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HARMONIZATION OF RICE PRODUCTION POLICY AND RICE TRADE POLICY IN INDONESIA

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Abstract: Indonesia is the world's fourth most populous country, trailing only China, India, and the United States, with a population of 276,361,788 people. Efforts to fulfill the demand for rice as a staple food are concerning. The policies established by the Ministry of Agriculture and the Ministry of Trade do not match. The Ministry of Agriculture carries out a pro-rice production policy. The Ministry of Trade carries out a pro-rice import policy. This study included both descriptive and quantitative analysis. The type of data used in this research is annual time series secondary data with a research period from 1980 to 2020. The model used in this study was developed using the Two Stage Least Squares (2SLS) approach. The results showed that the Ministry of Agriculture's goal was to boost output, but this might lead to overstock and consequently reduce rice prices, according to the Ministry of Trade. The Ministry of Trade's rice import policy has always been withheld by the Ministry of Agriculture because, according to the Ministry of Agriculture, imports will lower the rice price, reducing farmers' income. This shows that production and trade policies are not well-suited. Production policies, with an average annual increase of 2%, outperform trade policies, with an average annual increase of 141%.

Keywords: rice, food, production policy, trade policy, harmony

Abstrak: *Indonesia menduduki peringkat ke-empat sebagai negara dengan jumlah paling besar di dunia setelah China, India, dan Amerika Serikat dengan jumlah penduduk sebanyak 276,361,788 jiwa. Upaya pemenuhan kebutuhan beras sebagai bahan pokok merupakan permasalahan yang menjadi perhatian. Kebijakan yang dibentuk oleh Kementerian Pertanian dan Kementerian Perdagangan tidak sinergi satu sama lain. Kementerian Pertanian melakukan kebijakan pro produksi beras sedangkan Kementerian Perdagangan melakukan kebijakan pro impor beras. Analisis yang digunakan dalam penelitian ini terdari dari analisis deskriptif dan analisis kuantitatif. Jenis data yang digunakan dalam penelitian ini adalah data sekunder time series tahunan dengan rentang waktu penelitian dari tahun 1980 sampai 2020. Metode penggunaan model yang digunakan dalam penelitian ini adalah Two Stage Least Squares (2SLS). Hasil penelitian menunjukkan bahwa tujuan Kementerian Pertanian adalah untuk meningkatkan produksi, tetapi menurut Kementerian Perdagangan hal ini dapat menyebabkan kelebihan stok beras dan akibatnya menurunkan harga beras. Kebijakan impor beras yang dilakukan oleh Kementerian Perdagangan selalu ditentang oleh Kementerian Pertanian karena menurut Kementerian Pertanian, importase beras akan menurunkan harga beras sehingga dapat menurunkan pendapatan petani. Hal ini menunjukkan bahwa kebijakan produksi dan perdagangan tidak serasi. Kebijakan produksi dengan peningkatan rata-rata sebesar 2% setiap tahun memiliki pengaruh yang lebih baik dari kebijakan perdagangan dengan peningkatan rata-rata sebesar 141% setiap tahun.*

Kata kunci: *beras, pangan, kebijakan produksi, kebijakan perdagangan, keserasian*

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INTRODUCTION

Indonesia is a country with a fairly large population. According to the publication of the World Bank (2021), Indonesia ranks fourth as the country with the largest number in the world, with a population of 276,361,788 people. Rice is a staple food for Indonesians (Harianto, 2019). Food security is closely related to meeting the demand for rice products because rice is the main food consumed by the Indonesian people (Syahnur and Noviar, 2011). According to Rachmaningsih (2012), the realization of food security has three important pillars that must be considered. The pillar of availability is the physical availability of food throughout Indonesia which is obtained from domestic production, imports, trade, and assistance. The ability of all Indonesian households to receive sufficient food, whether through self-production, purchases, barter, gifts, credit, and food assistance, or a combination of the five, is the accessibility pillar. The consumption pillar refers to the utilization of food by all households and also each individual's capacity to consume food and absorb nutrients.

The policy of increasing production and stabilizing rice prices is related to non-price and price policies. The government encourages increasing rice production through a non-price policy by introducing superior rice varieties, fertilization, eradicating pests and diseases, improving irrigation, and improving farming techniques. However, non-price policies are not enough to encourage farmers to increase production because the price of grain and rice at the farm level is often below production. Therefore, the government combines it with price policy (Amang and Sawit, 1999; Sawit et al. 2001). The policy on the price of grain or rice for producers can be implemented through procurement and distribution mechanisms. The distribution of purchased rice will be hampered if the quality of the grain/ rice is low (Ellis, 1993; Puspoyo, 2006). The quality of grain and rice is one of the keys to the competitiveness of the domestic rice industry (Sawit, 2008); therefore, it is necessary to formulate a pricing strategy and other supporting incentives to enhance this connection to strengthen the rice/rice industry sector (Sawit 2008; 2009).

The objectives of the rice economy are (1). Controlling the inflation rate, (2). Domestic price stabilization, (3). Increase farmers' income, (4). Increase food sufficiency, (5). Improve nutritional requirements (Rasahan, 1983; Toemec and Robinson, 1990; Simatupang and Rusastra, 2004). The availability of sufficient rice in sufficient quantities from national production is an important factor in increasing national food security (Puspoyo, 2006). Indonesia has two options for meeting the community's rice needs: increase production such that rice self-sufficiency is achieved or import rice. (McCulloch and Timmer, 2008).

Imports are the movement of certain commodities and services into a country's market for consumption, capital goods, or raw materials for domestic manufacturing. Imports are intended to encourage the growth of the country's industrial activities. Dependence is a trap that must be removed by the government, especially on rice imports, because rice is the primary need of the community (Pujitiasih et al. 2014). The dependence on rice imports can be seen by using the Import Dependency Ratio (IDR). A larger import rupiah value indicates a higher dependence on imports. Dependence on rice imports can also be seen using the Index of Trade Specialization (ISP) and Self-Sufficiency Ratio (SSR) with multiple levels. IDR and ISP will show a country's dependence on imports (Pujitiasih et al. 2014), while SSR can show how well domestic rice production can meet rice consumption needs (Ministry of Agriculture, 2018). The smaller the SSR value, the greater the food insecurity, which is not good for the economy and food security (Luan et al. 2013). Indonesia's dependence on rice imports was 3.5% from 1992-2017. This number shows that 3.5% of the total rice in the Indonesian market is imported rice. The value of Indonesia's Index of Trade Specialization (ISP) of -0.9 per year shows that Indonesia is a country that imports rice and has very low competitiveness in rice products. Indonesia's rice production from 1992-2017 is considered quite capable of meeting the rice food needs of the Indonesian people, with a Self-Sufficiency Ratio (SSR) value of 96.6% per year (Sahrul, 2020).

The concept of agricultural development is expected to increase farmers' productivity and economic status (Lase and Lestari, 2020a). However, the fact is that Indonesia, as a developing country, still has problems, especially in the food sector (Lase and Lestari, 2020b), Indonesia before becoming a rice-importing country had a national consumption level of 25 million tons in 1984-1986, with a surplus of 2 million tons. Several countries have begun adopting technological innovations to improve farmer welfare, agricultural productivity, and the food sector economy (Chavas and Nauges, 2020).

According to Astuti (2016), 1985-1988 was the lowest rice import, with an average of 37.3 thousand tons per year, whereas in 1984 Indonesia succeeded in achieving rice self-sufficiency. The achievement of food self-sufficiency is due to investment in the construction of irrigation infrastructure, subsidies, and procurement of production facilities (seeds, fertilizers, and pesticides) up to the farmer level, price policy, and rice trading system as well as the provision of subsidized credit (Rosegrant et al. 1998). In the long term, Indonesia's food security has not been strong enough, especially in the face of problems of poor harvests and economic instability both internally and externally, with far-reaching effects, especially on poverty in rural areas (Ravallion and Van de Walle, 2008).

Imports are government-mandated purchases of items from abroad in foreign currency. The reason for a country to import is because the country has failed to meet domestic needs (Husna, 2010). According to Clapp (2017), imports are carried out to ensure food sufficiency or maintain food security whose purpose is to maintain food stocks in the event of a natural disaster or conflict, so that if Indonesia experiences a surplus of rice, Indonesia still must import to maintain stock and to meet demand. Rice that is not produced in Indonesia. Changes in a country's income level will bring about additional imports, the increasing income of a country will increase imports, and a decrease in income will result in a decrease in imports (Safitri, 2017). The Indonesian government, since independence, has decided to keep rice prices stable as one of the main objectives of its economic policy (Dodge and Gemessa, 2012).

The participation of the Ministries of Agriculture and Trade in supplying rice demands has caused several debates. The Ministry of Agriculture strives to increase national rice production to achieve food security, while the Ministry of Agriculture continues to import to maintain rice price stability. The government encourages efforts to fulfill rice as the main food of the Indonesian people through rice policies established by the National Food Agency (NFA), the Ministry of Agriculture, and the Ministry of Trade. To fulfill Indonesia's rice food stocks, the Ministry of Agriculture supports increasing rice production to attain food self-sufficiency, while the Ministry of Trade conducts rice import activities.

This study is based on researchers' concerns because Indonesia still imports rice despite being an agricultural country. In a simultaneous equation model, this research attempts to combine production policy, which is the authority of the Ministry of Agriculture and aims to increase rice production, and trade policy, which is the authority of the Ministry of Trade and aims to stabilize domestic rice prices. The model can explain the compatibility of rice policies. The advantage of using this model is that simulations of production and trade policies can explain the impact of each policy instrument and policies that have a greater impact on the availability and price of domestic rice.

There has never been any research into the compatibility of rice policies in Indonesia between 1980 and 2020. Previous research by Ilyas (2020) examined policies aimed at increasing rice availability, Rahayu (2021) investigated the development of rice production and rice imports in Indonesia, and Azzahra (2021) investigated the factors influencing rice imports in Indonesia between 2001 and 2019. This research aims to examine the compatibility of production policies and rice trade policies in Indonesia. The specific goal of this research is to examine the impact of policies aimed at increasing rice production on rice prices and availability and examine the impact of rice trade policies on rice prices and availability.

METHODS

The data type used in this study is secondary annual time series data with a research period from 1980 to 2020. The data in this study were obtained from several agencies, namely the *Badan Pusat Statistik* (BPS), *Badan Usaha Logistik* (Bulog), Ministry of Agriculture, Bank Indonesia, the World Bank, and FAO (Food Agricultural Organization). This research was conducted in October 2022. The method of using model used in this study is Two Stage Least Square (2SLS). Data processing was carried out using Microsoft Excel and STATA version 14 software.

The analysis uses an econometric model written as a simultaneous equation system. Equations are built using endogenous variables and exogenous variables. Endogenous variables are variables whose values are determined within the system, while exogenous variables are those determined outside the system and affect endogenous variables (Intriligator, 1978). The econometric model is a description of the relationship of each explanatory variable to the endogenous variables

(dependent variables), especially those concerning the sign and magnitude (magnitude and sign) of the alleged parameters by theoretical expectations a priori (Koutsoyiannis, 1977). Regression equations that use economic time series data, which are mostly trending over time, will produce significant results with a high R^2 value, but can be negligible or give spurious results (Granger and Newbold, 1974). The impact of production policies and trade policies is obtained by calculating the variables of rice availability and Indonesian retail rice prices.

$$SDBR_t = PBR_t + IMBR_t + LSBR_{t-1} + KBRTOT_t - XBR_t$$
$$HMBR_t = a_0 + a_1 HMBRR_t + a_2 LSPBR_{t-1} + a_3 KBRTOT_t + a_4 HMBR_{t-1} + a_5 Trend + u_t$$

where: $HMBRR_t$ (Rice import price per year (USD/kg)); MBR_{t-1} (Domestic rice price lag per year (Rp/kg)); $HMBR_t$ (Domestic rice price per year (Rp/kg)); $IMBR_t$ (Rice import quantity per year (000 tons)); $KBRTOT_t$ (Rice consumption total per year (000 tons)); $LSBR_{t-1}$ (Domestic rice stock lag per year (000 tons)); PBR_t (Rice production per year (000 tons)); $SDBR_t$ (Domestic rice availability per year (000 tons)); XBR_t (Rice export per year (000 tons)); u_t (error term).

A national rice economic policy must consider the needs of farmers and consumer groups. Each of these groups has a wide range of interests. The farmer group wants a high price, while the consumer group wants a low price. The Ministry of Trade ensures rice availability through rice imports, price setting, and marketing (*tataniaga*). The Ministry of Agriculture continues to encourage farmers to increase domestic rice production by providing fertilizer subsidies, affordable seed prices, and increasing the area of agricultural land and irrigation provided by the government for farmers to increase rice production. The following hypotheses were tested in this study: Production Policy (Production Policy is capable of increasing domestic rice production to ensure adequate rice availability in Indonesia. The lower the price of domestic rice, the more rice is available); Policy on Imports (The import policy was successful in keeping rice prices stable. Domestic rice prices typically rise during the famine season due to a decrease in the amount of rice produced, necessitating rice imports to keep domestic rice prices stable).

Production and trade policies are expected to complement each other in meeting Indonesia's rice needs, maintaining the stability of the Indonesian rice market, and protecting farmers' and consumers' prices. However, because these policies have not worked flawlessly, the end result of this research is expected to produce policy recommendations based on the results of processing the already available data (Figure 1).

RESULTS

Overview of Rice Commodities in Indonesia

Production, imports, and rice consumption are always changing from 1980-2020. Based on data from BPS (2021), the trend of domestic rice production is always increasing. Rice production can meet domestic consumption, but Indonesia still imports rice. The development of rice imports from 2007-2018 fluctuated and increased (Rahayu, 2021). A prolonged drought caused the decline in rice production. The population affects rice imports and rice consumption in Indonesia (Azzahra, 2021; Ariska, 2021). Rice production does not affect rice imports in Indonesia. Changes in the total amount of rice production, imports and consumption in 1980-2020 are presented in Figure 2.

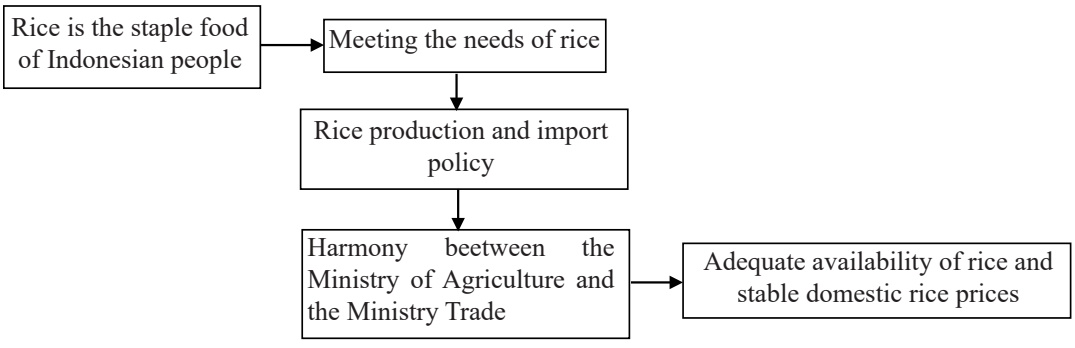

Figure 1. Research framework

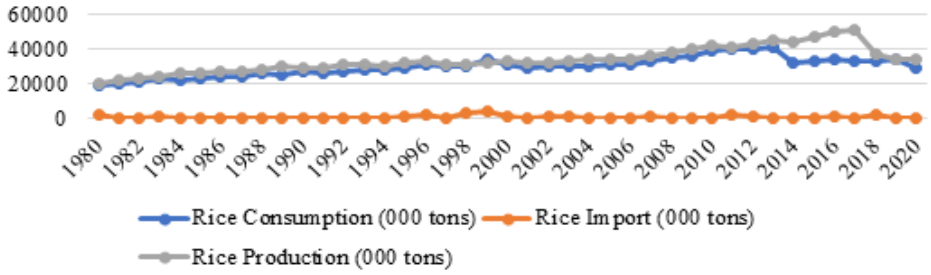

Figure 2. Development of changes in production amount, imports, and annual rice consumption (1980-2020)

Impact of Production Policy and Trade Policy

The impact of production policies and trade policies consists of three structural equations. These structural similarities are related to rice availability and Indonesian retail rice prices. The results of data processing of rice availability are presented in Table 1.

The results of the estimation of rice availability show that of the five explanatory variables used in the equation, two variables significantly affect the level of = 0.05, namely rice production and rice imports. Rice production has a significant positive effect on rice availability with an estimated parameter coefficient value of 0.941. This indicates that changes in rice output of one ton affect rice availability by 0,941 tons. According to the elasticity value, the reaction of rice availability to changes in rice production is unresponsive in the short term (0.916) and responsive in the long term (15.732) (elastic). The estimation results are in line with the results of research conducted by Pratama (2018) where rice production has a positive effect on rice availability.

The amount of rice imports has a significant positive effect on the availability of rice with the estimated parameter coefficient value of 0.189. This means that an increase in the number of rice imports by 1 ton will increase the availability of rice by 0.189 tons. Based on the elasticity value, the response of rice availability to changes in the number of rice imports is unresponsive with an elasticity value of 0.0005 in the short term and 0.0005 in the long term (inelastic). The estimation results are in line with the results of research conducted by Pratama (2018) where rice imports have a positive effect on rice availability.

Rice consumption significantly affects Indonesian retail rice prices with an estimated parameter coefficient value of 0.965. This means that a change in rice consumption of 1 ton will affect the Indonesian retail rice price of Rp 0.965/kg. Based on the elasticity value, Indonesian retail rice prices respond to changes in rice consumption with an elasticity value of 6.754 in the short term and an elasticity value of 197.328 in the long term (elastic). The estimation results are in accordance with the results of research conducted by Setiawan (2017), where rice consumption positively affects retail rice prices.

Rice import prices significantly positively affect Indonesian retail rice prices with an estimated parameter coefficient value of 0.096. This means that an increase in the import price of rice by 1 ton will increase the retail price of Indonesian rice by Rp 0.096/kg. Based on the elasticity value, the response of Indonesian retail rice prices to changes in rice import prices is unresponsive with an elasticity value of 0,459 in the short term (inelastic) and responsive with an elasticity value of 13.205 in the long term (elastic). The estimation results are in accordance with the results of research conducted by Setiawan (2017) where the price of rice imports positively affects retail rice prices.

The availability of rice in the previous year had a significant negative effect on Indonesian retail rice prices with an estimated parameter coefficient value of -0.936. This means that the change in the availability of rice in the previous year by 1 ton will reduce the retail price of Indonesian rice by -Rp 0.936/kg. Based on the elasticity value, the response of Indonesian retail rice prices to changes in rice availability in the previous year was responsive with an elasticity value of -7.560 in the short term and an elasticity value of -3.904 in the long term (inelastic). The estimation results are in accordance with the results of research conducted by Setiawan (2017) where the availability of rice in the previous year positively affects retail rice prices.

Table 1. Results of 2SLS data processing of impact of production trade policy

	Variables	Coef.	Elasticity		P >|Z|
			SR	LR	
Rice Availability	Rice Production	0,9417638	0,916194674	15,73239109	0,000*
	Rice Import	0,189366	0,000514133	0,000524057	0,000*
Indonesian Retail Rice Prices	Rice Consumption	0,9657685	6,754835615	197,3280638	0,041*
	Rice Import Price	0,0965207	0,459470406	13,20582892	0,004*
	Rice Availability Lag	-0,9362258	-7,560055418	-3,904531909	0,002*
	Rice Price Lag	0,7413387	0,706795795	2,732514663	0,000*

Note: * has a significant effect on the level of significance = 0,05

The previous year's rice price significantly positively affected Indonesian retail rice prices with the estimated parameter coefficient value of 0.741. This means that an increase in the price of rice in the previous year by Rp 1/kg will increase the price of Indonesian retail rice by Rp 0.741/kg. Based on the elasticity value, the response of Indonesian retail rice prices to changes in rice prices in the previous year was unresponsive with an elasticity value of 0.706 in the short term (inelastic) and responsive with an elasticity value of 2.732 in the long term (elastic). The estimation results are in accordance with the results of research conducted by Setiawan (2017) where the price of rice in the previous year positively affects retail rice prices.

Simulation Analysis of Rice Policy Impact

Simulation of the impact of production policies and trade policies using a Dummy Variable. The data used is a time series with a time of 2004-2020. The results of the analysis of the simulation data on the impact of the rice policy are presented in Table 2.

The simulation of the impact of policies on rice availability is calculated from the influence of policy instruments, namely production policies and rice import policies. This policy instrument strengthened its influence on the availability of rice using a dummy variable and an interaction dummy. The results of data processing show that production policies have a significant positive effect on rice availability with an estimated parameter coefficient value of 0.951 in the addition of the dummy variable and 0.971 in the addition of the interaction dummy variable. This means that the addition of 1 ton of rice production will affect the addition of 0.971 tons of rice availability. The results of import policy data processing have a significant positive effect on rice availability with an estimated parameter coefficient value of 0.020 in the addition of the dummy variable and 0.020 in the addition of the interaction dummy variable. This means that the addition of rice imports by 1 ton will affect the additional availability of 0.020 tons. These results are supported by the results of research conducted by Ilyas (2020), where this study states that rice production and imports have a positive effect on rice availability.

The simulation of the impact of policies on domestic rice prices is calculated from the influence of policy instruments, namely production policies and rice import policies. This policy instrument strengthened its influence on domestic rice prices using a dummy variable and an interaction dummy. The results of data processing do not show that the effect of import policies on domestic rice prices is significant at the level of $\alpha = 0.05$. Production policy has a significant positive effect on domestic rice prices with an estimated parameter coefficient value of 0.509 for the addition of the dummy variable and 0.646 for the addition of the interaction dummy variable. This means that a change in the amount of production of 1 ton will affect changes in domestic rice prices of Rp 0.646/kg.

Harmony of Production Policy and Import Policy

The Ministry of Agriculture and the Ministry of Trade has always been in conflict with regard to Indonesia's rice policies. The Ministry of Agriculture always prioritizes increasing rice production, but according to the Ministry of Trade, this could result in oversupply, so rice prices will fall. When production declines and causes rice prices to rise, the Ministry of Trade will propose rice imports to lower prices and keep them stable (Purbiyanti, 2017). The Ministry of Agriculture will detain this because, according to the Ministry of Agriculture, farmers are getting big profits from the results of their farming.

Table 2. Results of data processing simulation analysis of the impact of rice policy

	Variables	Coef.	Coef. (Dummy Variable)	Coef. (Interaction Dummy)
Rice Availability	Rice Production Policy	0.945*	0.951*	0.971*
	Rice Import Policy	0.020*	0.020*	0.020*
Indonesian Retail Rice Prices	Rice Import Policy	0.399*	0.165	0.118
	Rice Production Policy	0.399*	0.509*	0.646*

Note: * has a significant effect on the level of significance = 0.05

The uneven amount of rice produced by several regions in Indonesia has resulted in a rice deficit in various regions. The rice deficit that occurred caused rice prices to rise in various regions. The high price of rice in various regions is an indicator for the Ministry of Trade to import rice. Rice imports are more effective as a solution to meet the needs of deficit areas compared to distributing rice from production centers to rice deficit areas. Imports are expected to suppress and keep rice prices stable. The high price of domestic rice is detrimental to farmers. According to (McCulloch, 2008), most of the population are rice consumers, not rice producers, so the high domestic rice price will harm the population who are rice producers/farmers. Farmers are both producers and consumers of rice.

The import of 500.000 tons of rice in January 2018 violated the Decree of the Minister of Industry and Trade Number 9/MPP/Kep/1/2004 for carrying out import activities during the main harvest period. Import violations did not only occur in 2018. These violations occurred because of laws that facilitated the implementation of imports. Import violations occur because the timing of import planning until rice arrives at Indonesian ports is not right. In addition, written regulations on rice imports are less effective. Rice is not only an economic commodity but a political commodity. This causes the Ministry of Agriculture and the Ministry of Trade to be incompatible.

Since 2021, the government has established the National Food Agency (NFA) based on Presidential Regulation No. 66 of 2021. According to Presidential Regulation Number 66 of 2021 Article 28, the Ministry of Trade delegates authority to NFA in terms of policy formulation and determination of food price stabilization and distribution policies as well as policy formulation and determination of food export and import needs. Meanwhile, the Ministry of Agriculture delegates its authority to NFA in terms of policy formulation and determination of the amount of government food reserves to be managed by State-Owned Enterprises in the food sector as well as policy formulation and determination of Government Purchase Prices and price fractions. Article 29 stipulates that the Ministry of SOEs authorizes NFA in the assignment of Bulog as the executor of the national food policy. The current rice policy issued by NFA is National Food Agency Regulation No. 4 of 2022 concerning the distribution of government rice reserves in the context of supply availability and price stabilization for beneficiary families. NFA can integrate rice policies from the Ministry of Agriculture and the Ministry of Trade. The expected result of the existence of NFA is that rice prices will become more stable.

Managerial Implications

The success of production policies and trade policies is measured by the significance and magnitude of the coefficients of the models that serve as proxies for government rice production policies (fertilizer subsidies, seed subsidies, irrigation infrastructure improvements, agricultural land extensification, and the application of Government Purchase Prices (HPP)) on the availability and price of rice. in the domestic market) and a model that is a proxy for the government's rice trade policy (policy of limiting import quotas and import tariffs on the availability and price of rice in the domestic market) as evidenced by the value of the econometric calculation results of significance < 5%.

According to the simulation results of the impact of production policies and import policies on rice availability and domestic rice prices, production policy is more effective in maintaining rice price stability with a coefficient value of 0.646 and rice availability with a value of 0.971. Every year, the production policy was able to increase output by an average of 2%. The production policy was able to keep domestic rice prices stable and fulfill rice supply better than the import policy. According to the simulation results of the impact of

production and import policies on rice availability and domestic rice prices, rice import policy is less effective in maintaining price stability with an effect value of 0.118 and rice availability with an influence value of 0.020. Every year, the rice import policy has increased and decreased. The average change in imports of rice reached 141%. When compared to production policies, the impact of import policies is less significant.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Production policy is a policy that is more effective in maintaining rice price stability and rice availability compared to trade policy. The aim of the Ministry of Agriculture is to increase production, but according to the Ministry of Trade, this can lead to oversupply and, thus, lower rice prices. The Ministry of Trade's rice import policy has always been withheld by the Ministry of Agriculture because, according to the Ministry of Agriculture, imports will lower the price of rice so that it can reduce farmers' income. In addition, the legislation that was enacted contradicted the basic constitution of the 1945 Constitution. This indicates that production policies and trade policies are not in synergy. In addition, the Omnibus Law is also seen as making imports easier. However, the rice policy has become the authority of NFA, so production policies and trade policies are not contradictory because NFA has integrated them.

Recommendations

Food self-sufficiency can be achieved with technological updates to increase rice productivity, because it is proven by increasing rice productivity to increase rice production, increasing rice production will increase rice availability, when rice is abundant, rice prices in the domestic market become cheaper. Rice imports must be tightened so that farmers do not lose money. Import tariff policies must be changed, where import tariffs should be divided into import tariffs during the harvest season and import tariffs during famine. The government should make rice policies that support and protect farmers, not make it easier for corporations to import rice which will distort farmers. Indonesia can change from an importing country to a rice exporter.

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