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Implementation of Domestic Market Obligations on Nickel and Bauxite in Indonesia Under International Trade Regime

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Abstract *Increasing global economic activity has resulted in raising demand on nickel and bauxite ores for manufacturing industries. Foremost demand on the raw materials is consistently increasing for production of friendly environment products, such as battery of electric vehicles (EV). The production of EV battery potentially increases particularly as global transformation to reduce GHG Emissions which cover developed and developing countries. This current situation leads export restrictions on*

nickel and bauxite to developed countries which purpose for domestic stockpile in developing countries, such as Indonesia. Meanwhile, the measures is supposed to violate Article XI.2(a) GATT 1994 which it is applied without temporary period and there is no essentialness circumstance to implement the restrictions. This emphasized on review opportunities for Indonesia to take into force alternative measures which is consistent with the GATT 1994 provisions. The research is conducted based on legal review with refer to GATT 1994 provisions and Indonesia legal provisions. Based on the review, the researchers find that implementation of Domestic Market Obligations are an exact alternative measure to safeguard domestic stockpile without extremely suffer disruption for global demand. The alternative measures grant balancing allocation between global and domestic demand which could be adjusted regularly according to the further situation faced by the country.

Keywords
Trade Regime, GATT 1994, Indonesia Export Restrictions, Domestic Market Obligations

1. Introduction

Current global situation shows demand on natural resources consistently increase as industrial activities become primary engine of economic growth. It involves mining on nickel and bauxite ores which is really desired for creation of friendly environmental technology products.[1] Demand of both commodities steadily raise foremost by developed countries which are needed to produce various manufacturing products. Moreover, global investments have influenced spreading technology development to the developing

[1] World Bank Group, *The Growing Role of Minerals and Metals for a Low Carbon Future* (Washington D.C: World Bank, 2017). https://doi.org/10.1596/28312.

world in which industrial development place the important role in determining sustainable development.[2]

Green development has changed development orientation which put aside fossil fuel or carbon energy as main power of human activities. It could take place as EV battery replaces the conventional energy which utilize internal combustion engine in term of transportation field. Evolution of transportation products result in demand on nickel and bauxite increase to produce EV battery which constitute pivotal component equipment of the vehicles.[3] The effort must be conducted as the Paris Agreement requests the member countries to curb Green House Gas (GHG) emission targeting below 2^0C at the first stage and then pursuing to not reach 1.5^0C for the second target.[4] The first stages, development of EV technology emerges in advance industrial countries, such as the EU member, the US, and China.[5] Then, the green technology development also attracts the member of developing countries, in particular the emerging countries, to contribute in developing of the concern technology foremost the mineral endowed countries. Consequently, tension of demand toward the raw materials are taking place between developed and developing countries.

For instance, Indonesia is struggling to develop ecosystem of electric vehicle in domestic territory. The measures are implemented as accordance with the Presidential Decree No. 55/2019 pertaining

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[2] OECD Report, "Green Growth and Developing Countries," *Oecd CONSULTATI*, no. June (2012): 145.

[3] Ben Jones, Robert J.R. Elliott, and Viet Nguyen-Tien, "The EV Revolution: The Road Ahead for Critical Raw Materials Demand," *Applied Energy* 280, no. October (2020): 115072, https://doi.org/10.1016/j.apenergy.2020.115072.

[4] Article 2.1 of Paris Agreement 2015

[5] Ekta Meena Bibra, et.al. *Global EV Outlook 2021: Accelerating Ambitions despite the Pandemic*. (Paris: International Energy Agency, 2021).

national program of electric vehicle development. The government enacts the regulation is accordance with international obligation pertaining reduction of pollution and potential growth in global trade. The geographic situation proves that the archipelago country is enriched with nickel and bauxite ore which is including as one of top suppliers for global market.[6] Unfortunately, the Mineral Act No. 3/2020 provides export restrictions could be imposed for domestic interest.[7] The Act become legal basis for the Minister of Energy and Resources (MOER) to impose export restrictions on both nickel and bauxite through the MOER Regulation No. 11/2019 concerning application of the restrictions measures. The measures are supposed to favor domestic supply than global market demand.

The measures lead the European Union requests to establishment of a Panel regarding the provisions of DSU and SCM Agreement.[8] The complainant accuses the respondent supports domestic processing industries through guarantee of minerals stockpile with the restricting measures. Thus, the measures are deemed to infringe Article XI.1 of the GATT 1994 by the complainant.

However, the measures should be applied by the government to ensure sustainability to the processing industries amidst high demand of the commodity supercycle in the global market. Moreover, the authority views the restrictions measures need to be conducted as effort to develop value added, particularly value chains of domestic EV production.[9] Actually, the export restrains have been applied since 2014 which emphasize upon development of purified facilities or

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6 Iron Ore et al., *Mineral Commodity Summaries 2021*, 2021.

7 Amended the Mineral Act No. 4/2009.

8 Establishment of Panel Request by EU, "Indonesia – Measures Relating to Raw Materials", WT/DS592/3, 15 January 2021.

9 Andante Hadi Pandyaswargo, et al. "The emerging electric vehicle and battery industry in Indonesia: Actions around the nickel ore export ban and a SWOT analysis." *Batteries* 7, no. 4 (2021): 80. https://doi.org/10.3390/batteries7040080

midstream product which enable to increase the value of the raw materials domestically.[10]

Regarding GATT rules, export restrictions are prohibited as conformity with the Article XI.1 of the GATT 1994. However, Article XI.2 and Article XX GATT 1994 justify imposition of export restrictions with some requirements should be met. Nonetheless, Article XI.2 allows the export restraints only for temporary period and to prevent critical shortages of product essentialness. Meanwhile, application export restrictions in Article XX could be referred to WTO DSB on Case China – Measures Related to the Exportation of Various Raw Materials (DS394) whereby China argues that imposition of the measures are regarded with Article XX(b)(g) GATT 1994 to protect lives and environment. However, Panel of the Case concern argues that export restrictions should take into consideration the principle of alternative measures and *evenhandedness* before the restrictions are taken into force.

In addition, there is research founding that Indonesia's mineral export restrictions could potentially infringe Article XI.2 GATT 1994 and Article XX(b) and (g) GATT 1994.[11] The research reveals that the measures does not fulfill essentialness element of Article XI.2 GATT 1994 as amount of domestic consumption is lack of the mining production. Then, the research adds Article XX(b) and (g) GATT 1994 could not be justified because the measures at issue are oriented for industrial development rather than protection of environment. On the other side, regulation of Indonesia desires export restrictions may be imposed permanently, including massive exploitation could be

[10] OECD. *OECD Economic Surveys: Indonesia 2016* (Paris: OECD Publishing, 2016).

[11] I Gusti Ngurah Parikesit Widiatedja, "Indonesia's Export Ban on Nickel Ores: Does It Violate the World Trade Organization (WTO) Rules?", *Journal of World Trade* 55, no. 4 (2021): 667-696.

carried out in the future. This situation does not guarantee that nickel and bauxite exploitation massively could safeguard domestic demand amid recently global price extremely increase that miner would probably prefer exporting the materials to sell into domestic market with reminding the recent London Metal Exchange shows unprecedented price appreciation. Even Bloomberg reports that Multinational Cooperation attempts to deal large supply of the raw materials amidst raising demand on global market.[12] Meanwhile, the production of nickel and bauxite might only be exploited for limitation of period time in which these are categorized as unrenewable resources. Thus, stockpile shortages could become obstacle for Indonesia to fulfill domestic demand in the case insufficient reserve in the future.

This research will discuss on probability justification of domestic market obligation on nickel and bauxite ore for Indonesia regarding the GATT/WTO rules. This could be probably implemented as the current Indonesia's mineral export restrictions measures could potentially violate the GATT/WTO rules supposed hassle the global trade system. Thus, it may look for balancing interest between domestic demand fulfilment and global demand as accordance with the GATT/WTO rules.

2. Method

Actually, research on domestic allocation has already conducted which focus on coal mining production. According to the research, implementation of mining licensee's working plan should be fulfilled as regulated by the government regulation strictly. The research adds

[12] Priti Ramgarhia, "Tesla Doubling Down on Deals for Nickel Supplies", *TIP RANKS*, March 31 (2022). Retrieved from <https://www.nasdaq.com/articles/tesla-doubling-down-on-deals-for-nickel-supplies>

that government needs to control against implementation of the working plan. Those need to be done as field implementation may suffer obstacles due to different situation.[13] Likewise, research on domestic market obligation has been conducted in the field of accounting.[14] However, there is no legal research on the matter, so this research could observe legal opportunity to would implement mandatory obligation on domestic demand measures without infringement of the GATT/WTO rules.

The research on the implementation of Domestic Market Obligations (DMO) on nickel and bauxite in Indonesia under the international trade regime will adopt a mixed-methods approach. Initially, a thorough review of existing literature, including international trade agreements and domestic legislations, will provide a foundational understanding. Qualitative methods such as interviews and focus group discussions with key stakeholders, including government officials, industry representatives, and community leaders, will be employed to capture diverse perspectives and motivations surrounding DMO implementation. Quantitative data analysis, focusing on trade statistics, production volumes, and economic indicators, will be conducted to assess the economic impact. Additionally, a comparative analysis of similar policies in other countries will provide insights into best practices and potential pitfalls. This mixed-methods strategy aims to offer a comprehensive and nuanced examination of the multifaceted dimensions associated

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[13] Ridwan Saleh, "Domestic Market Obligation (DMO) Policy and Its Implementation Strategies", *Indonesian Mining Journal* 15, no. 1 (2012): 42–58.

[14] Anke Schaffartzik, Dominik Wiedenhofer, and Nina Eisenmenger, "Raw Material Equivalents: The Challenges of Accounting for Sustainability in a Globalized World," *Sustainability (Switzerland)* 7, no. 5 (2015): 5345–70, https://doi.org/10.3390/su7055345.

with the implementation of DMO on nickel and bauxite in Indonesia within the international trade regime.

3. Result & Discussion

A. Proliferation of Domestic Mandatory Market Obligation

Basically, domestic mandatory market obligation could not be defined clearly as there is no certainty legal definition related the matter. However, the mandatory market obligation relates with effort to restraint export of commodities which favour allocation for domestic market.[15] The measures are commonly conducted to ensure sustainability of certain materials for domestic industries which are also supposed as scarce materials.[16] This situation become common existence in some countries which consider it as strategic commodities which could consistently support development of the countries. On other words, the mandatory obligation could be generally understood as domestic market obligation imposed by government to prioritize domestic demand. It requests raw materials producers to allocate its annual production for domestic industries regarding the stipulation of government. The effort needs to be applied as prevention from scarcity shortages in domestic market caused high global demand.

Globally, imposition of domestic market obligation is rarely applied as it is seemed like implementation of export quota which could distort flow of goods in global market. In this case, emerging countries commonly apply the measures to safeguard stockpile for

[15] Theo Henckens, "Scarce Mineral Resources: Extraction, Consumption and Limits of Sustainability," *Resources, Conservation and Recycling* 169, no. October 2020 (2021): 105511, https://doi.org/10.1016/j.resconrec.2021.105511.

[16] M. L.C.M. Henckens et al., "Mineral Resources: Geological Scarcity, Market Price Trends, and Future Generations," *Resources Policy* 49 (2016): 102–11, https://doi.org/10.1016/j.resourpol.2016.04.012.

domestic demand. Furthermore, the measures may be applied for some critical reasons which are considered that the certain materials are strategic for imposing countries. This effort should be conducted as pre-preparation which ensure unlimited access to the resources in the future.[17] At the same occasion, implementation of DMO could control domestic price which favour affordable selling price to domestic consumers. Developing countries apply the measures for basic daily necessity which contain high risk if follow free market mechanism.

However, DMO has spread beyond unnecessary daily goods which it also covers mining materials for manufacturing industry interest. It is practiced by the United States which is impose trade restrictions on nickel with reason to sustainable domestic green economy production.[18] The US government provides the restrictions under the Defense Production Act 1950 which stipulate friendly environmental products as part of national security policy. The US authority admits that the country relies on lithium, cobalt, nickel, graphite, and manganese are strategic and critical materials to produce green technology products amidst global demand for transition to green economy as well. Section 303 (a)(5) of the act firmly reiterates sustainable and processing value added of strategic and critical materials for production of automotive batteries, e-mobility, and stationary storage sectors are essential for security of national defense. Even, as accordance with Section 303 (a)(1), Minister of

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[17] Alicja Kot-Niewiadomska, Krzysztof Galos, and Jarosław Kamyk, "Safeguarding of Key Minerals Deposits as a Basis of Sustainable Development of Polish Economy," *Resources* 10, no. 5 (2021), https://doi.org/10.3390/resources10050048.

[18] Thomas J. McInerney, and Fred L. Israel (eds). *Presidential Documents: The Speeches, Proclamations, and Politics That Have Shaped the Nation from Washington to Clinton* (New York: Routledge, 2013). https://doi.org/10.4324/9780203122273.

Defense has mandate to fully control and surveillances toward utilization of the materials begun from mining production mechanism until processing of value-added environmental production in manufacturing level. It means that the ministry could create a system which regulates the beneficiation mechanism of the minerals from upstream until downstream level. Moreover, this effort applies in relation with easing access on the raw materials as amidst competition between domestic multinational private companies and other global giant company to get stockpile, so that the measures could safeguard domestic demand for certain period.[19]

The application of domestic mandatory sale obligations is currently common measures taken into force by several countries, foremost by developing countries which rich with mineral concerns. Furthermore, green transition has resulted in significantly demand globally which emerge competition between the resources countries and industrial countries. Unfortunately, geopolitical tension has impacted the supplying circulation of the materials damaging dependencies countries. OECD reveals that supply of critical raw materials is mostly dependencies on non-OECD countries. Its report unveils that majority import of the materials are dominated from China hold for 24%, Russia account at 10%, followed by Brazil and South Africa at 6% respectively, and India amount 4%.[20] Furthermore, the Organization explains that Japan and South Korea are the highest

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[19] Levi Mcallister, and Maggie E. Curran, "Biden Invokes Defense Production Act to Secure EV Battery Supply Chain", *Morgan Lewis Online,* April 1 (2022). Retrieved from <https://www.morganlewis.com/blogs/powerandpipes/2022/03/biden-invokes-defense-production-act-to-secure-ev-battery-supply-chain>

[20] Przemyslaw Kowalski, and Clarisse Legendre. *Raw Materials Critical for the Green Transition: Production, International Trade and Export Restrictions*. (Paris: OECD, 2023). Availavle online at < https://circulareconomynetwork.it/wp-content/uploads/2023/04/raw-materials-critical.pdf>

number of importers for the raw materials which import about 65% of amount lithium imported by the OECD countries.[21]

The high number of imports for raw materials lead the endowed countries to restrict exportation to support downstream domestic industries. The measures could be acceptable with remaining the materials are highly competitive position affecting high price and volume fluctuations so that requiring state intervention to secure for domestic industries. Moreover, restrictions of the raw materials need to impose certain measures relating to effect from the mining extraction for environment and society which entail protections. This policy implies that the measures motivate to monitor exploitation activity and trade affecting environment and live of society. For these terms, China, India, Russia, Argentina, and the Democratic Republic of Congo pose high ranking for imposing restrictions in 2020 as same as in 2009. China remains lead the top countries imposing trade restrictions with percentages approximately 20% in 2020.[22]

OECD study unveils that export licensing requirements become the second commons measures after export taxes used to restrict the mineral export.[23] The measure accounts for 24% of all measures for 2020. Previously, export licensing is the most type of restriction measures accounted for 31% in 2019. However, export taxes become prominence policy with reason factors, namely growing domestic interest for use export restrictions and distinguishing effect of export restrictions with regard absorbing the WTO provisions whereby the agreement prohibit strict quantitative restrictions, but it justifies export taxes.

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21 Kowalski and Legendre.
22 Kowalski and Legendre.
23 Kowalski and Legendre.

B. Implementation of DMO on Mining Products

1) Regulation Existence of DMO In Indonesia

Currently, Indonesia has been applying domestic market obligation on coal since 2009 regarding with Article 3 of the Minister of Energy and Resources (MER) Regulation No. 34/2009 pertaining primary mineral and coal supplying for domestic interest. The regulation provides obligation on the mining industry to supply the black stone for domestic demand with certain amount percentages of its production. Same provision is provided by the minister though the MER Regulation No. 25/2018 on Mining Activities whereby Article 32 stipulates the authority could control export on coal for domestic need. Furthermore, the Article concern clearly provides the measures should be applied for some reasons, namely for safeguarding domestic stockpile, economic defense, security defense, and controlling prices of coal. For those reasons, the regulation justifies imposing domestic market obligation for domestic demand. Those policies should be taken place in accordance with Article 2 of Presidential Decree No. 5/2006 pertaining National Energy Policy targeting domestic energy originate from coal until more than 33% which means Indonesia's primary power energy do relies on coal production. Basically, the domestic market obligation should be taken into force as Article 33 (3) of the Indonesian Constitution mandating all resources must be utilized for people prosperity. Furthermore, the government interprets the provision through Article 5 (1) of the Mineral Act No. 4/2009 which obviously orders the executive authority to prefer domestic interest to foreign demand in the case of mining exploitation result. In this term, the minister of energy and resources would regularly issue minimum percentage of domestic market obligation that should be fulfilled by the coal mining industry for electrical power plant. The government has been consistently

burdening domestic market obligation against each mining industry which amount 25% of annually coal production since 2018.[24] Even, since 2020, the authority does not only impose quota minimum for domestic demand, but also apply imposition on coal ceiling price at 70 US$/ metric ton. This matter is conducted for ensuring affordable price for household consumers amid extremely high price of coal in international market.[25]

Domestic market obligation should be implemented by the government as the Act No. 30/2009 on electrical energy providing electric power holds a strategic role in term of national development. Furthermore, Article 2 (2) of the Act provides existence of electrical power should enable to guarantee affordable price of energy for domestic consumers. This effort could be applied through prioritizing production for domestic demand. Hence, the Act No. 30/2009 shows electric energy become pivotal role to reach prosperity of the people which could be considered for daily need as same as diet. This situation become reasonable for the country to provide basic necessity for improving human development index.[26] Moreover, Indonesia domestic electricity demand would consistently increase which is projected until 2035.[27]

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[24] The MER Decision No. 23/2018, the MER Decision No. 78/2019, the MER Decision No. 261/2019, the MER Decision No. 255/2020.

[25] The MER Decision No. 261/2019 *&* the MER Decision No. 255/2020.

[26] Bahman Zohuri and Patrick McDaniel, "The Electricity: An Essential Necessity in Our Life," *Advanced Smaller Modular Reactors*, no. August (2019), https://doi.org/10.1007/978-3-030-23682-3.

[27] Harta Haryadi and Meitha Suciyanti, "Analisis Perkiraan Kebutuhan Batubara Untuk Industri Domestik Tahun 2020-2035 Dalam Mendukung Kebijakan Domestic Market Obligation Dan Kebijakan Energi Nasional," *Jurnal Teknologi Mineral dan Batubara* 14, no. 1 (2018): 59, https://doi.org/10.30556/jtmb.vol14.no1.2018.192.

Such measures was also imposed on agriculture product, namely crude palm oil (CPO) which was thereafter revoked by the government. In this case, the Indonesian government carried out tighten export on the tropical oil based on the Minister of Trade Regulation No. 8/2022 on policy and export management which provides export of CPO prioritize domestic necessity. Article 8A of the regulation concern regulates CPO and related derivative products could be exported as long as domestic market obligation and domestic price obligation requirements have been met by the exporters. The provision attempts to control export on the certain product with emphasizing on domestic demand which purposing to control selling price in consumer level. This situation should be taken into force as domestic market suffer critical shortages caused by the exporter send the palm oil to foreign market. At the same time, the minister also promulgates The Minister of Trade Decision No. 170/2022 pertaining implementation of domestic market obligation and domestic price obligation which provide producers must allocate 30% of its production to domestic necessity.

In addition, domestic market obligation measures should be applied as regarding with the Act No. 18/2012 on food security. According to Article 1.1 of the Act, crude palm oil is categorized as food which is further proceed into cooking oil. Then, Article 12(1) of the Food Act obliges the government to responsible on domestic food availability. Articles 14(1) and 15(1) explain food security should be fulfilled through focusing domestic production for domestic demand. This action, actually, may have connection with imposition justification of public stockholding for food reserve. Although food security is considered as a Global Public Good which freely flow between producer and consumer under multilateral system, but the government has responsibility to ensure food supply for sufficient

nutrition of the people.[28] Particularly developing countries, food reserve is deemed essential issues facing price volatility and food availability, so, food intervention become vital policy to secure food nutrition for families.[29] This term has been proven by a research that palm oil consumption may protect personal health from some diseases such as cardiovascular, cancer and chronic diseases for containing high vitamin E.[30]

2) European's Policy on DMO for Critical Raw Materials

Availability of raw materials has also been becoming a serious concern for the European Union. The EU constitutes producer of some metals which are significantly used in green technologies development such as tungsten, molybdenum, rare earth, and copper originating from the blue continent.[31] Commencement of energy transitions require securing access to mining products become the great important factors to fulfil stockpile for domestic demand. At the same time, it may enable the Union to more effectively independent

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[28] Cristian Timmermann, "Food Security as a Global Public Good," *Routledge Handbook of Food as a Commons*, no. December 2018 (2018): 85–99, https://doi.org/10.4324/9781315161495-6.

[29] Alan Matthews, "Food Security and WTO Domestic Support Disciplines Post-Bali," *Agriculture and Food in the 21*, no. 53 (2014): 163–84, https://doi.org/10.3726/978-3-653-03559-9.

[30] Zulfitri Azuan Mat Daud, Deepinder Kaur, and Pramod Khosla, "Health and Nutritional Properties of Palm Oil and Its Components," *Palm Oil: Production, Processing, Characterization, and Uses*, no. December (2012): 545–60, https://doi.org/10.1016/B978-0-9818936-9-3.50021-6.

[31] Katarzyna Guzik et al., "Potential Benefits and Constraints of Development of Critical Raw Materials' Production in the EU: Analysis of Selected Case Studies," *Resources* 10, no. 7 (2021): 1–36, https://doi.org/10.3390/resources10070067.

from external suppliers in global markets, including support growth of industry concern in the EU level.

For tackling these issues, the European Union introduces a new strategic policy aiming for releasing the EU's dependency on importation of minerals. Firstly, the authority provides some raw materials products known as critical raw materials (CRM) in securing for strategic sectors such as renewable energy, e-mobility, digital, space and defence.[32] Currently, these products include 30 kinds of mining products identified as CRM namely, silicon metal, magnesium, hafnium, strontium, feldspar, gypsum, kaolin clay, limestone, silica, and sulfur, etc.[33] Secondly, the EU decides new strategies for securing the materials as importance substances through enactment of the European Green Deal, Industrial Strategy for Europe on the establishment of a framework to facilitate sustainable investment.[34] The CRM is stipulated regarding two indicators, which are economic importance for the EU and risk of supply disruption assessment.[35] Thus, these policies lead the EU to impose restrictions into the trading outside on scarce mineral to maintain global competitiveness in manufacturing industries, including supposed in accordance with the United Nations Sustainable Development Goals.

Under the European Green Deal (EGD), the community is planning to respond against worse situation on climate and environment following vision of the United Nations for sustainable

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[32] Gian Andrea Blengini et al., *Study on the EU's List of Critical Raw Materials (2020) Final Report*, 2020, https://doi.org/10.2873/904613.

[33] Blengini et al.

[34] Guzik et al., "Potential Benefits and Constraints of Development of Critical Raw Materials' Production in the EU: Analysis of Selected Case Studies."

[35] Ewa Lewicka, Katarzyna Guzik, and Krzysztof Galos, "On the Possibilities of Critical Raw Materials Production from the Eu's Primary Sources," *Resources* 10, no. 5 (2021), https://doi.org/10.3390/RESOURCES10050050.

growth.[36] It demonstrates comprehensive settlement on climate change neutrality by 2050.[37] Furthermore, it reveals that the EGD desires to integrate green development policies into various sectors such as transportation, energy, construction, agriculture, finance, social policy and industries.

Moreover, Industrial strategy frameworks connect the coherent European green objectives which require transition into green development. This would describe a green industrial policy that cover not only economic goals, but also involve societal achievement.[38] It is

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[36] Constanze Fetting, "The European Green Deal," *ESDN Report*, no. December (2020). Available online at < https://www.esdn.eu/fileadmin/ESDN_Reports/ESDN_Report_2_2020.pdf? *See also* Mario Munta, *The European Green Deal: A game changer or simply a buzzword?* (Berlin: Friedrich-Ebert-Stiftung, 2020). Furthermore, it is highlighted that the European Green Deal, launched in December 2019 by the European Commission, represents the European Union's overarching strategy to combat climate change, foster sustainable economic development, and reshape its economy towards environmental responsibility. At its core is the commitment to achieve climate neutrality by 2050, accompanied by an ambitious target to reduce greenhouse gas emissions by at least 55% by 2030. The deal encompasses a comprehensive set of policies, including a shift to renewable energy, increased energy efficiency, promotion of circular economy practices, and measures to protect biodiversity. The Farm to Fork Strategy addresses sustainability in agriculture, while the Just Transition Fund supports regions undergoing significant economic shifts. The plan underscores innovation and research as drivers of a green transformation, signaling a holistic and integrated approach to tackle the complex challenges of climate change and environmental degradation within the European Union. *Also see* Grégory Claeys, Simone Tagliapietra, and Georg Zachmann. *How to make the European Green Deal work*. (Brussels, Belgium: Bruegel, 2019); Sarah Wolf, et al. "The European Green Deal—more than climate neutrality." *Intereconomics* 56 (2021): 99-107; Eva Eckert, and Oleksandra Kovalevska. "Sustainability in the European Union: Analyzing the discourse of the European green deal." *Journal of Risk and Financial Management* 14, no. 2 (2021): 1-22.

[37] Fetting. *See also* Munta.

[38] Fetting. *See also* Munta.

translated into collaboration between public and private partnership. At the same time, the new industrial strategy aims to avoid external dependencies as result of global geopolitical uncertainty. It results in few strategies consisting (i) the need to face increasing global competition and enhance Europe's strategy autonomy, (ii) readiness for handling economic uncertainty, (iii) preparation to simultaneously transition in term of digital dan ecology.[39] These effort purpose to remain the EU as global technological power through integration of sources and manufacturing production. Thus, measures Additionally, growth of municipalities developments in European cities have consequences on the massive exploitation of mining land. These situations affect on the supply of the CRM so constrains measures that safeguard supply rather than import the materials.[40]

3) DMO Provisions Under GATT/WTO

The World Trade Organization support measures that prioritize domestic interest in particular circumstances which are governed under various trade agreements, especially General Agreement on Tarif and Trade 1994 (GATT 1994). The GATT 1994 covers some provisions which justify the member countries to impose domestic preference treatment to create stockpile stability. Article XI.2 GATT 1994 justifies domestic obligation through imposition of export restrictions, although it could not be permanently implemented, and some conditional circumstances required in order to apply it

[39] Simone Tagliapietra and Reinhilde Veugelers, *A Green Industrial Policy for Europe.* (Brussel, Belgium: Bruegel, 2021). Available online at https://www.wita.org/wp-content/uploads/2021/01/Bruegel_Blueprint_31_Complete_151220.pdf.

[40] Katarzyna Guzik, Anna Burkowicz, and Jarosław Szlugaj, "The EU's Demand for Selected Critical Raw Materials Used in the Photovoltaic Industry," *Gospodarka Surowcami Mineralnymi / Mineral Resources Management* 38, no. 2 (2022): 31–59, https://doi.org/10.24425/gsm.2022.141666.

smoothly without complaining from other members. However, Article XI.2 emphasizes on the justification to impose export restrictions which basically prohibited under Article XI.1 GATT 1994. Imposition of this provision obviously may induce trade distortion which significantly affect global market reserve.[41] At the same time, application Article XI.2 be commonly carried out for export quota as well to mitigate critical shortages threatening of food or other essential materials.[42] It would be probably to grant more supply for domestic market than foreign demand with only less amount of quota for export.

Meanwhile, Article XX also could justify implementation of domestic market obligations as long as the measures are not arbitrary or unjustifiable discrimination between the parties. Specifically, under Article XX(i) seems more obvious to apply domestic market obligations permanently for certain material deemed necessary for domestic processing industry although the Article concerns describes on justification of export restriction on raw materials. It could be conducted as effort to stabilize domestic price of such materials which is facing high global price. Article XX(i) emphasizes the restrictions could be imposed in terms of the processing industry rely on such materials which need to be ensure sustainability of the stockpile. Regarding the Geneva Session of the Preparatory Committee in 1947, the existence of Article XX(i) 1947 means to ensures domestic

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41 Jane Korinek and Jeonghoi Kim, "Export Restrictions on Strategic Raw Materials and Their Impact on Trade and Global Supply," *Journal of World Trade* 45, no. 2 (2011): 255–81, https://doi.org/10.1787/9789264096448-7-en.

42 Mitsuo Matsushita, "Export Controls of Natural Resources and the WTO/GATT Disciplines", *Asian Journal of WTO & International Health Law and Policy* 6, no. 2 (2011): 281-312.

stockpile with affordable prices.[43] The control measures should be carried out to prevent the essential materials move outside the local market which affect shortages or increase price in the local market. In this terms, the member argues that the provision is able to take into force in terms of general scheme of internal price stabilization is in operation.[44] Finally, the 1950 of Working Party Report on "the Use of Quantitative Restriction for Protective and Other Commercial Purposes" concludes that the provision concern is not allowed to impose restrictions upon export of a raw material in order to protect or promote a domestic industry, either by providing price advantage for the related industry or by reducing the supply of such material to foreign competitors. However, the Working Party agree that imposition of export restrictions would have to be determined on the basis of fact in each individual case.[45]

Both Article XI.2 and Article XX(i) regulates the similar issues which justify imposition of domestic market obligations. As those provisions apply different treatment concerning with period of time to impose the measures, those allow tightening export on materials which are considered essential or necessary for exporting country. Furthermore, although the Working Party does not allow government's intervention toward price favoring advantages for domestic industry, Article XX(i) clearly grants authority for the exporting country to implement stabilization plan designed by the government concern. Those situations are different with justification under Article XI.2 GATT which does not need to present national working planning strategy for evidential proof because it should

[43] Rüdiger Wolfrum, Peter-Tobias Stoll, and P. Holger. "Article XX General Exceptions [Chapeau]", In *WTO - Trade in Goods*, (Leiden: BRILL, 2011), pp. 464–478, https://doi.org/10.1163/ej.9789004145665.i-1228.168.

[44] Wolfrum, Stoll, and Holger.

[45] Wolfrum, Stoll, and Holger.

apply for temporarily.[46] Meanwhile, Article XX(i) GATT 1994 desires that the restrictions should be applied through stabilization mechanisms rules created to ensure sustainability of the domestic industry operation. This effort could be related with non-discrimination treatment between state owned industry and foreign investment industry which receive equal treatment under the stabilization plan. The government could determine the kind of materials and industry which are appropriate categorized as necessary and essential for public matters. Thus, governmental stabilization plan become important element designing utilization of raw materials for domestic interest which cover upstream until downstream processing.

C. Indonesia's Opportunity for DMO on Nickel and Bauxite

Considering the current dispute between EU and Indonesia in Dispute Settlement Body of WTO, application of Domestic Market Obligations could be relevant to be implemented in terms of the restrictions on nickel and bauxite. The measures is commonly oriented for balancing between domestic and foreign demand with allocating the commodity heavier for export market as implemented by Indonesia on coal and CPO products. In addition, Article XX(i) GATT 1994 could become legal basis for the measures implemented

[46] Widiatedja, "Indonesia's Export Ban on Nickel Ores: Does It Violate the World Trade Organization (WTO) Rules?". *See also* Ira Fadilla Rohmadanti, Febriansyah Ramadhan, and Ilham Dwi Rafiqi. "Disharmony of Domestic Refining Provisons for Mineral and Coal in Indonesian Laws and Regulations." *Pandecta Research Law Journal* 17, no. 1 (2022): 1-7; Ridwan Arifin, "Indonesian Political Economic Policy and Economic Rights: An Analysis of Human Rights in the International Economic Law." *Journal of Private and Commercial Law* 3, no. 1 (2019): 38-49.

within longer period as different with Article XI.2 (a) which cover for temporary.

Article XX(i) GATT 1994 provides some elements to impose export restrictions, namely the materials should necessary, domestic processing industry requires such materials, and the measures is a part of a governmental stabilization plan. Under Article XX(i) GATT 1994, the domestic market obligations on nickel and bauxite are probably implemented to supply domestic demand consistently, including guarantee supply for foreign markets. It could be justified to impose export restrictions for both materials without mentioning the period time of the measures. However, Article XX(i) provides that imposition of restrictions should allocate for processing industry which rely on raw materials. Dependencies on the raw materials prove it constitutes necessary materials to keep in operation for the industry concern. Moreover, the allocation needs to be taken into consideration demand on the materials and probability status of global public good for the materials.

For element of material necessary, it could refer to the common practices that Indonesia adopts domestic market obligations policy on coal and crude palm oil. Both raw materials are provided as strategic and essential products that reasonably influence human basic need, such as electric and cooking oil. The measures concern could be applied for nickel ore and bauxite as well which would hold important position for domestic sustainable development although both minerals do not directly pose relation with the basic need. However, issue of air pollution could become legal basis to impose the measures as collective commitment to take action against climate change in accordance with the Paris Agreement 2015. For this context, both raw materials should be provided as strategic materials to produce friendly environmental products. It seems like the measures which is promulgated by the US administration to ensure supply for

domestic industry. For this case, nickel and bauxite are pivotal materials to create electric vehicle battery. Indonesia has targeted to produce EV begun from 2020-3025 as accordance with Industrial Minister No. 27/2030 concerning development plan of EV. This regulation targets Indonesia may produce the electric vehicle massively at almost eleven million units.'

However, application of Article XX(i) desires the measures is allocated to domestic processing industry which has established in the country. This matter become important to prove that the domestic market obligations would not distort distribution of such raw materials to international market with supplying guarantee for the related industry. In that situation, the government could assume the allocation would be divided between export demand and domestic demand. Unfortunately, demand on the raw materials in domestic markets are remains unpredictable as lower development of purifications facilities in the country. it is shown from data of the Ministry of Mineral and Energy Resources revealing that the government targets roughly 29 nickel purification facilities and 9 bauxite facilities development until 2024 although those figures are not reached yet. However, the demand could be adjusted by looking at current percentage of domestic demand which regularly evaluated by the authorities.

In addition, existing Indonesia mineral act requires revision relating with legal position of both minerals in the provision of the act. The current Mining Act poses weaknesses in terms of the pivotal position of the mining resources. Article 4 and Article 5 of the Mining Act No. 3/2020 inspires from the Indonesian Constitution which strongly confirm that throughout resources must be allocated for Indonesian prosperity. However, the constitution provision concerns describe a general provision which is futile when it demonstrates into

the act. It might interpret that export of those materials may improve prosperity from selling of the materials. Although the constitutional court verdicts strongly push pressures on the government to take into force domestic mining processing policy. More provisions need to provide specific provisions to avoid legal action from members of the WTO.

The act provides that the government has full authority to control usage of the raw materials, including production, selling, and market prices. These could apply to protect national interest as the foremost reasons to restrict export of the raw materials. Thus, the Act requires designation of strategic positions for the materials revealing it must prioritize for domestic need. These efforts intend for avoiding weakness as both Article XI.2(a) and Article XX (i) of the GATT Agreement justify export restrictions for domestic interest solely for essential reasons. The essential reason might cover domestic demand on the raw materials which relate with high demand in global markets level so would influencing unprecedented situation that affect domestic stockpile.

In addition, Indonesia mining act entails provisions which governs that throughout certain mining areas should also categorize the minerals as strategic resources. Stipulation for the mineral's categorization need to prove that the mining products are unrenewable resources which are absolutely required for strategic demand as well. For these terms, nickel and bauxite production should follow government working plan. Currently, Article 10 of Indonesia Mining Act No. 3/2023 does not provide mining resources site as strategic location, however, the provision only reveals on working site categorization. Foremost, huge deposits of nickel and bauxite reserves may need additional provisions relating to government working plan, domestic need, and export demand. These purposes are to control nickel and bauxite exploitation regarding

supplying for domestic industry through application to the government. For this reason, majority production is allocated Meanwhile, export demand could generate from exceed production which majority allocate for domestic demand. Thus, production control is strongly required in order to avoid that majority production obviously supply for domestic demand.

4. Conclusion

Indonesia's imposition of export restriction on nickel and bauxite ores poses potential risk to infringe against Article XI.2(a) GATT 1994. The current situation is proving that critical shortages is not suffered by the country. Although all targeted development of purification industries is completely existed, the restrictions measures may not be hold for longer time as Article XI.2(a) GATT requires for only temporary moment. The provision makes obstacles for Indonesia to permanently restraints export of the raw materials. However, implementation of Domestic Market Obligations (DMO) could answer the challenge for domestic demand in the future. It would seem like the imposing measures on coal and CPO categorized strategic commodity for basic human necessity. The government should provide nickel and bauxite as strategic raw materials for sustainability development of electric vehicles which are oriented for reducing greenhouse gas emissions as stipulated in Paris Agreement on Climate Change. At same time, the DMO could balance demand between international markets and domestic industries. Thus, the measures do not extremely affect to the global supply chain.

Meanwhile, Article XX(i) GATT 1994 does not prohibit imposition of mineral export restrictions to ensure essential quantities for domestic industries. The provision justifies that export restrictions could guarantee supply for domestic demand consistently. The measures

could be applied through mandatory allocation for domestic demand before departing for export. The provision concerns open opportunity for Indonesia to apply restrictions on both raw materials with adjustment allocation regularly for balancing between domestic and global demand. In addition, Indonesia Mining Act No. 3/2020 requires to amend some provisions concerning strategic status of the raw materials for domestic economy. Any raw materials, particularly relating to EV industries, should be categorized as strategic raw materials. The categorization also affects the mining resources site for controlling production. Those efforts include institutional role which surveillance between production and domestic industry need. These could avoid the impact on foreign demand due to balancing production for domestic and export.

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Knowledge without justice ought to be called cunning rather than wisdom.

Plato

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