or $200 if higher)	Percent	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
Lao PDR													
Import Tariff	Percent	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
Madagascar													
Import Tariff	Percent	0	0	0	0	0	0	0	0	0	0	0	0

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
Malawi													
Import Tariff - MFN	Percent	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
Malaysia													
Milled Rice--Applied Tariff (AFTA)	Percent	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
Mali													
Import Tariff	Percent	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
Milled Rice Import Tariff - MFN	Percent	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
TRQ in-quota Tariff	Percent	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
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
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
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
Myanmar													
Paddy Floor Price	K1,000/mt	0	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
MFN Import Tariff - Milled Rice	Percent	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
Import Tariff – Exclusive Importers	Percent	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
Other import tax and surcharge	Percent	12	12	12	12	12	12	12	12	12	12	12	12

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
Pakistan													
Import Tariff - MFN	Percent	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
Panama													
Import Tariff - MFN	Percent	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
Peru													
Import Tariff - MFN	Percent	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
Price Band – Maximum	USD/mt	480	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
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
Milled Rice In-quota Tariff - MFN	Percent	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
Senegal													
MFN Import Tariff - Paddy Rice	Percent	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
Sierra Leone													
Import Tariff	Percent	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
South Korea													
In-Quota Tariff Rate	Percent	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
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
Sri Lanka													
Specific Import Duty	Percent	30	30	30	30	30	30	30	30	30	30	30	30

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
Taiwan													
Minimum Access TRQ	1000 mt	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
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
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
Turkey													
MFN Import Tariff - Paddy Rice	Percent	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
Production Premium	TL/mt	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
Uruguay													
Import Tariff - MFN	Percent	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
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
Price Loss Coverage (PLC):													
PLC Reference Price Long grain	$/cwt	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
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
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
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
Vietnam													
Import Tariff - MFN	Percent	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
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
Import Tariff - MFN	Percent	15	15	15	15	15	15	15	15	15	15	15	15