KnE Social Sciences

BESS 2023
The 3rd International Conference on Business, Economics, and Sustainability Science
Volume 2024

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Research Article

Analysis of Rice Trade and Food Security in Southeast Asian Countries

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Abstract.
The rice trade serves to maintain sufficient rice stocks to meet domestic country demands. The world's main rice exporters and importers are located in the Southeast Asia region, so the volume change of traded rice can affect the flow of trade. Given the strategic importance of rice, numerous nations have stepped in to control the domestic rice market, to ensure political stability as well as food security. This article aims to examine how the rice trade has evolved in Southeast Asia with respect to food security. The study aims are addressed by the application of the descriptive analysis method. The findings indicate that from 110.5 million tones in 2010–2011 to 128.3 million tones in 2021–2022, Southeast Asian countries accounted for 1.22% of global rice imports, >22% of the world's total rice consumption. In the meantime, the annual growth rate of rice exports was 3.3%. Over the past 10 years, ASEAN's net rice exports have made up 53.3% of the world's total and are expected to reach about 54.8%. Southeast Asian countries intervene in the rice market through international trade policies, both in the form of export bans and domestic rice price stabilization policies, to maintain rice stocks to strengthen the level of food security. Southeast Asia's economic integration through the ASEAN Economy Community is an important moment to become the basis for achieving food security at the regional levels while at the same time making the rice market more open among Southeast Asian countries.

Keywords: rice, trade, policy, Southeast Asia

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Published 31 July 2024

Publishing services provided by Knowledge E

Selection and Peer-review under the responsibility of the BESS 2023 Conference Committee.

1. Introduction

One of the three most significant cereal crops in the world, rice is crucial to supplying the world's food demands. For most Asians, rice is their primary source of carbs. For the majority of Indonesians, rice is a basic diet. In Asia, rice is the staple food of choice for half of the world's population. It's been grown for 113 years. Half of the world's rice supply comes from China and India, with the remaining countries being Bangladesh, Vietnam, Thailand, and Myanmar (FAOSTAT, 2017). The ASEAN agenda for food security is dynamic and includes cross- cutting problems that change over time. Indonesia's per capita rice consumption in 2017, as reported by the OECD and FAO (2018). surpassed the weights of the Philippines (115 kg), Thailand (99 kg), and Malaysia (81 kg) by reaching 135 kg. As a result, the Indonesian government has traditionally placed a high political

premium on rice, particularly in the fields of trade and agriculture (ADB, 2012). Where half of the seven billion people consume rice Asians consume more than 90 percent and more than 22 percent People in Southeast Asia consume (Samarendu Mohanty, 2013). In addition, rice also plays a roleimportant role related to the nutritional needs of the community. Actuallys for some people rice is also a central part of the culture of many communities. Offer food, especially rice, in sufficient quantity and at a reasonable price,remains the main goal on the development of national agriculture. Policy to maintain adequate rice supplies contribute significantly to maintaining food security, one of which can be done through trade. Population growth and the shift of the center of the world economy mainly to the Asian region with the emergence of developing countries such as China and India, trade increased Southeast Asian countries as part of a production and supply chain network (Masahiro Kawai et al., 2008). The major rice-importing nations in Southeast Asia are Indonesia, Malaysia, and the Philippines, whereas the major rice-exporting nations in the region are Thailand and Vietnam. The expansion of the global rice market was significantly impacted by the rice trade in Southeast Asia. Asian rice imports made up 14.08 percent of Southeast Europe's growth rate between 2005 and 2012, according to UN Comtrade.

About 557 million people in Asia are fed by rice, a staple grain that is essential for preserving food security, encouraging employment in rural areas, and generating income for export (Manzanilla et al., 2011; Xu et al., 2012; Le, 2016). Meanwhile, the Food and Agriculture Organization (FAO) is evaluating thisin 2013, Indonesia is one of the countries that stimulate the total to shrink to import rice to the world market. In contrast, the share of rice consumption in the Southeast Asian region averages more than 22 percent of world riceconsumption. (Samarendu Mohandy, 2013). So to meet the rice needs of the country and fulfill Southeast Asian countries often face the demand for rice in the world market. to fill the demand of rice in the world market helps the country to improve its income. Thailand the government buys rice in large quantities even at high prices to prevent its export. The with the intensification of the fine rice trade and market competition with its establishment The ASEAN market will ultimately affect the maintenance of food security if not fulfilled good use (OECD and ASEAN, 2003).

2. Literature Review

2.1. International Trade

International trade plays an important role in measuring economic growth and at the same time job creation without public finance and even export activities can reduce

the pressure of the balance of payments. International trade also benefits from supply increasing productivity through innovation and technology transfer. Based on the HeckscherOhlin (HO) model or also called factor theory that uses the assumption two input factors between two countries and two goods, explains whether a country produces and goods exported from relatively more intensive factors of production and land imports goods whose production is relatively less factor- intensive. HO model is a neoclassical model that is relatively closer to actual behavior. Basically, this trade takes place for the benefit of exporting and importing countries specialization of resources. State or political boundaries between one state and another does not change the basic principles of international trade (Robert M. Dunn, 2004).

2.2. The relationship between international trade and food security

Food security in Asia has traditionally been defined as the stability of rice prices in a country the main markets of the cities. World markets are used along with imports to maintain this goal and exports controlled by government agencies whose job is to keep prices stable (Timmer 1996). This approach to food security makes sense in light of the fact that rice accounts for over half of daily calories in some countries and accounts for one- third of the GDP in others through production, marketing, and consumption. Therefore, it is the responsibility of the market, governments, and policy makers to assure correct information by establishing external quality indicators that can influence the value of the entire rice chain and aid in decisions about production and consumption (Minu, Demont, and Verbeke, 2021). One of the major producers of rice in South and Southeast Asia, Thailand, has already implemented a strategy that highlights the importance of outside variables and quality guidance in fostering the growth of contemporary retail (Custodio et al., 2019; Silayoi and Speece, 2007). The rice value chain experiences structural change at various stages and in various ways throughout Asia, where the majority of the world's rice is produced and consumed. This appears to improve rice quality and diversity, nutrition, and equity in addition to food security (Barrett, Reardon, Swinnen, and Zilberman, 2019; Reardon, Minten, Chen, and Adriano, 2013; Timer, 2017). With a few significant exceptions, like Vietnam and Bangladesh, people still obtain more than half of their calories from foods like rice. But it doesn't mean the endof the world. However, the mindset persisted, with rice being the main topic of discussion when it came to food as recently as 2010 and Asian security (Timmer 2010). It's time to update it, considering that the upgrade calls for a more precise identification of the rice consumers. The impoverished, who must mostly purchase from markets in cities and rural areas, consume even more rice. In most Asian countries, it is almost a given that selling excess rice raises the family poverty line. Furthermore, Asia

needs a policy that keeps rice prices high and above long-term global market levels in order to preserve price stability. If food security is synonymous with food self-sufficiency, then this approach can work more effectively because local production facilitates the stabilisation of high domestic food prices, as opposed to subsequent periods when prices fluctuate greatly based on the global rice market. However, this tactic drives up the cost of rice for consumers, which quickly pushes up the nation's poverty rate. For countries following the theory food self- sufficiency, rather than food self- sufficiency, usually focuses on filling and versatile availability of food. This is why international trade exists an important part of the food security strategy. These countries tend to use globalization expands markets and produces export- oriented agricultural products. Another perspective on capitalism from developing countries to developing countries, it can be seen in the efforts of these underdeveloped countries to build as much the capacity as possibleand at the same time create mutually beneficial cooperation with other countries. Food self- sufficiency can be areal step in building a country's capacity to reduce vulnerability influences that harm his domestic interests (George Kent, 2002).

2.3. Empirical Review

Food trade plays an important role in the level of food security in many countries. Because countries must diversify their sources of imports to reduce their vulnerability to domestic supply. Bilateral agreements with non- traditional suppliers, regional trade agreements, reservesystems, infrastructures and institutions affect a country's ability to diversify its supplies base. At the same time, help in the field of business, improved business opportunities and better business financing and security systems can contribute significantly to international in the foodsafety community (Douglas Brooks et al., 2013). Global negotiations through the Uruguay Round will provide a basis for the role of international trade in food security. Furthermore, individual food security is impacted by the national agricultural trade policy; but, overall, agricultural development is anticipated to improve farmer productivity and economic standing indirectly (Lase and Lestari, 2020a). For millennia, the predominant agricultural practises in rural Southeast Asia's (MSEA) mainland have been centred around rice production. livelihoods as well as the growing local, regional, and international trade. The incentives for small farmers to produce rice, however, were lower than those for other on-farm, off-farm, and other sources of income. Many rice farmer households attempt to diversify their crops and means of subsistence in response to opportunities as a result of these socioeconomic shifts (Cramb et New, 2015; Tanaka, 1995). The government implements the food securitypolicy through planning protection of elements pertaining to general food safety. These regulations relate to (1)food production (credit and production input subsidies,

investments), (2) marketing (marketing). development, food price stability, (3) labor force (promotion of export quality crop, developingsmall and medium-sized industry). and (4) transfers and direct assistance safety nets (nutritionprograms) (Christoper Stevens, Romilly Greenhill et al., 2013). According to Ramon L. Clarete's research, the extreme price fluctuation of rice has little todo with it impact on ASEANcountries. This will happen as ASEAN develops international trade more deeply strategy, maintains rice supplies at national and regional levels and collects and interprets knowledge and market knowledge (Rammon Clarete, 2013). ASEAN Rice Trade Forum and a program tofacilitate rice trade by harmonizing rice quality and certification systems become important in the future for regional rice trade, including acceleration of the reduction rice import duties by adding rice to the trade agreement (ATIGA). One the rice exporting country is Vietnam. Afterachieving rice self-sufficiency in 1989. Vietnam became the world'ssecond largest exporter from an importing country after Thailand. This is due to the expansion of planting and the increase in yield. Irrigation and improved drainage, intensive fertilizer, and a rice export quota program stateenterprises (BUMN). The rice export program made Vietnam relatively lower rice export prices (same quality rice) compared to Thailand. Its explain the difference between international trade policy and food security. If domestic policies are implemented so that farmers get enough food and benefits trade barriers should not be usedas a protection measure. If developed countries support food exports, this condition becomes an incentive for consumers to import countries in the form of lower prices. However, imports must be considered as such competition with domestic producers works more fairly (FAO, 2003). Based on some of these empirical reviews,international trade plays an important role in ensuring a country's food security. on the conditions of foodsupply.Many countries responded by liberalizing the rice trade to the domestic market so that the supply of domestic rice is more reliable. Results and discussion although much depends on weather conditions during the critical summer months. The FAO has estimated that the world's rice production in the Americas and Europe will reach 519.5 million tonnes in 2022, just 1.4 million tonnes less than the record set in 2021. It is anticipated that some Asian harvests will sustain this productive outcome. For the third year in a row, international rice commerce is anticipated to expand in 2022, with a volume of exchange predicted at 53.1 million tonnes, or 3% more than the peak in 2021. With the exception of Asia, strengthening import demand is anticipated to fuel this expansion. Cheap supplies from Brazil, Pakistan, Uruguay, China (mainland), and especially Thailand are possible. India is predicted to continue being the world's top rice exporter in spite of this. The total amount of rice used in 2022– 2023 will be 522.0 million tonnes, which is marginally more than the peak of 2021–2022. With the exception of while consuming food, it is anticipated that the other strong increase in the food supply will be much larger than the

decline. Although just 0.8 million tonnes, the world's rice supply must be replenished in order to reach this utilisation rate. Due mostly to China (Mainland) and India, that would raise global rice stocks to 191.6 million tonnes, the second-highest amount ever recorded. Since the beginning of 2022, rice prices have increased globally as a result of significant supply and demand restrictions in the Japonica and Wang sectors. However, if measured In May 2022, they will be 1.2 percent lower than before, according to the FAO All Rice Index. year after year, as imited prices for Asia's best-sellingIndica strain rose.

3. Methodology

The purpose of this paper is to use descriptive analysis supported by statistics information Dataon rice exports, imports, prices, production and consumption are secondary data Statistics Finland (BPS), Asian Development Bank (ADB), food and Agricultural Statistics (FAOstat), International Rice Research Institute (IRRI) and Ministry Trade of the Republic of Indonesia.Data analysis begins in the period 2010-2021 in which period there is a fluctuation of grain prices on the world market, to which you react different rice trade policies. The determination of rice as an analyzed commodity is based on its dominant position in business in the SoutheastAsian region and the world. At the same time, the southeast The Asian countries included in the analysis were Indonesia, Malaysia, Singapore and Brunei Darussalam, Philippines, Thailand, Cambodia, Laos, Vietnam and Myanmar. East Timor not included in the analysis due to data limitations.

4. Result and Discussion

While a lot will rely on the weather in the crucial summer months in Europe and the Americas, the FAO has projected that world rice production in 2022 would be 519.5 million tonnes, which is just 1.4 million tonnes less than the record. 2021's highest point. On the other hand, the harvest in Asia is anticipated to continue this favourable output outcome. With the volume traded globally forecast at 53.1 million tonnes in 2022—3% more than the 2021 peak— international rice trade is predicted to rise for the third year in a row. The rise in imports is anticipated to be sustained by an intensification of demand from all regions, with the exception of Asia. Shipments from Brazil, China (mainland), Pakistan, Uruguay, and particularly Thailand may benefit from this. However, it is anticipated that India would continue to be the world's top exporter of rice. The projected 522.0 million tonnes of rice used in 2022–2023 represents a little increase above the 2021–2022 peak, as others It is anticipated that the decline in non-food use will substantially offset the significant increase in food intake. Recalling global

rice inventories will be necessary in order to satisfy this utilisation volume forecast, albeit in minor amounts—0.8 million tonnes. This would place global rice inventories at 191.6 million tonnes, the second-highest amount ever recorded, mostly as a result of accumulations in India and China's interior. Since the beginning of 2022, rice prices have increased globally due to increased import demand and supply shortages in the Japonica and Wangi segments. However, because the availability of Asia's most traded Indica type has prevented price growth, as measured by the FAO All Rice Price Index, as of May 2022, they remain 1.2% below the level of the previous year.

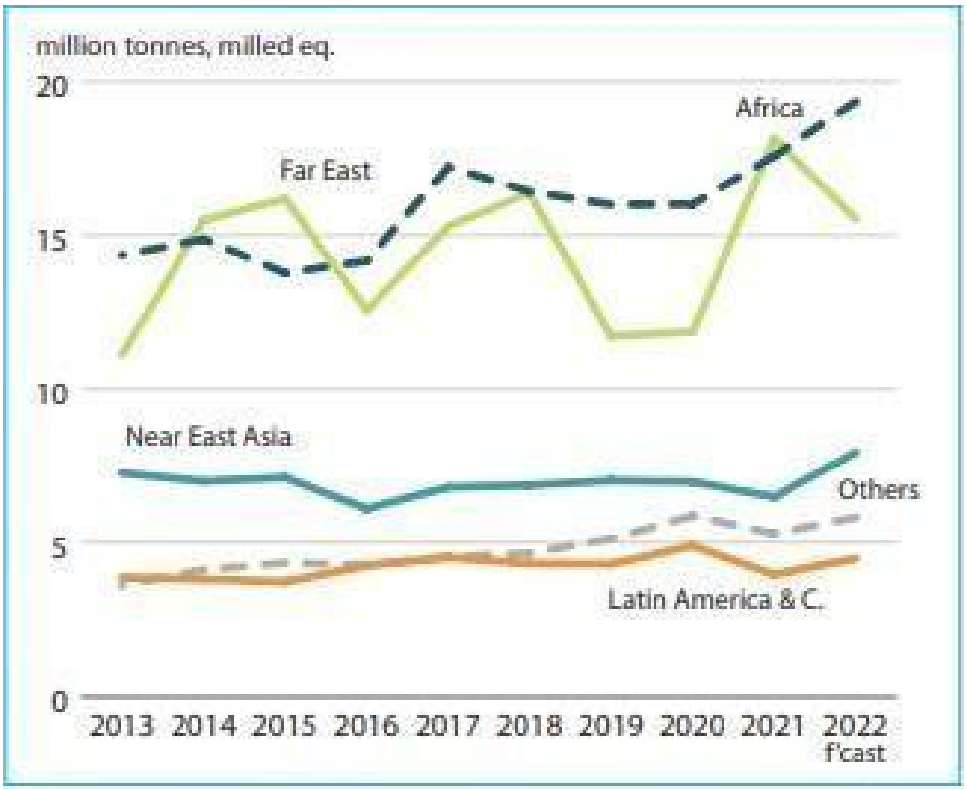

Figure 1: Chart of rice imports worldwide in 2013 - 2022. Sumber: FAO 2022

The volume of rice traded globally is predicted to reach 53.1 million tonnes in 2022 (January–December), up 3.0% from the record high set in 2021. This will mark the third consecutive year of growth in the trade of rice internationally. Most regions are expected to see a rise in imports during the year, with the exception of Far East Asia, frequently helped by the nation's efforts to control inflationary pressures. These actions have included government- initiated import contracts, as has been particularly the case in Iraq and the Islamic Republic of Iran, or the remission of import duties in a number of Latin American and African nations. Instead, a greater demand for aromatic types and a partial relaxation of container freight costs are anticipated to be associated with the growth in imports into the Uand the EU. This came after their previous purchases were delayed by less years due to logistical issues and skyrocketing container prices.

In contrast, low production is associated with the expected increase in imports by South American nations like Brazil, Chile, Peru, and Colombia; in the case of Brazil, this relationship may be reinforced by a recovery in the value of the Brazilian real. Ghana and Haiti, whose current national currency weakness may restrict purchases, as well as Guinea and Madagascar, where a wave of purchases made last year combined with a good domestic harvest may lessen the need for imports, are notable exceptions to the general trend of strengthening demand in various regions. The total amount of imports from the Far East is predicted to reach 15.5 million tonnes, a 14.4% annual decline. Due to improved supply circumstances and rising domestic output, Bangladesh's import prospects within this sub-region are somewhat muted. Its acquisitions could decline from 2.6 million tonnes in 2021 to just 200,000 tonnes this year. Though Vietnam, a significant rice exporter, may be able to meet its feed and industrial demands with vast stocks of low-quality rice piling up from record imports last year, purchases by the country might potentially decline by almost half in 2022. Adhesives are also readily available in adequate quantities, following a predicted 3.7 percent decline in imports from China (mainland) to 4.9 million tonnes. Even at that level, adhesive supply is expected to remain high because lower grades imported from outside are so attractively priced. It is anticipated that, in comparison to other Asian importers, Philippine imports will remain relatively stable at 3.0 million tonnes overall, while purchases from Malaysia and Nepal may rise in the face of a stagnant or declining local output. On the other hand, the biggest rise in imports from the Far East is anticipated to occur in Sri Lanka, where purchases may hit a five-year high of 600,000 tonnes, helped by state purchases made overseas to make up for a decline in local production caused by inputs.

The export prognosis for Cambodia, India, and Vietnam is clouded by expectations of decreased demand at major East Asian outlets. These countries, along with Argentina and the United States, may conclude 2022 with weaker exports. Even yet, with an estimated 20.1 million tonnes, India's shipments are still anticipated to be significantly higher than pre-2021 levels because of their abundant supply, which should be more than enough to fulfil rising local consumption demands and sustain significant exports. It permits India to continue being the world's largest exporter of rice, with Thailand coming in second. Thailand may be able to reclaim some of the market share it has lost since 2018. In fact, following a year hampered by logistical issues and/or uncompetitive pricing Finally, sales of Thai rice were expected to hit 8.1 million tonnes, a four-year high. With limited Japonica availability in their primary medium grain competitor, the United States, exports by Uruguay, Pakistan, and Myanmar are also expected to see a significant uptick in 2022. This is partly due to projections of higher sales by Australia and China (mainland).

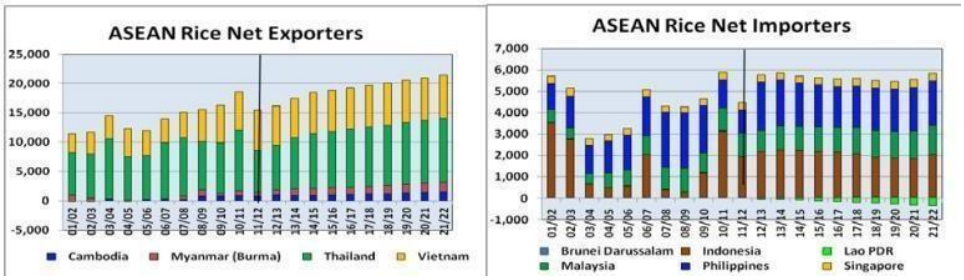

Figure 2: Rice Export and Import Chart in the Southeast Asia Region. Source: ADB, 2022.

The price of rice on Thai exports and programme restrictions connected to flooding were the main causes of the 16.6% decline in ASEAN's net rice exports in 2011 over 2010 levels. In excess of the baseline, it is anticipated that ASEAN's aggregate net rice exports will increase by 3.3% annually, from 15.5 million tonnes in 2011 to 21.5 million tonnes in 2021. As of now, ASEAN's net rice exports make up 53.3% of the world's entire volume; by the end of this decade, that percentage will rise to over 54.8% of the baseline. Together, ASEAN members Thailand and Vietnam, two of the top five global exporters of rice, account for 48.0% of net exports worldwide.

Thailand is predicted to continue to be the leading exporter of rice above the baseline, despite the fierce competition it currently faces from other significant exporters, primarily India. The baseline makes the assumption that Thailand will use government-to-government sales to split the cost of its exports in order to make up for export losses brought on by the rice price guarantee programme. However, India is expected to overtake Vietnam as the world's second-largest exporter of rice. With ample land and water resources, Cambodia and Myanmar have tremendous potential to increase rice exports. However, tradegrowth will be contingent upon both nations' capacity to develop the institutional backing and infrastructure required for higher export quantities in a sustainable way. There is an immediate need for more certified rice seed production as well as expenditures to raise output and improve milling quality. To lower the cost of delivering ex-mill exports to ports, transport infrastructure must also be created. The baseline projections for rice export expansion trajectories compare Cambodia and Myanmar. Additionally, the Lao People's Democratic Republic (Lao PDR) may be able to boost its rice exports again, contingent upon the nation's capacity to carry out institutional and infrastructure development successfully. It is anticipated that Indonesia and the Philippines would continue to reap the rewards of their efforts to become self-sufficient in rice, with yields rising mostly as a result of increasing usage of high-yielding hybrids and some growth in planted areas. Nonetheless, it is anticipated that these two nations—the Philippines, which is ranked second globally, and Indonesia, which is ranked third will continue to be the biggest importers of rice in the ASEAN area, accounting for 11.6% of global import volume during this base period. Population growth

is the primary driver of demand growth because there is now little chance of creating new rice production areas. The idea that Indonesia and the Philippines will eventually need to maintain relative safety stock levels based on past experience usually denoted by an equivalent number of days of consumptionis another factor taken into account in the predictions.

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Annual Percent Growth
						Thousand Hectares							
Area Harvested	157,935	158,741	159,998	159,961	159,947	160,369	160,460	160,512	160,336	160,477	160,738	160,637	0.15%
						Metric Tons per Hectare							
Yield	2.83	2.92	2.93	2.96	2.99	3.01	3.03	3.06	3.08	3.10	3.12	3.14	0.97%
						Thousand Metric Tons							
Production	446,493	463,280	468,988	473,794	477,790	483,218	486,832	491,195	494,131	497,703	502,175	504,901	1.12%
Beginning Stocks	95,231	98,769	102,017	104,685	107,956	111,642	116,520	120,304	124,108	126,611	128,469	129,876	2.86%
Domestic Supply	541,724	562,049	571,005	578,479	585,745	594,860	603,352	611,498	618,239	624,314	630,644	634,777	1.45%
Consumption	445,652	460,119	466,613	470,827	474,427	478,649	483,364	487,717	491,949	496,171	501,084	504,634	1.14%
Ending Stocks	98,769	102,017	104,685	107,956	111,642	116,520	120,304	124,108	126,611	128,469	129,876	130,473	2.56%
Domestic Use	544,421	562,136	571,298	578,782	586,069	595,169	603,668	611,824	618,561	624,640	630,960	635,107	1.41%
Trade	34,330	32,943	35,462	37,355	38,046	39,171	39,786	40,350	40,806	41,305	41,848	42,314	1.92%
						Percent							
Stocks-to-Use Ratio	22.16	22.17	22.44	22.93	23.53	24.34	24.89	25.45	25.74	25.89	25.92	25.85	

Figure 3: Table of Global Rice Supply and Utilization Year 2011 - 2022. Source: ADB, 2022.

Global rice output is expected to rise by 1.12% each year over the next ten years, with 0.97% of the growth coming from higher yields and 0.15% from a little increase in harvested area (Table 2). It is anticipated that the harvested area will rise by over 2 million hectares, resulting in a rice yield of approximately 505 million tonnes by 2021. Global rice consumption will increase by 1.14% yearly due only to population growth, while per capita consumption would slightly decrease. It is anticipated that in 2021, the usage share ratio will rise from 22% in 2011 to 26%. Due to the country's self-sufficiency in rice, the adoption of high-yield hybrids and other advancements in production technology, as well as the country's increased focus on rice consumption, it is anticipated that international prices will gradually fall. Net commerce is predicted to increase annually by 2.27% with decreasing prices. The nations that account for the majority of the predicted net import demand for rice, namely Nigeria, Indonesia, the Philippines, Iran, and Bangladesh, account for 29.10% of the total; the remaining 17.7% come from Iraq, Saudi Arabia, Malaysia, the European Union (consisting of 27 member states), and Ivory Coast.

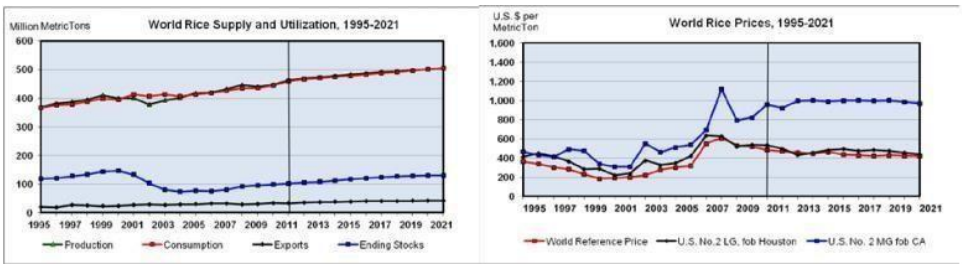

Figure 4: Graph of World Rice Supply and Prices 1996 - 2021. Source: FAO, 2022.

In relation to rice prices from the perspective of food security, it is important to know what causes rice price volatility and its effects on rice trade. In the developing countries of Southeast Asia, rice has a major contributionto the daily diet. A further increase in the price of rice could stimulate pressure on inflation and reduce people's purchasing power. Therefore, the government carried out many policies in the form of intervention in the rice market to maintain the stability of rice and food prices in general. Domestic rice policies in the world's main riceexporters and importers will ultimately affect the volatility of rice prices on world markets in the short term.

Discussing food security among Southeast Asian countries requires attention not only to macroeconomic issues(such as economic growth, market resilience, the effect of loan repayment, the actual infrastructure and organisations for food distribution), but also problems with agricultural productivity, specialisation, and diversification, as well as rural impoverished households' food budgets. The three countries of Laos, Cambodia, and Myanmar have the worst food security issues, including poverty and malnutrition. Despite not being agricultural nations, Brunei Darussalam and Singapore, on the other hand, comparatively do not experience issues with food security. Malaysia, the Philippines, and Indonesia are nations experiencing rapid economic and trade expansion, making macroeconomic stability issues more likely to affect them overall than food security issues specifically. Meanwhile, Vietnam and Thailand are currently food exporters and are starting to shift towards diversifying trade in food and agricultural products.

Source: References to WTO Trade Policy Reviews in International Trade Strategies Pty Ltd and the Center for Food and Agri-Business of the University of Asia and the Pacific

From the table above it can be seen that the countries in ASEAN are working together to forma rice reserve (ASEAN Plus Three Emergency Rice Reserve or APTERR) so that the rice stockis maintained and does not cause panic in the community. This institution was established by the Ministry of Agriculture and Forestry of China, Japan and South Korea to secure food security in emergencies caused by disasters, through the provision of food aid and nutrition improvement programs to the poor.

5. Conclusions

Rice is an essential staple food for people in Southeast Asia. Therefor rice imports are still carried out by countries. Economic integration through AEC is a momentum to realize food security at the regional level.When the rice market is more open (no trade barrier) between Southeast Asian countries, each country willincrease the specialization of rice trade based onthe support of its natural resources and world supply chains.Clear

Table 1: Government Intervention in Rice Trade in the Southeast Asia Region related to Food Security.

Country	Commodity	Government Policy Intervention
Singapore	Rice	Rice imports are carried out in 2 categories, namely *stockpiles* and *ordinary licenses* . *Stockpile licenses* to maintain ricestocks of twice the amount imported, stored in warehouses, andstorage costsare borne by importers. Meanwhile, *the ordinary license* is for non-stock rice.
Brunei Darussalam	Rice	There is no obstacle to importing rice.
Thailand	Rice, cassava, durian, longan	Export requires registration from the Ministry of Agriculture.
Malaysia	Rice	Providing input subsidies, reducing tariffs, and support-ingminimum prices.
Indonesia	Rice	The market price is intervened through Bulog by settinga base price to protect farmers and the domestic price of rice to protect consumers.
Philippines	Rice	Procure and distribute through a buffer stock system and price support.
Cambodia	Rice	Manage rice seed bank and provide rice seeds, distribute diesel fuel, and buy paddy to farmers.
Vietnamese	Rice	Export quotas for rice and fertilizer are controlled.
Myanmar	Rice	Achieving a surplus of rice production.
Laos	Rice	There is no food security policy explained.

food political support and research and development and research on global issues for food development are an essentialpart. The need for rice in the Southeast Asian region can be met through access to the flow of trade in rice from countries with a surplus, such as those in the peninsular regions of Southeast Asian countries, to countries with more limited natural resource support, such as island areas in Southeast Asian countries.

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