THE IMPACT OF RUSSIA-UKRAINE WAR ON ENERGY POLICY MANEUVERS TO STRENGTHEN ENERGY SECURITY AND CYBERSECURITY IN INDONESIA

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Impact of Russia-Ukraine War on Energy Policy Maneuvers To Strengthen Energy Security And Cybersecurity In Indonesia

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Abstract

The war between Russia and Ukraine is highly discussed in global geopolitics and geostrategy. The strategy of attacking Russia directly at the point of a vital national object, namely the power plant, which was preceded by a cyber attack at the Nuclear Power Plant in Chornobyl, followed by a conventional physical attack from the air, resulted in an energy crisis in Ukraine. The resulting war affects many sectors, such as the energy sector, food, and supply chains, especially (at the end of 2021) before the war. WTI oil price was only around 75$/barrel, but when the war broke out, the price increased to 130$ (in August: 93$). It is estimated that oil prices will not fall significantly as long as the war is not over. The direct impact of war disrupts global energy security. This research uses a qualitative study based on the theory of incremental policy from several experts who support new policies quickly and national defense and energy security. Based on the incremental policy, policies that support the strengthening of cybersecurity will be produced, ranging from cryptographic policies to the potential for highly advanced energy sector blockchains.

Keywords: Russia-Ukraine War, Manuever, Energy Policy, Energy Security, Cybersecurity

INTRODUCTION

The conflict between Russia and Ukraine escalated again in early February 2022, after the Russian war fleet demonstrated its strength on the Ukrainian border in Belarus. Despite diplomatic efforts, it is estimated that a sufficient number of Russian troops could be used to carry out an invasion of Ukraine and cause an escalation of tensions in Russian-Ukrainian relations, but have not found a middle ground for peace. Rising commodity prices due to the conflict between Russia and Ukraine will affect the global economy, with rising commodity prices, especially oil and refined mineral products, slowing global economic growth. The increase in world oil prices is due to Russia being one of the largest...
countries and meeting 10% of the world's oil needs (Kompas, February 25, 2022). Indonesia as a global economic community will certainly be greatly affected by this conflict, especially in the energy sector. Before the war, the price of WTI crude was around $75 per barrel at the end of 2021, but when the war broke out, it rose to $130 ($93 in August). Oil prices fell as the US decided to use buffer reserves. Buffer stock is used in martial law. It is estimated that oil prices will not drop significantly until the war is over. The immediate effect of war is on global energy security. The current implication is that the price of oil and gas that was originally subsidized must be increased gradually so as not to burden the state budget with revenues and expenditures.

Meanwhile, Indonesia, the world's largest thermal coal exporter, will increase its export value significantly in line with rising coal prices. On the other hand, because Indonesia is currently a net importer of crude oil, rising crude oil prices are a problem. Even Indonesia's trade balance often runs a deficit due to high oil imports (Bisnis Indonesia, 25 February 2022). Currently, the national fuel consumption of 4,444 reaches 1.4-1.5 million barrels per day, while Indonesia's oil production capacity is less than 700,000 barrels per day (Kompas, February 25, 2022). Rising world oil prices have been reflected in oil prices. Trading on February 24, 2022, Indonesian crude oil (ICP) was at $95.45 per barrel, while West Texas Intermediate (WTI) crude was at $96.27 per barrel, according to Bloomberg data 101.86 per barrel on 28 February 2022. This price increase could affect the cost of energy commodity imports, with Indonesia's oil and gas imports reaching 196.2 billion in 2021 (on the 1st of March 2022). Increasing energy security, especially in terms of affordability, must be based on a gradual political theory because if the price rises significantly, we can prevent it with additional rules that apply only for a certain period.

Seeing the above phenomenon, the researcher is interested in conducting a study on the impact of the war between Russia and Ukraine on Indonesia's energy security. This paper aims to discuss how Russia's war against Ukraine will affect Indonesia's energy policy.

**METHOD**

This study follows the desk study method and synthesis of the literature as well as a variety of secondary data from various resources. This study also uses a qualitative study based on the theory of incremental policy from several experts who support the new policy quickly (True, J. L., Jones, B. D., & Baumgartner, F. R, 2019). This is because if there is a significant price spike, it can be anticipated with additional rules that apply only for a certain period.

Before all data as a whole is collected, we systematically scan relevant analyst reports, newspaper articles, annual reports to obtain information related to energy policy maneuvers, cybersecurity and the interrelationships between the two aspects (Yin, 2009). Whenever the results of the analysis and review produce contradictions with other articles, we use secondary data to clarify the situation. Based on the insights gained through this process, we develop testable propositions and integrate alternative explanations into our theoretical framework (Hopmann, J., Peters, M., Schneider, M., & Hoffmann, V. H, 2013).
RESULT AND DISCUSSION
Geopolitics and Geostrategy of the Russian-Ukrainian War.

Geopolitics of the Russian-Ukrainian War

Ukraine is on both sides, with pro-Europeans in the West and pro-Russians in the east. These two countries were once part of the Soviet Union, but after the Soviet Union collapsed (Berglund, S., & Karasimeonov, G., 2019), Ukraine declared its independence on August 24, 1991. After Russia and Ukraine officially became independent countries (Marple, D. R, 1993), the two established diplomatic relations on February 14, 1992, followed by various agreements and cooperation in 1997. Furthermore, the bilateral relations between the two countries experienced ups and downs, including in the political field. One of them is the change of leadership that brought Ukraine to the West, which resulted in the diminishing role of Russia. In addition, in the economic field, it also caused a dispute between the two countries, namely regarding the gas supply in 2006 (Stegen. K. S, 2011).

In 2014 the Ukrainian people voted for a more independent ouster of the pro-Russian president Viktor Yanukovych. Pro-EU demonstrations occurred due to the rejection of Viktor’s policy of preferring trade relations with Russia (Shevel. O, 2016). The ouster of Viktor caused conflict in the Ukrainian government to be divided into two groups, namely the pro-European Union and the pro-Russian group. The group that supports Russia comes from the people and politicians of Crimea. Crimea is strategically located, and Russia takes advantage of this situation for its influence in the Eastern and Central European regions. Then, on March 16, 2014, the Parliament of Crimea officially held a referendum by choosing to join Russia and break away from Ukraine. Apart from the Crimea crisis, in February 2022, the crisis between Russia and Ukraine peaked again after NATO (North Atlantic Treaty Organization) tried to expand its membership to Eastern Europe by attracting Ukraine as a target. Based on this issue, Russia is not happy with the situation because Russia considers this NATO effort to have become a threat and a violation, so Russia does not want to let Ukraine get away from Russia's grip. The condition of the territory controlled by both parties until September 2022 (Dadush, U., & Weil, P, 2022) is shown in Figure 1.

Figure 1. Geopolitical Conditions of Ukraine in September 2022

According to Figure 1, it is known that Ukraine did not accept the raw attack, but there was fierce resistance to the Ukrainian defense principle of urban camouflage. Russia will not fight unarmed civilians. NATO, which has opened its doors wide to Ukraine, has put Ukraine on the edge of war with Russia if it chooses to join NATO. The overwhelming support of western countries such as the US for Ukraine has also threatened Russia. Therefore, Russia considers that NATO is only used as an instrument or media for western countries to fight Russia and has violated a long-standing agreement that NATO will not expand its reach to Eastern Europe. This has caused a tremendous reaction from the international community regarding the integrity of NATO, and until now, the Russia-Ukraine crisis has not yet found a solution. In addition, tensions...
between Russia and Ukraine have also negatively impacted the economic, social, and political sectors in various countries in the world (Jagtap, S., Trollman, H., Trollman, F., Garcia-Garcia, G., Parra-López, C., Duong, L., ... & Afy-Shararah, M, 2022).

**Geostrategy of the Russian-Ukrainian War**

It was estimated that the Russian-Ukrainian conflict will continue until the end of 2022, with Russia's strategy of carrying out a low-intensity war. This means only attacking in some parts to paralyze certain sectors. The aim is not to overthrow the regime, control the country, or occupy or colonize. However, the low-intensity war carried out by Russia against Ukraine aims to restore Russian supremacy in Eastern Europe, especially the former Soviet Union countries, including Ukraine, because the area is a traditional Russian territory. This is intended to ensure the security of the Russian territory itself. The equilibrium of power is the goal of Russia to restore Russian supremacy in Eastern Europe, especially the countries that were broken by the Soviet Union, not to destroy the domination of the United States but to maintain a balance of world power.

Russia wants to coexist with a big country like the United States. The United States generally consists of West America, Latin America, and several states. However, Russia also has quite a large territory, so each country has its territory. If the traditional territory belongs to Russia, Russia will react. The outbreak of the protracted Russia-Ukraine war was due to the syndrome of a superpower country such as the United States. That is why various countries, including Russia, want to shift the world's balance of power, which was previously very leaning towards the United States. During his seventeen years in power, the president of Russia faced opposition in which Western powers drove the opposition. This is also what makes a low-intensity war carried out by Russia against Ukraine protect the existing regime, conceptually known as the survival regime (Yakymenko. Y., & Pashkov. M, 2022).

**Impact of The Russian-Ukraine war**

The conflict between Russia and Ukraine that occurred after Russia took over the territory in Ukraine became a lesson for other countries in the world about how important independence is in the energy, economic, food, and cyber security sectors. This greatly affected fluctuations in world crude oil prices, hampered world logistics traffic, and price increases that have an impact on rising inflation and interest rates which lead to a decline in global growth. From a world security perspective, considering that Russia has a relatively sophisticated defense system based on high cyber technology and is equipped with nuclear technology, it is feared that it could lead to World War III (Haney. B. S, 2020).

The war between Russia and Ukraine also impacted the economic and political fields, but the most influential was the impact on the energy sector. Russia is the third largest oil producer after America and Saudi Arabia. Russia's policy of selling its oil in rubles resulted in several European countries experiencing an oil crisis. This is getting worse when European Union countries block oil and gas imports from Russia as a punishment for their invasion of Ukraine. War certainly has an impact on various sectors around the world. From the Russian-Ukrainian & US-China wars, it can be seen that the impact that occurred was the strength possessed by each country had an impact on the problems that occurred before (Cheng M, 2022). The impact is shown in Figure 2.
Figure 2. Impact of the Russian War on Crude Oil, Natural Gas, Food (Corn & Wheat), and Metal Prices

Growing pressures
Prices for energy, grains, and metals soared since the invasion of Ukraine, signaling that inflation rates are poised to accelerate.

Source: IMF,, (2022)

According to Figure 2, the price of each product has changed dramatically since the Russian-Ukrainian war began. In general, Russia is a member of the OPEC association because Russia is one of the largest exporters of energy in general and specifically natural gas in the world. Russia's crude oil and condensate output are 10.5 million barrels per day, accounting for 14% of the global supply (Taghizadeh-Hesary, F., Yoshino, N., Abdoli, G., & Farzinvash, A, 2016). Russia has oil and gas-producing facilities, although the majority of them are in western and eastern Siberia. This is also supported by Ukraine, one of the largest food-producing countries in the world, with its best products, such as sunflower seeds and wheat (Kontorovich. A, 2015). This will have an impact and escalate to affect global supply chains, energy, and food prices which currently have a major impact in Indonesia.

Energy Sector Incremental Policy Theory
The theory used is the Incremental Policy Theory proposed by Charles E Lindbloom in the article (Arranz, A. M., Thomson, R., Zech, S., Hegde, G., Arunachalam, D., & Rao, A. B, 2021) entitled "The uneven expansion of electricity supply in India: The logics of clientelism, incrementalism and maximin" reveals that the classical theory of public policy making describes and explain the incremental nature of the policy process in a variety of contexts. These theories build on (Simon H. A, 1957) insight that policymakers are unlikely to approach rational decision-making. They will establish objectives and then assess the efficacy and efficiency of comprehensive strategies in reaching those objectives. Lindblom's (1989) theory of incrementalism in public governance extends (Simon's Braybrooke, D., & Lindblom, C. E, 1963) criticism of rational policymakers. Policymakers follow the incrementalist logic of not identifying goals and then seeking and assessing policies concerning those goals. Instead, policymakers adapt their goals to available policy tools and evolving conditions. Furthermore, they concentrate on policies that deviate marginally from the status quo. In addition, Wildavsky's (1964) budgeting theory cites incrementalism as a fundamental heuristic that aids policymakers in overcoming complexity.

The logic of incrementalism applies to state decisions in general, and specifically to energy policy. Despite government attempts over the last few decades to promote policy changes such as economic deregulation, progress has been modest. Most states' energy sector changes exhibit the same glacial rate of progress. Furthermore, Oda and Tsujita's field study in 80 villages in Bihar, one of India's poorest regions, discovered that location was a crucial factor in enhancing access, with communities within easy reach. Accessed more likely to connect. This is in line with increasing energy security by increasing agile fiscal
economics. Furthermore, it is increasing oil and gas exploration in border areas.

The utilization of targeted energy and food subsidies in the lower middle economy is the key to facing the energy and food crisis. However, this is closely related to the case of the Masela Block oil and gas policy that needs to be anticipated. In this context, incrementalism means that a place surrounded by well-supplied areas has a competitive edge.

The Incremental Model posits that legislators rarely evaluate prior policy pledges and instead focus on policy changes and spending (Bauer, M. W. & Knill, C, 2014). Adding policies to strengthen and revolutionize fiscal policy to overcome the vulnerability of the economic crisis in the next few years is the key to Indonesia's sovereignty. These classical theories of incrementalism continue to influence contemporary theoretical and applied policy research so that the ideal conditions are achieved (John. P, 2003). It is necessary to add policies or Policy increments, as shown in Figure 3.

Figure 3. Modification (Addition) of Policy so that the outcome is on target (Wang. R, 2013)

Based on Figure 3. It can be seen that every year there is an increase, and new policies are updated because every year, there will be many obstacles, obstacles, and issues that require a country to form new policies to overcome them. Therefore, additional policies or increments must be implemented to anticipate these very complex conditions with additions and maneuvers to strengthen a state policy. The incremental addition must consider the interest rate so that the resulting policy is on target. The 10-year interest rate in 2022 is estimated to be in the range of 6.32–7.27%, based on the following Sekjen DPR RI. (2021):

a. Fiscal needs and the risk of uncertainty in financial market conditions are expected to persist in the next few years in response to the COVID-19 pandemic and the impact of the Russian-Ukrainian War on the food and energy sectors. Furthermore, this will strengthen the national economic recovery, which is still being pursued today.

b. The government will continue to intensify efforts to recover Indonesia's economy so that the 10-year interest rate has the opportunity to continue the downward trend in 2022. In addition, continuing to pursue policies that lead to prudent and strong fiscal management and performance, as well as maintaining inflation, will also push up interest rates. This year is on a downward trend, especially if it is supported by global financial market stability.

The implementation of projected future financial guidelines must represent the implementation of political measures. even though to begin with implementation became visible as an quintessential a part of policy making, within the 1970s implementation changed into taken into consideration to have its own dynamics within the policy cycle. in the second have a look at concerning policy implementation, the focus changed by means of changing it into two channels, consisting of (1) top-down and (2) bottom-up. The 3rd generation of research on implementation evolves into multi-layered analyzes and views that recall no longer most effective political actors, but also their underlying pursuits. in accordance up to now of view, implementation is taken into consideration as an ongoing method of negotiation among the
important authority and the executor (Banha, F., Flores, A., & Coelho, L. S, 2022). Accordingly, political networks are the key to expertise the implementation technique, bearing in thoughts that the sorts of guidelines to be applied are crucial so that implementation inside the discipline is right on track concerning strength policy maneuvers and strengthening cybersecurity. The ambiguity inherent in adopting a policy requires that those accountable for implementation understand the coverage when making use of it to real-world situations. This opens the door for administrative discretion in determining suitable implementation conduct (Sowa, J. E., & Selden, S. C, 2003).

**Energy Policy Maneuver**

The Russian invasion of Ukraine hampered global economic recovery. The acceleration of energy and food costs is one of the most evident worldwide repercussions, driving concerns about food shortages and increasing the danger of starvation and social unrest (Benton, T. G., Froggatt, A., Wellesley, L., Grafham, O., King, R., Morisetti, N., ... & Schröder, P, 2022). Global food costs increased by 33.6%. The government is being pressed to address rising energy and food prices. Most governments have stated plans to limit domestic price rises to reduce family burdens, assure food security, and avoid social unrest. Such moves, however, might entail significant fiscal costs while exacerbating global supply and demand imbalances, placing more pressure on international pricing and potentially leading to energy or food shortages. This will exacerbate the plight of low-income countries that rely on imported energy and food. The steps taken by the state to address these issues are shown in Figure 4.

![Figure 4. Various Countries’ Efforts to Address energy and food prices](chart.png)

**Source:** IMF, (2022)

In this very unpredictable situation, governments must make difficult decisions. They must prioritize their most critical expenditures and boost their revenue to cover them. To address these difficulties, it is vital to enhance solutions such as nimble fiscal plans tailored to each country’s specific conditions. Fiscal policy must respond to humanitarian emergencies and economic disruptions in nations severely impacted by the Ukraine war and sanctions against Russia. Given growing inflation and interest rates, fiscal assistance should be directed toward the most vulnerable and prioritized sectors. Fiscal policy should continue to transition from support to normalization in nations where growth is higher and inflationary pressures remain high.

To decrease susceptibility in many developing markets and low-income economies that confront tight financial circumstances or the danger of debt stress, governments must prioritize spending and increase revenues. Commodity exporters that profit from increased prices should seize the chance to replenish their buffers. Responses by governments to rises in international commodity prices must be prioritized to safeguard the most vulnerable. Avoiding
food crises while preserving social cohesiveness is a key objective. Countries with robust social safety nets can provide targeted and temporary financial transfers to needy people while allowing local pricing to adapt. This will reduce fiscal constraints while also creating adequate incentives to boost supply (such as investing in renewable energy). Other nations might allow for a more gradual adjustment of domestic pricing and employ existing measures to help the most disadvantaged during this crisis, while also strengthening safety nets.

Rising fossil fuel costs emphasize the importance of hastening the transition to clean and renewable energy, which would boost energy security and aid in meeting the critical climate agenda. The International Treaty in Paris has agreed to limit global warming to 2 degrees Celsius. Reducing the use of fossil energy will be one of the best solutions to keep the earth's temperature stable. The assumptions from the sector side are based on structural reform policies that will be directed at increasing investment and exports, which are supported by industrialization and development of high-value sectors, tourism development, and strengthening infrastructure supporting sectors, supporting food and energy security.

**Strengthening Energy Resilience**

According to Government Regulation Number 79 of 2014 concerning National Energy Policy, Energy Security is a condition of assuring long-term energy availability and public access to energy at affordable costs while also paying attention to environmental preservation. Energy Security consists of 4 aspects: Availability, Accessibility, Affordability, and Acceptability. Each scale is shown in Figure 5.

![Figure 5. National Energy Security Scheme](image)

Source: (Šumskis, V., & Giedraitis, V. R, 2015)

The four parameters must be considered in strengthening the energy security scheme, as shown in Figure 3. The energy that is, sovereign and independent must fulfill the four aspects of energy security by continuously encouraging exploration activities for new oil sources and increasing the production capacity of national refineries, encouraging various Renewable Energy development projects as a source of energy. Electricity and transportation, Government support in developing environmentally friendly energy sources through tax incentives, state spending (budget tagging), and non-state revenue budget creative funding schemes such as green Sukuk, BPDLP, carbon pricing initiatives, SDG Indonesia One, and access to international funding. Oil and gas lifting in 2022 is estimated to be in the range of 686-726 thousand BPH and 1,031-1,103 thousand BSMPH, respectively, based on the following considerations:

a. Global oil prices in 2021 have again increased. The increase in oil prices is expected to be a momentum for increasing upstream oil and gas project activities that are being developed and are expected to impact gas lifting performance positively.

b. The Government encourages implementing routine KKKS programs under its Work Program and Budget (WP&B) commitments.
c. In 2021, the Government and KKKS have agreed to drill 616 wells or double the drilling realization in 2020.

d. In addition to drilling, well maintenance and rework efforts are also carried out to keep production levels in the existing field from decreasing. Fourteen upstream oil and gas projects are also expected to be on stream and become additional national oil and gas lifting in 2021 and 2022. Oil and gas lifting is estimated to follow the 2021 State Budget assumptions, which are 705 thousand BPH and 1,007 thousand BSMPH, respectively.

e. In 2022, the Government will continue to strive to achieve production of 1 million barrels of oil per day by 2030 and 12 billion standard cubic feet of gas per day by 2030.

f. The main work program, which includes drilling, rework, well maintenance, and optimization of production facilities, will continue to be implemented. Utilization of production technology, such as Enhanced Oil Recovery (EOR), will also be maximized. Acceleration of major projects' development and commercialization plan is also being pursued.

g. The demand for oil and gas will increase in line with the return to normal economic activity that encourages the use of transportation modes and gas absorption by the industrial sector.

In the long term, the impact of the Russian-Ukrainian War and the Middle East Region Reducing energy production means the risk of increasing global demand for oil increases global oil prices. This will impact increasing oil and gas revenue so that subsidies on RON 90 class fuel will be reduced. In responding to the escalation of the conflict, the impact of the Russian-Ukrainian War, reviewing the humanitarian side, will continue to provide equitable and targeted subsidies, including continuing the provision of fixed subsidies for diesel fuel and accompanied by volume control and supervision of groups or sectors that are entitled to use subsidized diesel. Furthermore, the Transformation of Subsidy for 3 Kg LPG Cylinders with a paradigm shift from commodity subsidies (price difference) to people-based subsidies and synergies with other social assistance programs. Furthermore, electricity subsidies are only for the entitled groups (poor and vulnerable groups, both for R1 450 VA and R1 900 VA customers) using a database and encouraging the development of new and more efficient renewable energy. Increased research and development of science and technology innovation and the New Renewable Energy industry are the keys to energy development until Indonesia is in a state of net zero emission.

CONCLUSION

The development of the strategic environment in the world, such as the Russia-Ukraine conflict, has an influence on the administration of the state in terms of demography, geography, natural resources, ideology, politics, economy, socio-culture, and defense and security. Therefore, every country needs to study and assess the development of its strategic environment in the global, regional and national scope so that the country can formulate appropriate strategies and policies for its national interests. The low-intensity war carried out by Russia against Ukraine is to be carried out to minimize damage to unarmed civilians and cause global inflation in the food and energy sector. An increase in energy prices will lead to an increase in the prices of all commodities. Efforts to overcome this issue require additional policy maneuvers in strengthening the state's fiscal policy and equitable subsidies based on the theory of incremental policy to overcome future conditions of increasing uncertainty and complexity.
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