



EUROPEAN UNION AGREEMENT IN OIL SECTOR: A *SYSTEMATIC LITERATUR REVIEW*

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui kebijakan uni eropa dalam ekspor pada bidang energi terutama sektor perminyakan. Metode penelitian yang diterapkan pada penelitian ini adalah systematic literature review yang menggunakan 579 artikel ilmiah bersumber dari databse scopus. Review artikel menggunakan aplikasi Vosviewer. Hasil penelitian mengungkapkan bahwa Uni Eropa memiliki beberapa kebijakan baru untuk ekspor minyak dari beberapa negara. Hasil penelitian ini berkontribusi pada pengembangan roadmap penelitian tentang kebijakan yang digunakan Uni Eropa, Besarnya jumlah industri kelapa sawit di beberapa negara telah membuka banyak lapangan pekerjaan bagi masyarakat sekitar sehingga melalui industri ini telah berperan besar dalam menyerap tenaga kerja. Keterbatasan penelitian ini adalah artikel yang digunakan hanya bersumber dari database scopus sehingga temuan penelitian tidak dapat menggambarkan secara komprehensif tentang isu kebijakan uni eropa dalam ekspor minyak tersebut. Penelitian berikutnya perlu menggunakan artikel ilmiah yang bersumber dari database internasional bereputasi lainnya, seperti Web of Science dan Dimensions Scholars.

Kata Kunci: ekspor, energi, kebijakan, minyak

ABSTRACT

This study aims to determine the European Union's policy on exports in the energy sector, especially the oil sector. The research method applied in this study was a systematic literature review using 579 scientific articles sourced from the Scopus database. Review articles using the Vosviewer application. The results of the study reveal that the European Union has several new policies for oil exports from several countries. The results of this study contribute to the development of a research roadmap on policies used by the European Union. The large number of palm oil industries in several countries have opened up many jobs for the surrounding community so that this industry has played a major role in absorbing labour. The limitation of this research is that the articles used are only sourced from the Scopus database so that the research findings cannot comprehensively describe the European Union's policy issues on oil exports. Subsequent research needs to use scientific articles sourced from other reputable international databases, such as Web of Science and Dimensions Scholars.

Keywords: Export, Energy, Oil, Policy

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INTRODUCTION

How much energy is used worldwide, including the use of energy from petroleum and palm oil. This energy itself is a consumption need for the oil market which continues to increase as an opportunity to export, how many countries that have supplies of crude oil and palm oil export to countries that need these energy supplies. This energy is one of the biggest incomes for exporting countries, one of which is Indonesia. Indonesia is currently the largest producer of palm oil or CPO (Crude Palm Oil) in the world. Its natural wealth can produce various kinds of export goods.

Many previous studies have explained that new European Union actions or policies are focused on various topics and issues. (Makareviciene et al., 2020) in a study conducted in Malaysia due to the European Union's new policy on oil exports which is discriminatory against palm oil as a directive to classify commodities as unsustainable by causing deforestation and climate change, (Mayr et al., 2021) in his study explains that WTO legislation and analyzes the compatibility of EU measures with the General Agreement on Tariffs and Trade. Another study conducted by Rum, IA (2022) shows that the European Union will gradually stop using palm oil for plodiesel feedstock. Environmental concerns are the main reason for the European Union to implement this initiative. Analyze the economic and environmental impact of the European Union's import ban on Indonesia at the provincial level.

Although many previous studies have explained the existence of a new policy from the European Union regarding oil exports, not many previous studies have used the systematic literature review approach with articles sourced from the Scopus database and not many have used the article review method with the Vosviewer application. Therefore, this study focuses on review papers with the SLR approach which uses 579 scientific articles sourced from the Scopus database. The SLR method is a scientific method that has strengths and advantages in understanding research issues based on previous research.

The focus of this research study leads to efforts to answer the research question, namely "How will the new provisions issued by the European Union affect countries that export oil". The research method used is qualitative content analysis using the SLR approach and article analysis using Vosviewer. This research contributes to the development of knowledge, especially the science of import and export related to the economy between the two countries, and to the development of policies for handling the economy in Indonesia.

LITERATURE REVIEW

This policy issued by the European Union has received the attention of several people. The European Union itself also issued this policy in 2019 which raised several public opinions that discussed the country's diplomacy and economy. Research with themes or topics has been studied by many people, including explaining that this policy was made to build and shape cooperation between the several countries that will be involved. This certainly greatly affects several countries, especially Indonesia which is one of the countries with the largest contribution of Crude Palm Oil (CPO) or palm oil in the world. Here it might be said that this EU policy tends to be discriminatory.

This policy is called the Renewable Energy Directive (RED) II which will also affect diplomacy, especially in the economic sector, because economic diplomacy is closely related to economic problems faced by a country with other countries or other entities related to the economy or politics of a country. The European Union also creates tension between the government and other actors, including private business actors and non-governmental organizations.

The RED II policy that has been decided by the European Union is not just about environmental issues, because if we examine it further, there is a political element in the policy. The policy that has been made by the European Union Parliament is one form of their trade protection, because as we know that European Union countries mutually develop types of vegetable oils such as soybean oil, canola oil and sunflower seed oil.

Researcher Acevedo, RA, (2022) expressed an overview opinion on the EU's current energy dependence and the possible threat it poses to economic growth and diplomatic freedom, further indicating that the EU needs to secure reliable energy suppliers to ensure economic growth reduce energy scarcity and increasing diplomatic freedom. Then according to (Mayr et al., 2021) The European Union's new rules regarding biofuels have led to increased tensions between the European Union and some of its trading partners. Highly controversial measure is the 'freezing and phasing out of certain biofuels in the transport sector. The WTO also analyzes the compatibility of EU measures with the General Agreement on Tariffs and Trade (GATT). Meanwhile according to Purnomo, H (2020) Palm oil makes a significant contribution to the Indonesian and Malaysian economies through private companies, state-owned companies and smallholders, with the two countries supplying 85% of global palm oil. The domestic and international community, particularly the European Union, have raised concerns about the sustainability and impact on forest conservation. For example, the European Parliament in 2017 passed a resolution to limit the ability of EU countries to count imports of palm oil-based biodiesel against their 2030 renewable energy targets. Then according to Maricic, VK (2018) the progress of reform of the Serbian oil sector regarding the adoption of new laws relating to key issues for adjustment to EU directives. Also,

Researcher named Ibanez, J (2020) who discusses Spain and Italy, the main sector as energy production or synthesis of bio-lubricants is one of the most relevant priorities in the European Union normative context In many countries, the development of new production processes based on circular economy models , as well as future energy definitions and production targets, involve the utilization of waste as a raw material. Then according to Varkkey, H (2021) in the palm oil sector in Southeast Asia, where Indonesia and Malaysia are known as the two largest producers and exporters of palm oil. It aims to question the effect of the expanding role of the market on power dynamics and political processes. to biofuels and palm oil must be considered carefully, because the former can degrade the quality of regulations in biofuel sustainability regimes, the latter undermine the market for sustainable palm oil, and the latter indirectly support unsustainable practices. outside the palm oil sector

With previous research discussing the new policy issued by the European Union, we can take knowledge about this policy that will make several decisions that will impact several countries. This policy also affects the safety of nature in the world, especially Southeast Asia, which is the largest area for oil palm.

RESEARCH METHODS

This study uses the Systematic Literature Review method, using this method can obtain ideas that can assist in completing the research. This SLR method can help to avoid irrelevant data in research. Researchers can also avoid subjective errors that are obtained when taking references, by using this method researchers can retrieve data from the Scopus database used by international researchers.

Figure 1. Research Metode



This research using the SLR method has the following steps; determine the theme to be studied. Then do a search for articles that have the same theme to be used as references, to find references to articles that have quality results, you can use the Scopus database. Then identify further research themes and develop references obtained from articles to produce research articles that are reviewed.

The work on this article was also assisted by several applications, namely Mendeley and Vosviewer. For Mendeley's use, it makes it easier to filter references to articles that number more than 500, Mendeley can also find out the title, author, and year of publication of the article and can also choose articles that are still relevant or 5 years back from 2018-2022. Then the use of Vosviewer to describe a relationship between the title, author and theme with the visual bibliometric network obtained from a collection of articles that have been filtered in the Mendeley software.

RESULT AND DISCUSSION

Result Research Trend

This study has been done beforehand by previous have found the percentage of the number of uploads based on the year published in the Scopus database

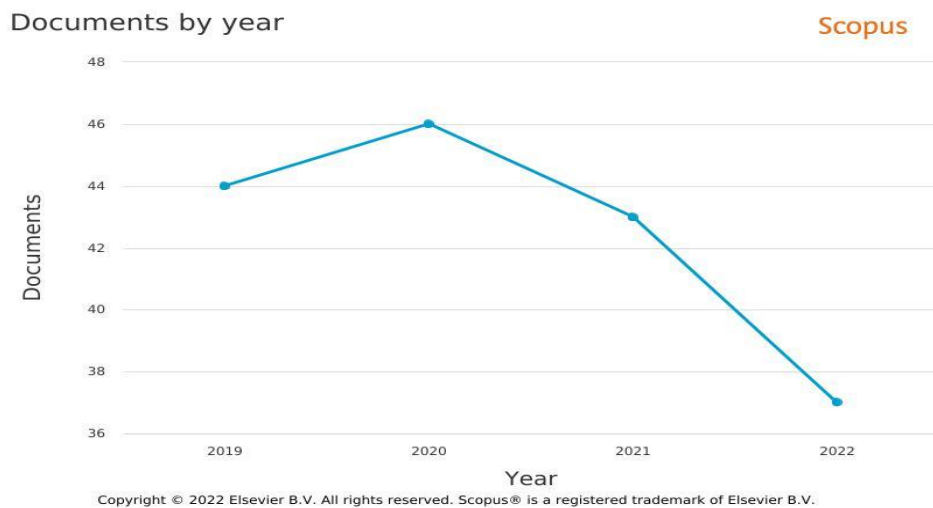


Figure 2. Document by year

The diagram above shows that there is an up and down trend for publication of oil sector articles in the European Union. It can be seen that from 2019 to 2020 there was an increase, initially from 44 to 46 which could be interpreted at that time, this theme received international attention, but then from 2020 to 2022 there could be a quite drastic decrease, from the original 46 published articles to around 36 articles. This may have been caused by other, more important things that happened that year

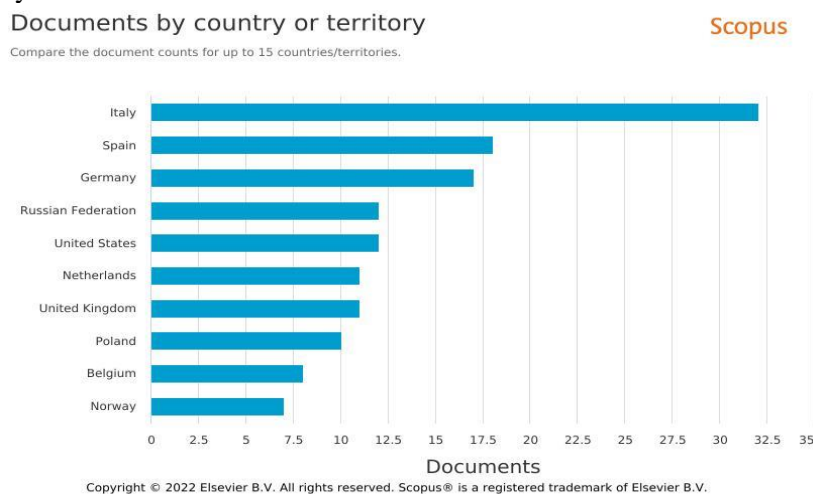


Figure 3. Document by country

For this diagram, it can be interpreted that Italy is the country that has published the most articles on the topic of the oil sector in the European Union area, around 32 articles. Compared to other countries such as Spain, Germany, Russia, America, England, Poland, Belgium and Norway. But these countries discuss this theme with each other, because this issue is very relevant to these countries.

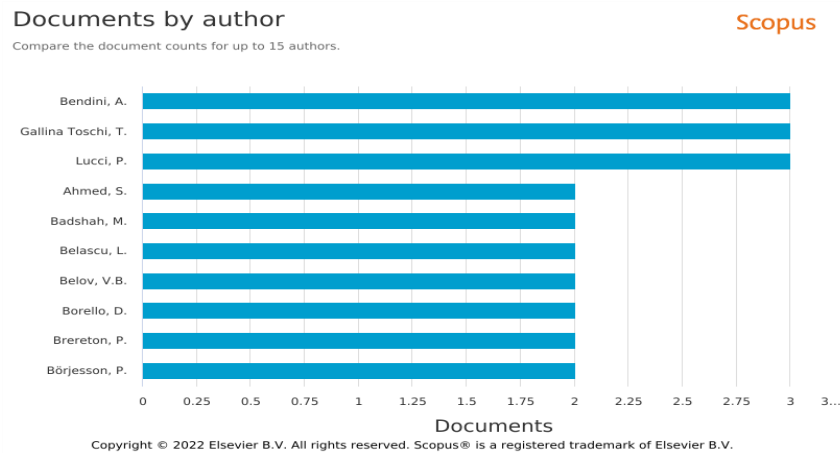


Figure 4. Document by author

The figure above shows that there are several authors and the number of journals they publish in the Scopus database, in the data there are 3 authors who have the highest number of articles. The number of articles published by these authors is 3 articles, the authors are named Bendini, A. Gallina Toschi, T. and Lucci, P. for other authors only about 1 to 2 articles.

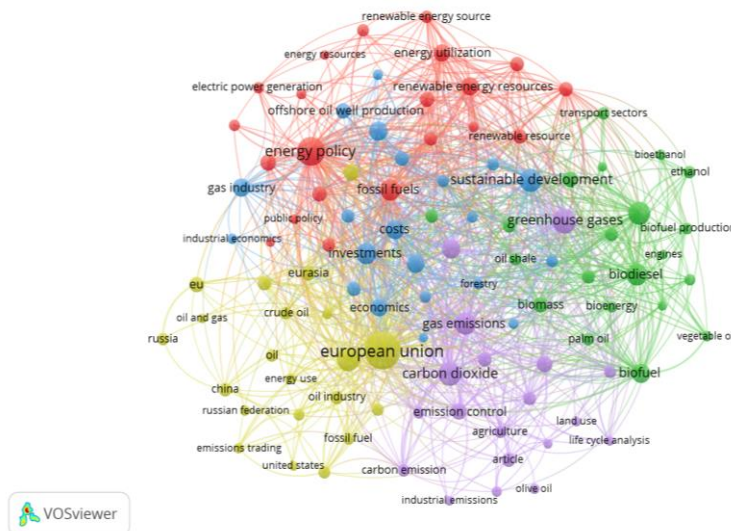


Figure 5. Cluster Vosviewer

Based on the analysis released by the Vosviewer application above, it can be interpreted that the European Union, Energy Policy, Environmental Impact and Sustainable development are large clusters to combine with other clusters. In the bibliometric network it is shown that the European Union can cover all clusters.

Tabel 1. Cluster

Cluster	Concept Name	Total
Cluster 1	alternative energy, electric power generation, electricity, electricity generation energy conservation, energy management, energy policy, energy resources, energy sector, energy utilization, environmental protection, fossil fuels, marketing natural gas, public policy, renewable energies, renewable energy, renewable energy resources, renewable energy sources, renewable resources, wind power	21
Cluster 2	alternative fuels, biodiesel, bioenergy, bioethanol, biofuel, biofuel production, biofuels, biomass, cropsengines, ethanol, feedstocks, fuels, international trade, oil shale, oils and fats, palm oil, sustainability, transport sector, vegetable oil, vegetable oils	21



Cluster 3	commerce, competition, cost effectiveness, costs, decision making, economic analysis, economic and social effects, economics, energy efficiency, forestry, gas industry, gasoline, industrial economics, investments, laws and legislation, offshore oil well production petroleum industry, petroleum transportation , risk assessment, supply chains, sustainable development	21
Cluster 4	china, crude oil, emissions trading, energy, energy market, energy security, energy use, environmental economics environmental policy, eu, Eurasia, Europe, european union, fossil fuel, investment, oil, oil and gas, oil industry, Russia, russian federation, united states	21
Cluster 5	agriculture, article, carbon, carbon dioxide, carbon emission, climate change, emission control, environmental impact, gas emissions global warming, greenhouse effect, greenhouse gas, greenhouse gases, industrial emissions, land use life cycle, life cycle analysis, olive oil, priority journals	19



OnCluster 1 The dominant concept is an explanation of energy categories such as renewable and non-renewable, but there are also rules about energy. For example, as stated by (A. Guldson, 2015) the European Union has overtaken the United States as the leader with the most advanced or demanding environmental regulations. However, it is surprising that there is very little robust comparative evaluation of environmental regulatory outcomes or industry environmental performance levels in the EU and US. Much is then known about the economic incentives they contain to promote reduction and innovation, and research focuses on short-term aggregate effects at the sector and system levels. However, little is known about how the EU influences companies, including their strategies, long-term innovation plans,

OnCluster 2 contains a concept that means the type of oil or fuel, as stated by (Abrahám, J 2018) political and military control over energy resources to establish policies and risk management measures that affect all elements of the energy system. Systems put in place to achieve energy security are driving forces towards energy innovation or emerging trends in the energy sector, and also critically analyze the meanings and approaches to sustainable development that are being adopted and/or reformulated in the EU bioeconomic policy debate (EU) that just appeared.

Furthermore, Cluster 3 explains that sustainable activities with the petroleum industry, as stated by (Buonocore, E 2019). The use of woody biomass for bioenergy production can provide important benefits, including increased energy security due to less reliance on fossil fuel supplies, mitigation of climate impacts, and revitalization of rural economies linked to new job opportunities. Then explains the analysis of the impact of the crisis on the world metallurgical situation, the main factors of industrial development in the current conditions, when industrial production (especially the automotive industry),

Cluster 4 contains a country's policy regarding the use of oil or the export and import of this oil as explained (Tsangas, M 2019). Several social and economic benefits can be achieved from resource exploitation. However, natural gas is a non-renewable energy source, associated with major environmental problems from fossil fuels. The research objective of this work is to evaluate the sustainability of the new hydrocarbon sector. Several social and economic benefits can be achieved from the exploitation of the resource. However, natural gas is a non-renewable energy source, associated with major environmental problems from fossil fuels. The research objective of this work is to evaluate the sustainability of the new hydrocarbon sector. Then describes overcoming these limitations, Sequential oil industry wastewater treatment processes using isolated lipolytic bacterial strains and biodiesel production from non-edible vegetable oils were studied. In this study, efficient lipase-producing bacteria were isolated and evaluated for the production of biodiesel from mustard, soybean, castor and taramira oils using methanol for oil transesterification and bioremediation.

Cluster 5 and also the last one is due to the use of energy in oil as described by (Kama, K 2016) exploitation which is considered indispensable for energy security reasons. Based on a detailed study of oil shale exploitation in Estonia, this paper specifically analyzes the politics of knowledge that have enabled carbon-intensive and energy-efficient industries to survive at the national level and, moreover, subvert the neoliberal imperatives of deregulation and decarbonization of the emerging energy sector. of European Union policy

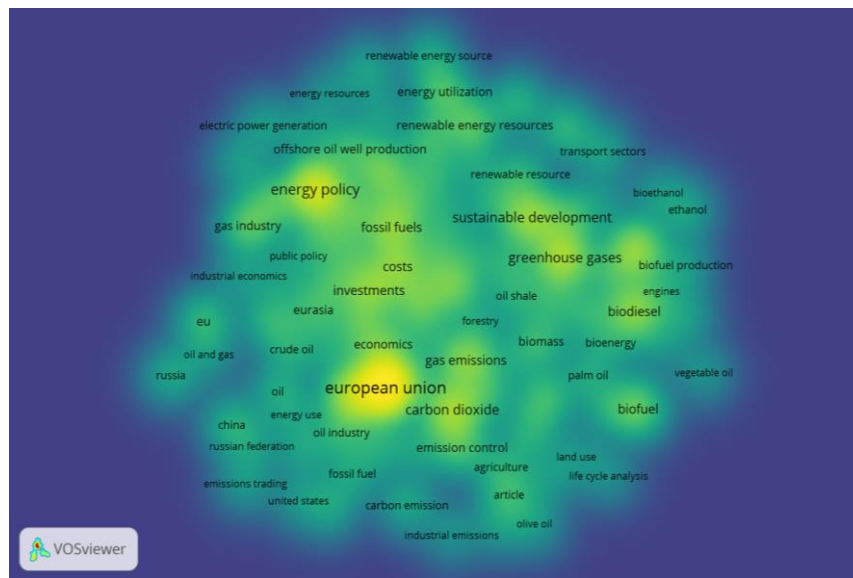


Figure 6. Density

The picture above explains that darker or thicker colors show the dominant level in the theme of the oil sector in the European Union. Like EU, Energy Policy which has been discussed by many researchers before. For more intense colors, it has also been used as a benchmark by other writers.

Discussion

It should be noted that this policy means that the European Union will gradually limit and even eliminate the use of biofuels from the market. It is especially important for the methodology for determining the normal value for export prices and domestic prices for producers or exporters who have affiliates abroad. Every country has the right to file a lawsuit against injustice in international trade, especially with the issuance of the European Union Resolution on palm oil and deforestation in April 2017. From the results of several previous studies and discussions, identify issues used by the US and Europe to hinder coconut exports Indonesian palm oil.

This situation makes the EU even more in a dilemma regarding imports of palm oil from Indonesia. The need for palm oil is increasing day by day in Europe, while the available land is very limited. This causes the need for palm oil cannot be replaced with other oils. There have been various speculations that the discrimination against palm oil by the European Union Parliamentary Council has political interests. This is related to vegetable oils produced by countries in Europe where deforestation is not an issue. especially America and Europe, especially with the issuance of the European Union Resolution on palm oil and deforestation in April 2017. From the results of several previous studies and discussions. this sub-target was introduced by the co-legislator in the final agreement. This transport target requires member countries to require fuel suppliers to supply a minimum of 14% of the energy consumed in road and rail transport by 2030 as renewable energy. Indonesia seeking diplomatic cooperation with several countries, especially palm oil producing countries such as Malaysia, Thailand, Colombia, and other countries as well as working with a number of international organizations, Many workers will be laid off and if no action from the government can make the number of unemployed and poverty in Indonesia is increasing Many companies will suffer losses and may also close due to reduced market demand Diplomatic relations between Indonesia and the European Union are strained and this can affect other cooperation. Taking into account the effects of ILUC will determine how



much the influence of ILUC on increasing demand or the influence of the market in increasing purchases of oil from food and feed

CONCLUSION

The issuance of the European Union Parliamentary Policy and the decisions of the European Union Commission are a challenge for oil exporting countries. This policy will also disrupt Indonesia's palm oil exports to the European Union, which is the second largest palm oil importer. Based on existing data and facts, vegetable oil EU countries are making widespread deforestation however produce low production volumes. Compared reversed with oil palm which uses more land slightly but produces more production volume big This palm oil resolution is considered a form of discrimination and has political motives. Indonesia and other countries will look for new markets after the issue of the European Union's palm oil embargo. The European Union's National Interests are represented by various interest groups such as members of Parliament and the European Commission as well as lobby groups which consist of various European Union vegetable oil industry groups, This, of course, is also based on the interests of the European Union to protect their vegetable oil commodities which still cannot compete with cheaper palm oil. This research article contributes to the development of policies carried out by the European Union for export countries to act further and take bold action on these policies, not only that it develops the science of further shellfish economic diplomacy. then affect the course of export import of all countries

REFERENSI

- Varkkey, H. (2021). TRANSBOUNDARY ENVIRONMENTAL GOVERNANCE IN THE EU AND SOUTHEAST ASIA: CONTESTING HYBRIDITY IN THE BIOFUELS AND PALM OIL REGIMES. *Journal of ASEAN Studies*, 9(2), 139–158. <https://doi.org/10.21512/JAS.V9I2.7757>
- Rum, I. A., Tukker, A., de Koning, A., & Yusuf, A. A. (2022). Impact assessment of the EU import ban on Indonesian palm oil: Using environmental extended multi-scale MRIO. *Science of the Total Environment*, 853. <https://doi.org/10.1016/j.scitotenv.2022.158695>
- Kamaruddin, H. (2020). Voluntary partnership in palm oil trade: A sustainable approach for Malaysia. *International Journal of Innovation, Creativity and Change*, 12(12), 1044–1056. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85084519130&partnerID=40&md5=030676ac9f0e42df3fe714099f8802eb>
- Adno, Y. L. (2020). World ferrous metallurgy: Crisis around the turn of a new decade. *Chernye Metally*, 2020(7), 51–58. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85089211088&partnerID=40&md5=23970465056ccc68c9fec63122d84f6d>
- Acevedo, R. A., & Lorca-Susino, M. (2021). The European Union oil dependency: a threat to economic growth and diplomatic freedom. *International Journal of Energy Sector Management*, 15(5), 987–1006. <https://doi.org/10.1108/IJESM-10-2020-0010>
- Skjærseth, J. B. (2013). Governance by EU emissions trading: Resistance or innovation in the oil industry? *International Environmental Agreements: Politics, Law and Economics*, 13(1), 31–48. <https://doi.org/10.1007/s10784-012-9201-2>



- Maricic, V. K., Danilovic, D., Lekovic, B., & Crnogorac, M. (2018). Energy policy reforms in the Serbian oil sector: An update. *Energy Policy*, *113*, 348–355. <https://doi.org/10.1016/j.enpol.2017.11.011>
- Mayr, S., Hollaus, B., & Madner, V. (2021). Palm oil, the RED II and WTO law: EU sustainable biofuel policy tangled up in green? *Review of European, Comparative and International Environmental Law*, *30*(2), 233–248. <https://doi.org/10.1111/reel.12386>
- Ibanez, J., Martín, S. M., Baldino, S., Prandi, C., & Mannu, A. (2020). European union legislation overview about used vegetable oils recycling: The Spanish and Italian case studies. *Processes*, *8*(7). <https://doi.org/10.3390/pr8070798>
- Gouldson, A., Carpenter, A., & Afionis, S. (2015). Environmental leadership? Comparing regulatory outcomes and industrial performance in the United States and the European Union. *Journal of Cleaner Production*, *100*, 278–285. <https://doi.org/10.1016/j.jclepro.2015.03.029>
- Abrhám, J., Britchenko, I., Jankovic, M., & Garškaite-Milvydiene, K. (2018). Energy security issues in contemporary Europe. *Journal of Security and Sustainability Issues*, *7*(3), 387–398. [https://doi.org/10.9770/jssi.2018.7.3\(1\)](https://doi.org/10.9770/jssi.2018.7.3(1))
- Rana, Q. U. A., Laiq Ur Rehman, M., Irfan, M., Ahmed, S., Hasan, F., Shah, A. A., Khan, S., & Badshah, M. (2019). Lipolytic bacterial strains mediated transesterification of non-edible plant oils for generation of high quality biodiesel. *Journal of Bioscience and Bioengineering*, *127*(5), 609–617. <https://doi.org/10.1016/j.jbiosc.2018.11.001>
- Kama, K. (2016). Contending geo-logics: Energy security, resource ontologies, and the politics of expert knowledge in Estonia. *Geopolitics*, *21*(4), 831–856. <https://doi.org/10.1080/14650045.2016.1210129>
- Buonocore, E., Paletto, A., Russo, G. F., & Franzese, P. P. (2019). Indicators of environmental performance to assess wood-based bioenergy production: A case study in Northern Italy. *Journal of Cleaner Production*, *221*, 242–248. <https://doi.org/10.1016/j.jclepro.2019.02.272>
- Tsangas, M., Jeguirim, M., Limousy, L., & Zorpas, A. (2019). The application of analytical hierarchy process in combination with Pestel-SWOT analysis to assess the hydrocarbons sector in Cyprus. *Energies*, *12*(5). <https://doi.org/10.3390/en12050791>
- Purnomo, H., Okarda, B., Dermawan, A., Ilham, Q. P., Pacheco, P., Nurfatriani, F., & Suhendang, E. (2020). Reconciling oil palm economic development and environmental conservation in Indonesia: A value chain dynamic approach. *Forest Policy and Economics*, *111*. <https://doi.org/10.1016/j.forpol.2020.102089>
- Ramcilovic-Suominen, S., & Pülzl, H. (2018). Sustainable development – A ‘selling point’ of the emerging EU bioeconomy policy framework? *Journal of Cleaner Production*, *172*, 4170–4180. <https://doi.org/10.1016/j.jclepro.2016.12.157>