



INDONESIA'S POLICY OF PALM OIL EXPORTS BANNED IN THE CURRENT WORLD ENERGY CRISIS

KEBIJAKAN LARANGAN EKSPOR MINYAK SAWIT INDONESIA DALAM KRISIS ENERGI DUNIA SAAT INI

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ABSTRACT

This paper aims to determine the impact of tariff and non-tariff barriers, the ban on exports of palm oil commodities, and the energy crisis due to the Russia-Ukraine war on the Indonesian and world economies. The research was conducted because it wanted to know the impact of the policies carried out by the Indonesian government as the largest producer of palm oil in the world and whether it produced a spillover effect on the economy. The objective is to examine the policies set by the government, namely tariff or non-tariff barriers, and their impact on trade. The Indonesian government implemented a policy banning palm oil exports from reducing the sharply rising local palm oil prices and meeting domestic demand. The policy was implemented in March 2022 and required further research to analyze its impact. This study used the GTAP database analysis tool in 2011. This study includes shocks in tariff and non-tariff barriers on palm oil commodities. The shock that was included to represent the energy crisis was a ban on exports and imports to Russia and a ban on food exports in Ukraine. The study results using the GTAP analysis tool, namely the determination of the export ban on palm oil commodities, had a positive impact, namely reducing the price of domestic palm oil, but the negative impact was the level of output, and the number of workers fell. Increasing export tariffs is not effective and increases domestic palm oil prices. Government policies that are carried out must ensure that domestic palm oil has stocks that meet consumption at affordable prices. The government must implement policies that protect consumers and producers of palm oil. Policies that the government can carry out are mitigating safety nets and distributing aid directly to affected society.

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INFO ARTIKEL	ABSTRAK
<p>Koresponden</p> <p>Alana Sabila <i>alanasabila@mail.ugm.ac.id</i></p> <p>Kata kunci: <i>pembatasan ekspor, krisis energi, GTAP</i></p> <p>Website: https://idm.or.id/JSER/index.php/JSER</p> <p>Hal: 189 - 199</p>	<p><i>Tulisan ini bertujuan untuk menentukan dampak dari hambatan tarif dan non-tarif, larangan ekspor komoditas minyak kelapa sawit, serta krisis energi akibat perang Rusia-Ukraina terhadap ekonomi Indonesia dan dunia. Penelitian ini dilakukan karena ingin mengetahui dampak dari kebijakan yang dilakukan pemerintah Indonesia sebagai produsen terbesar minyak kelapa sawit di dunia serta apakah kebijakan tersebut menghasilkan efek domino terhadap ekonomi. Tujuannya adalah untuk mengkaji kebijakan yang ditetapkan pemerintah, baik itu hambatan tarif maupun non-tarif, dan dampaknya terhadap perdagangan. Pemerintah Indonesia menerapkan kebijakan larangan ekspor minyak kelapa sawit untuk menurunkan harga minyak kelapa sawit lokal yang naik tajam dan memenuhi permintaan dalam negeri. Kebijakan tersebut diterapkan pada Maret 2022 dan memerlukan penelitian lebih lanjut untuk menganalisis dampaknya. Studi ini menggunakan alat analisis basis data GTAP pada tahun 2011. Studi ini mencakup guncangan pada hambatan tarif dan non-tarif terhadap komoditas minyak kelapa sawit. Guncangan yang dimasukkan untuk mewakili krisis energi adalah larangan ekspor dan impor ke Rusia serta larangan ekspor makanan ke Ukraina. Hasil studi menggunakan alat analisis GTAP, yakni penetapan larangan ekspor terhadap komoditas minyak kelapa sawit, memiliki dampak positif, yaitu menurunkan harga minyak kelapa sawit dalam negeri, namun dampak negatifnya adalah tingkat output dan jumlah pekerja menurun. Peningkatan tarif ekspor tidak efektif dan meningkatkan harga minyak kelapa sawit dalam negeri. Kebijakan pemerintah yang dilakukan harus memastikan bahwa stok minyak kelapa sawit dalam negeri memenuhi konsumsi dengan harga yang terjangkau. Pemerintah harus menerapkan kebijakan yang melindungi konsumen dan produsen minyak kelapa sawit. Kebijakan yang dapat dilakukan pemerintah adalah mitigasi jaring pengaman sosial dan pendistribusian bantuan secara langsung kepada masyarakat yang terdampak.</i></p> <p>Copyright © 2023 JSER. All rights reserved.</p>

PENDAHULUAN

The Indonesian government has banned the export of crude palm oil (CPO) and its derivative products in April 28, 2022. The government also provides sanctions for violators of the prohibition. The ban is one of the Indonesian government's steps to increase supply and reduce domestic cooking oil prices. This policy was carried out due to the increase in domestic palm oil prices, which reached 22,000 rupiah per liter. Although this policy impacts international consumers, the prohibition is essential to maintain domestic price stability. The ban is temporary until prices return to normal and targets a price reduction of IDR 14,000 per liter (Setkab, 2022).

This policy impacts the stability of world energy prices amid the Russia-Ukraine crisis. The war crisis between Russia and Ukraine caused an increase in the price of several food commodities, which triggered an increase in inflation in several countries. The United States and its allies prohibit imports and increase tariffs on imported products, namely crude oil, petroleum fuels, oils, iron, and steel. The United States and its allies also prohibit the export of goods and services originating from Russia (Akingump, 2022). Russia retaliated against sanctions imposed by the United States and the European Union by banning exports of goods and services such as cars, telecommunications, agricultural equipment, and electricity until 2022.

The world's vegetable oil trade is dominated by palm oil (50%), soybean oil, rapeseed oil, and sunflower oil. The increase in demand for palm oil in the world is caused by an increase in biodiesel production (biofuel) which uses palm oil as a raw material (fossil oil mixture). Palm oil is a substitute raw material for fossil fuels.

Indonesia is the highest importer of palm oil in the world. Palm oil for various products, including food, packaged goods, and cosmetics. Palm oil is a source of raw material for plastic products. The use of palm oil as a raw material for making butter, butter is one of the processed products from milk. Palm oil can also be used as biodiesel and a power plant. Palm oil is a raw material in the steel industry as a coating on steel and iron so that it is resistant to rust and corrosion. The ban on oil exports increases the costs of packaged food producers globally. The CPO export ban policy also impacts increasing world crude palm oil prices and their substitute products, namely olive oil, coconut oil, and canola oil.

In 2018, Indonesia stopped issuing new permits for oil palm plantations due to deforestation problems. The Palm Oil Industry Association (GAPKI) said it complied with the policy but objected to the government's move and asked to evaluate the policy (Reuters, 2022). Indonesia is the world's largest producer and exporter of palm oil globally. Indonesia's total palm oil production in 2021 will be 51.3 million tons. 65% of palm oil is for export, and the rest for local consumption, 18.42 million tons. So the ban on palm oil makes the domestic production stock abundant and impacts the decline in exports.

Indonesia's most prominent CPO export destinations are India, Pakistan, the United States, Malaysia, Bangladesh, China, Egypt, Russia, Spain, the Philippines, Myanmar, and Italy (BPS, March 2022). The Asian country, which is likely to feel the worst impact, is India because it is the largest importer of palm oil and has a high share of food expenditure. The impact of an increase in food prices will shock high-rise houses in the form of an increase in spending (Carnegie, 2022).

The policy of prohibiting the import of palm oil by the Indonesian government has raised various pros and cons. Other policies can reduce palm oil exports, one of which is to increase export tariffs. The government has implemented a policy of increasing the upper limit of the export levy on palm oil to US\$1,500 per tonne and the PE tariff imposed at US\$375 (Ministry of Finance Regulation, 2022). The increase in tariffs can affect Indonesia's export performance, and the impact can increase the government's foreign exchange earnings (Sinaga et al., 2020). Therefore, it is necessary to examine the impact of tariff and non-tariff policies carried out by the government at the time of rising palm oil prices and the world energy crisis.

This description raises the question of the impact of tariff and non-tariff policies on palm oil commodities in overcoming rising domestic palm oil prices during the world energy crisis and analyzing the impact of the policy shock imposed on the country's macroeconomic conditions consisting of GDP, trade balance, and welfare. In particular, it examines its impact on stabilizing food prices, exports, imports, commodity production, and labor demand. This study adopts the Computable General Equilibrium model to evaluate the effectiveness of tariff and non-tariff barriers on palm oil commodities carried out by the Indonesian government during the energy crisis Russo-Ukrainian war.

RESEARCH METHODOLOGY

This study uses GTAP (Global Trade Analysis Project) with a 2011 base database. The database consists of 57 industries, 5 factors of production, and 140 countries to analyze the impact of the ban on palm oil exports in Indonesia. To simulate the impact of the shock implemented by the government in the form of tariff and non-tariff barriers applied to the palm oil commodity using the GTAP-9A Model. According to Hertel (1997), the GTAP model is a comparative static analysis of multi-region and multi-sector with computable general equilibrium in the world economy. The use of the GTAP model to analyze the policy shocks of the Indonesian government was chosen because the GTAP model has several advantages. This model is a general analytical tool used to analyze problems related to the effects of trade due to shocks on government policies. Policy changes have consequences on trade and can be measured quantitatively. The GTAP model can accurately measure changes in welfare, GDP, the aggregate balance sheet, and other macroeconomic variables of the consequences of trade policy.

A change in policy in one sector will impact the economy (Rifin et al., 2020). Therefore, this study uses the GTAP model to analyze the impact of tariff and non-tariff barriers on palm oil products in Indonesia. The GTAP model can accurately measure changes in welfare, GDP, the aggregate balance sheet, and other macroeconomic variables of the consequences of trade policy.

The data aggregation is grouped into the countries and sectors studied, presented in Tables 1 and 2 in the appendix. Commodity aggregation is divided into 13 sectors, and country aggregation is divided into 11 studied regions (Tables 1 and 2). The baseline is the economic scenario according to the 2011 GTAP Database.

This study uses shocks in export bans and increases in palm oil commodity tariffs in Indonesia during the global energy crisis. The Indonesian government implements policies applied to palm oil commodities in terms of tariff and non-tariff barriers.

In the first scenario, the shock is a ban on palm oil exports in Indonesia to the Rest of the World (ROW) by 100%. The second scenario is an increase in oil palm export tariffs in Indonesia to the Rest of the World (ROW) on a medium scale by 30%. The third scenario is increasing oil palm export tariffs on a large scale by 80%. The global energy crisis is a shock variable included in each simulation. The shocks included are a 100% export and import ban on Russia and a 100% food export ban imposed by Ukraine (Table 3).

The limitation of this research is that in the GTAP analysis tool, the commodity available for research is vegetable oil. Vegetable oils in the GTAP data aggregation consist of oils from soybeans, corn, olives, sesame, and peanuts. Vegetable oil commodities were chosen to represent the palm oil commodities studied. Because palm oil dominates the world's vegetable oil trade by 50%, vegetable oil in the GTAP aggregation to represent palm oil is considered valid. Another limitation in using the GTAP model is tariff and non-tariff barriers as the main shock, ignoring other influences on economic behavior (Piermartini, 2012). There is no validation of results, and the market structure of competition is assumed to be perfect, so it is challenging to analyze conditions of imperfect market competition (Oktaviani, 2011).

RESULT AND DISCUSSION

Impact of Indonesia's and Partner Countries' Macroeconomic Conditions

Implementing restrictions on the export of palm oil commodities by the Indonesian government impacts people's welfare, GDP, and trade balance in the countries studied. Research with GTAP predicts changes in macroeconomic variables due to the ban on exports of palm oil commodities in Indonesia due to including shocks, namely the export ban and increased tariffs during the energy crisis.

In this case, the ban on palm oil exports increased the economic welfare of the Indonesian state by USD 1815.81 million (Table 4). Increased welfare due to policy changes (banning the export of palm oil by the Indonesian government) increases the terms of trade. Terms of trade increase were caused by an increase in the ratio of the prices of exported goods and services to imported goods. The concept of equivalent variance calculates how much it costs consumers to buy the same basket of goods and services before and after the policy is implemented. An increase in welfare means that consumers can buy a larger basket of goods and services at a fixed cost after the policy is implemented. The Indonesian government's policy of banning palm oil exports triggered an increase in domestic consumption of goods and services by 258,

Research conducted by Pratama & Widodo (2020) due that the ban on palm oil imports by the European Union has a negative impact in the form of a decline in welfare because Indonesia is the most significant contributor to palm oil exporters in the world. This study found different results due to the prohibition of palm oil exports by the Indonesian government causing an increase in Indonesia's welfare due to an increase in the export price ratio of world palm oil is 1.88 (Table 11), which increased the terms of trade.

Because Indonesia is the largest exporter of palm oil globally, implementing this policy causes an increase in international prices because the volume of world palm oil exports decreases. Globally, export restrictions trigger distortions that harm the decline in world welfare by USD 68,941.14 million. The most affected countries that experienced a decline in welfare were the United States at USD 96,853.64 million, India at USD 93,071 million, and Vietnam at USD 43,951.5 million (Table 4). The decline in global welfare is due to export restrictions, as found by Bouet & Debucquet's (2010) research.

Other macroeconomic variables, namely the trade balance and GDP growth, were also affected by Indonesia's restrictions on palm oil exports. Economic growth is one

indicator of the success or failure of an economic policy. GDP growth decreased by 0.041%, and the decline below 1% was low and insignificant.

Indonesia's trade balance experienced a surplus of 109.59 million USD. An increase in commodity exports did not cause a surplus in the trade balance. Instead, the decline in commodity imports was higher than the increase in exports. Commodities that decreased significantly in import levels were seeds oil by 91.94 million USD and vegetable oil by 57.7 million USD (Table 18). The export commodity that decreased significantly was vegetable oil by 71.78 million USD (Table 17).

Previously, it was stated that the export ban could trigger an increase in Indonesia's welfare. The results of the analysis of the increase in tariffs on palm oil commodities are presented. The scenario of an increase in palm oil tariffs by 30% triggers a decline in the welfare of USD 5298.47 million in Indonesia. A higher tariff increase of 80% triggered a higher welfare decline of 10,029.46 million USD (Table 4). The welfare decrease because of the increase in terms of trade, prices of goods and services, and domestic goods and services consumption. In this analysis, the decrease in welfare due to the policy of increasing palm oil tariffs causes an increase in allocative efficiency (Table 8).

Indonesia experienced a trade balance deficit of 742.2 million USD amidst the energy crisis and an 80% increase in palm oil export tariffs. GDP growth continued to increase by 0.02 percent. The increase in GDP growth tends to be low considering the global situation, which is experiencing a downturn in the economy.

World welfare experienced a decline in each scenario that applied a 30% and 80% tariff, a decline in the welfare of USD 64,238 million and USD 60,714 million. An increase in export tariffs triggered the decline in welfare amid the global energy crisis triggered by the Russo-Ukrainian war. Countries that experienced the highest decline in welfare in scenarios 2 and 3 were the United States, India, and Vietnam. India and the United States experienced a higher decline in welfare if Indonesia implemented a non-tariff barrier policy in a ban on palm oil exports rather than a tariff barrier policy. The United States experienced the highest decline in the welfare of USD 97,553 million in the scenario of an 80% increase in Indonesian palm oil export tariffs.

Meanwhile, India experienced a decrease in welfare by 89,570 to an increase in Indonesian palm oil export tariffs of 30% (Table 4). India is the world's largest importer of palm oil, with an import value of USD 5.1 billion in 2020 (Ministry of Agriculture, 2021). The countries of India and China are the largest share of Indonesia's palm oil exports, reaching 29% of the total volume of Indonesian palm oil exports (Ministry of Trade, 2020). The world's second-largest palm oil importer is China, with an import value of 4.1 billion USD (Ministry of Agriculture, 2021). One of the importers of Indonesian palm oil, China, experienced a decline in the welfare of USD 1,746 million.

Countries in ASEAN that are importers of Indonesian palm oil are Singapore, the Philippines, and Vietnam. The country that continues to experience increasing prosperity during the energy crisis and tightening palm oil exports in Indonesia is Singapore. Singapore experienced an increase in the welfare of 2192.79 million USD. Despite experiencing an increase in welfare, it experienced a trade balance deficit of USD 1610.2 million at an increase in Indonesia's palm oil export tariffs of 80%.

Countries in ASEAN that experienced a decline in welfare were the Philippines and Vietnam. The Philippines and Vietnam are among the importers of Indonesian palm oil in ASEAN. The Philippines imported USD 427.71 million of palm oil from Indonesia in 2018 (Central Bureau of Statistics, 2018). They experienced a decline in the welfare of USD 9226 million if Indonesia increased its palm oil export tariff by 80% during the energy crisis.

Vietnam imported 320.86 million USD of palm oil from Indonesia in 2018 (Central Bureau of Statistics, 2018). The country of Vietnam experienced a decline in the welfare of 29,000 million USD if Indonesia increased the export tariff for palm oil commodities by 80% during the energy crisis.

Countries that experience a consistent increase in prosperity in the three scenarios are Russia and Ukraine (Table 4). The trigger for increasing welfare is the restriction of goods and services by importers that have a global influence, triggering an increase in international prices of goods and services and an increase in terms of trade for both countries. The increase in welfare by Russia and Ukraine occurs because GTAP's weakness only captures the impact of the war in the form of import and export restrictions. GTAP does not capture the dynamic impact of war destroying productive infrastructure and causing businesses to close.

However, implementing tariff and non-tariff barriers on Indonesian palm oil during the energy crisis has triggered a trade balance deficit of around USD 22,000 million in each scenario. The Russian state experienced a decline in GDP growth of around 8% in each scenario. According to the OECD economic growth projections, Russia's national GDP will be 4,233,023 million USD in 2030. As a result of the world energy crisis, Russia's GDP decreased to 3,894,381.16 million USD in 2030 (Table 7). Ukraine experienced an increase in GDP growth in each scenario by 1.9%. This result contrasts with the World Bank's prediction, which projects that Ukraine's GDP in 2022 will fall by 45 percent. The weakness of analysis with GTAP is that it only captures the impact of trade restrictions and wars have a broad and crisis-causing impact on various channels such as commodity markets, financial flows, and market confidence. Disruption to financial networks can lead to increased risk in the financial sector and undermine regional growth Guénette et al., (2022).

World GDP growth declined by 0.03% due to the energy crisis and Indonesia's policy of implementing a non-tariff policy that restricts palm oil exports (Table 6). If the government implements a policy of increasing tariffs, world GDP growth will decrease by 0.02%. Countries that experienced a decline in GDP growth were Malaysia, the Philippines, Vietnam, and America due to the energy crisis and the Indonesian government's policies related to tariff and non-tariff barriers on palm oil commodities.

Impact of Sectoral Trade Conditions in Indonesia and Partner Countries

Despite increased welfare due to export restrictions, the Indonesian state that implemented export restrictions to isolate domestic prices caused an excess of domestic supply and lowered palm oil prices by 5.19 percent (Table 22). The policy of banning palm oil exports implemented by the Indonesian government successfully lowered the domestic price of palm oil. The policy also reduced the price of a substitute commodity for palm oil products, namely seed oil, which decreased by 18%. Processed products are affected by a decline in prices, by 1.26%. Processed food

processing mainly uses palm oil as raw material in the frying process. Furthermore, margarine is a dairy product that uses palm oil as raw material, which experienced a decline in the price of 1.34%. Thus, the government's prohibition of palm oil exports decreased the price of substitute products and palm oil derivatives.

Despite the significant decline in palm oil prices, the policy of banning palm oil exports harmed output and employment growth. The excess domestic supply of palm oil led to a decrease in output growth by 66.6 percent (Table 14). The decline in output growth triggered a decline in skilled and unskilled labor growth by 66 percent and 65%, respectively. The effect of efficiency allocation decreased by 347.59 million USD, indicating that the use of resource inputs is not in an optimum proportion, increasing production costs (Nurrahma, 2013). The export ban policy reduces output and employment in oil palm commodities which have the potential to harm farmers. This policy has the potential to hamper the production of palm oil.

Export ban policies can contribute to stabilizing domestic food prices. Declining domestic commodity prices, namely agriculture (5.31%), livestock (2.37%), processed food (1.26%), vegetable oil (5.19%) seeds oil (18.33%), dairy products (1.34%), and trade (0.52%). The ban on palm oil exports causes the price of palm oil products to decrease and their substitution, namely oil seeds with elasticity >1.

As a result of the world energy crisis and the Indonesian government's ban on exporting palm oil commodities, global commodity prices have increased. The highest increase was in oil commodities (21%), vegetable oil (5.62%), and manufacturing and extraction (4.52%). If Indonesia implements the policy of increasing tariffs by 80%, there will be a significant decline in global palm oil commodity prices by 4.62%. Because Indonesia is the largest exporter of palm oil commodities and has global market power, the export ban policy significantly impacts increasing international prices. The war crisis between Russia and Ukraine and the state policies that prohibit the import and export of goods to Russia have distorted and negatively impacted the increase in global food prices.

The ban on palm oil exports triggers an increase in global food prices and harms global welfare. An increase in terms of trade triggers an increase in Indonesia's welfare and cannot be justified as a reason for a country to restrict the export of an item. Because countries that impose restrictions experience terms of trade, importing countries experience trade losses. If the importer is a large country, then that country can retaliate by lowering tariffs. Thus, the terms of trade accepted by the state will decrease. Therefore, increasing trade terms is not a reason to impose export restrictions (Estrades et al., 2017).

We have already discussed the impact of an export ban policy on palm oil by the Indonesian state during a crisis. So next, we will discuss the consequences that can be analyzed sectorally due to Indonesia's policy of increasing palm oil tariffs. If Indonesia sets a tariff increase policy, there will be a decrease in Indonesia's terms of trade for both scenarios by 0.81% and 3.06%, respectively (Tables 12 and 13). A decrease in the competitiveness of palm oil export products in the world market due to increased tariff prices. According to Rifin (2010), an increase in export taxes reduces the competitiveness of CPO exports. The implementation of export taxes harms the competitiveness of the Indonesian CPO industry in the long term. 30% export tax during the energy crisis increased Indonesia's palm oil exports by 75 million USD.

Applying an export tax for palm oil commodities in Indonesia during the energy crisis failed to suppress export volumes.

As a result of tariffs imposed by palm oil exports from Indonesia, domestic palm oil commodity prices increased by 8.58% and 18.65%, respectively. Thus, applying tariffs on palm oil commodities failed to reduce domestic palm oil prices. This study differs from Susila (2004), which states that the export tariff policy is an effective instrument to control domestic palm oil prices.

Rising domestic palm oil prices make the profits obtained by producers higher in producing palm oil domestically. Thus, the decline in export competitiveness abroad positively impacts palm oil exporters selling their products in the domestic market.

Palm oil commodities increase output growth in Indonesia for the two scenarios by 65.09% and 176.15% (Table 14). An increase in output growth raised the demand for skilled and unskilled workers on average for each scenario by 65% and 174%.

The 80% increase in tariffs on palm oil and the ensuing energy crisis led to price increases for all domestic commodities. The commodities that experienced the highest price increase were seeds oil (50.88%), oil (17.76%), and vegetable oil (18.65%). So the Indonesian government's policy of increasing palm oil export tariffs can trigger an increase in domestic commodity prices. Thus, this policy is inappropriate during the energy crisis and rising commodity prices of world palm oil.

The war between Russia and Ukraine led to increased global commodity prices. In the scenario of the imposition of a ban on exports from Indonesia, the prices of food commodities (2.61%), manufacturing and extraction (4.52%), oil (21.42%), and vegetable oil (5.62%) increase. The highest price increase in each scenario is an oil by 21%. The increase in food prices is detrimental to food-importing countries, especially countries with low incomes. There will be an increase in the cost of consumption baskets for developing households, especially for poor households. The energy crisis exacerbates international food insecurity when food prices have been historically high due to the Covid-19 pandemic (WTO, 2022). The increase in food prices can occur because Russia and Ukraine provide more than 30 percent of the world's wheat and more than 50 percent of sunflower oil. Russia is the top exporter of natural gas and the second-largest oil exporter. As a result of the war between Russia and Ukraine, commodity prices reached record highs. Food prices in February 2022 increased 34% higher than last year (United Nations, 2022).

Vegetable oil commodity prices decreased when Indonesia imposed tariffs of 30% and 80% of 0.08 percent and 4.62 percent, respectively. During the global energy crisis, Indonesia's export restrictions have triggered higher palm oil prices.

SIMPULAN DAN SARAN

The policies carried out by the Indonesian government in overcoming the increase in palm oil commodity prices during the world energy crisis have an impact on people's welfare. If the government stipulates a ban on palm oil export, it will improve people's welfare and decrease domestic prices for palm oil commodities and substitute products and their derivatives. However, this policy has the consequence of reducing output and labor for domestic palm oil commodities due to the abundant stock of resources.

Implementing export tariffs on palm oil commodities reduces people's welfare and reduces the competitiveness of palm oil commodities in the global market. This policy also impacts increasing domestic prices, which are detrimental to domestic consumers. The establishment of tariff and non-tariff barriers to reduce palm oil prices harms trade in palm oil commodities.

The government should provide domestic availability of palm oil and ensure that the price is affordable to the community. Policies implemented by the government must also protect palm oil exporters and smallholders. Due to the crisis, people with low incomes are vulnerable to rising commodity prices. The challenge to be faced is reduced availability and increased food and energy prices. The crisis will have a broad impact, and the poor and vulnerable will feel the consequences. Inflation weakens people's purchasing power and increases the risk of poverty. Mitigation of safety nets is needed in the form of interventions that can increase the productivity of vulnerable communities affected.

The limitation of this research is that it used the GTAP database analysis tool in 2011, so the estimation results tend to be lower than the actual economic conditions. So the results are estimated to be underestimated by actual economic conditions. The research only captures the impact of trade restrictions and does not describe the actual economic conditions due to the wars between Russia and Ukraine. War has spillover effects that affect global trade chains and increase volatility in financial markets, humanitarian crises, reduce market confidence, and food insecurity. Therefore, the results of this study only capture the impact of trade restrictions and do not capture the impact of war.

The limitation of this study is that it does not capture the impact of the global logistics and troop chain bottlenecks resulting from the wars in Russia and Ukraine. An increase in transportation costs due to trade restrictions, airspace closures, and security uncertainties complicate trade routes through Ukraine and Russia (United Nations, 2022). Therefore, further research is recommended to examine the impact of increasing transportation costs on reduced trade commodities from Russia to Indonesia and the global economy.

DAFTAR PUSTAKA

- Bouet, A., & Debucquet, D. L. (2010). IFPRI Discussion Paper 00994 Economics of Export Taxation in a Context of Food Crisis A Theoretical and CGE Approach Contribution Antoine Bouët David Laborde Debucquet Markets, Trade and Institutions Division. January.
- Estrades, C., Flores, M., & Lezama, G. (2017). The Role of Export Restrictions in Agricultural Trade. April, 53. <http://ageconsearch.umn.edu/record/256421>
- Guénette, J., Kenworthy, P., Wheeler, C., Guénette, J. D., Kenworthy, P., & Wheeler, C. (2022). Implications of the War in Ukraine for the Global Economy Implications of the War in Ukraine for the Global Economy. April.
- Hertel, T. (1997). Global Trade Analysis: Modeling and applications. Center for Global Trade Analysis, Department of Agricultural Economics, Purdue University. <https://econpapers.repec.org/RePEc:gta:gtapbk:7685>

- Nations, U. (2022). Global Impact of war in Ukraine on food, energy and finance systems. 1, 1-22.
- Nurrahma, T. (2013). Dampak Liberalisasi Perdagangan terhadap Efisiensi Teknis Perusahaan pada Industri Manufaktur Indonesia The Impact of Trade Liberalization on Technical Efficiency of Indonesian Manufacturing Firms. *Jurnal Ekonomi Dan Pembangunan Indonesia*, 14(1), 82-108.
- Organization, W. T. (2022). The Crisis in Ukraine Implication of the war for global trade and development.
- Piermartini, R. (2012). A practical guide to trade policy analysis. Recuperado El.
- Pratama, R. A., & Widodo, T. (2020). The Impact of Nontariff Trade Policy of European Union Crude Palm Oil Import on Indonesia, Malaysia, and the Rest of the World Economy: An Analysis in GTAP Framework. *Jurnal Ekonomi Indonesia*, 9(1), 39-52. <https://doi.org/10.52813/jei.v9i1.28>
- Rifin, A. (2010). The Effect of Export Tax on Indonesia's Crude Palm Oil (CPO) Export Competitiveness. *ASEAN Economic Bulletin*, 27(2), 173. <https://doi.org/10.1355/ae27-2b>
- Rifin, A., Feryanto, Herawati, & Harianto. (2020). Assessing the impact of limiting Indonesian palm oil exports to the European Union. *Journal of Economic Structures*, 9(1). <https://doi.org/10.1186/s40008-020-00202-8>
- Sinaga, Y. V., Sinaga, B. M., & Sinaga, S. (2020). Dampak Kebijakan Tarif terhadap Perdagangan Minyak Sawit Dunia. *Jurnal Ekonomi Pertanian Dan Agribisnis*, 4(1), 200-209. <https://doi.org/10.21776/ub.jepa.2020.004.01.18>
- Taheripour, F., Hertel, T. W., & Ramankutty, N. (2019). Market-mediated responses confound policies to limit deforestation from oil palm expansion in Malaysia and Indonesia. *Proceedings of the National Academy of Sciences of the United States of America*, 116(38), 19193-19199. <https://doi.org/10.1073/pnas.1903476116>