

PAPER • OPEN ACCESS

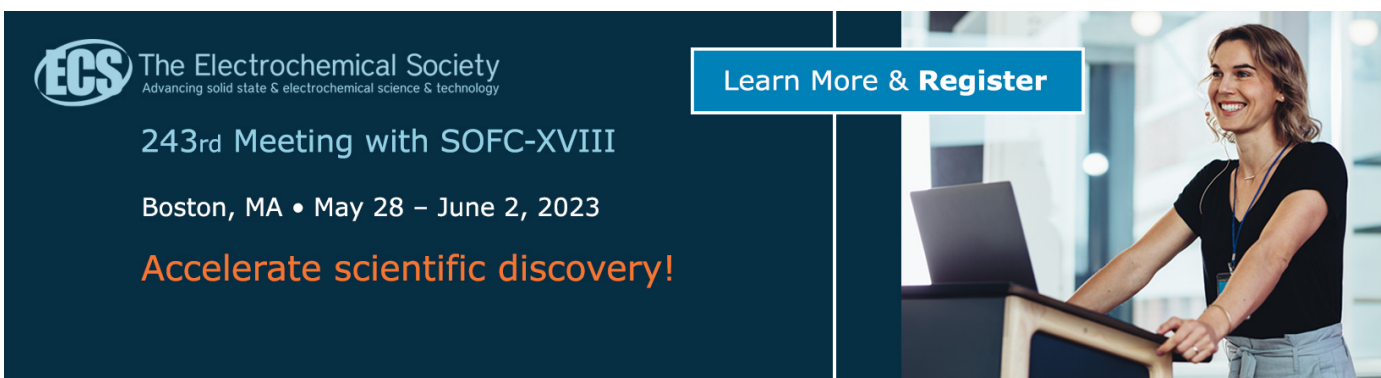
The government policy on the covid-19 handling viewed from environmental and biodiversity perspectives

To cite this article: Suwari Akhmaddhian *et al* 2021 *IOP Conf. Ser.: Earth Environ. Sci.* **819** 012044

View the [article online](#) for updates and enhancements.

You may also like

- [The elastic network model reveals a consistent picture on intrinsic functional dynamics of type II restriction endonucleases](#)
A Uyar, O Kurkcuoglu, L Nilsson et al.
- [Implementation of Malaysian National Axle Load Policies through Weight Restriction Orders 1989, 2003 & 2017](#)
MN Shahrudin, CC Lim, SK Ng et al.
- [Triangular color codes on trivalent graphs with flag qubits](#)
Christopher Chamberland, Aleksander Kubica, Theodore J Yoder et al.



ECS The Electrochemical Society
Advancing solid state & electrochemical science & technology

243rd Meeting with SOFC-XVIII

Boston, MA • May 28 – June 2, 2023

Accelerate scientific discovery!

Learn More & Register

The government policy on the covid-19 handling viewed from environmental and biodiversity perspectives

Suwari Akhmaddhian¹, Toto Supartono², Erga Yuhandra³, Haris Budiman⁴,
Diding Rahmat⁵

Universitas Kuningan, Indonesia

*suwari_akhmad@uniku.ac.id

Abstract. This legal analysis aims to analyze the government policy on the Covid-19 handling viewed from the environmental and biodiversity perspectives. This study applied a normative juridical research method. The results showed that Large-Scale Social Restriction policy makes the environment and biodiversity better as the industrial and economic activities stop temporarily and the production activities stop exploiting the environment. Finally, it can be concluded that the government policy in the form of Large-Scale Social Restriction has positive impacts on the environment and biodiversity in several places, especially in urban areas, so that the policy can be applied in the future.

1. Introduction

On March 11, 2020, the World Health Organization (WHO) declared that the Corona Virus Disease 2019 (COVID-19) is a Global Pandemic and constitutes a Public Health Emergency of International Concern (PHEIC) on the basis of the massive development of the positive cases of COVID-19 reported by several countries [1]. The first case of Covid-19 in Indonesia was identified on March 2, 2020. For that reason, the government issued Presidential Decree No. 11 of 2020 on the Determination of a Public Health Emergency due to the Corona Virus Disease 2019 (COVID-19) on March 31, 2020 and Presidential Decree No. 12 of 2020 on the Determination of Non-Natural Disaster of the Corona Virus Disease 2019 (COVID-19) Spread as a National Disaster on April 13, 2020 (Disantara, 2020).

In preventing the spread of the Covid-19 in Indonesia, the Government of the Republic of Indonesia can refer to Law No. 6 of 2018 on Health Quarantine. Based on Article 49 of this Law, quarantine can be in the form of House Quarantine, Regional Quarantine, Hospital Quarantine, or Large-Scale Social Restriction carried out by Health Quarantine Officials. However, in this case, the Indonesian Government applied Large-Scale Social Restriction, instead of regional quarantine, as stipulated in Government Regulation (PP) No. 21 of 2020 on Large-Scale Social Restriction.

According to Article 1 of Government Regulation No. 21 of 2020, Large-Scale Social Restriction is a restriction on certain activities in an area suspected of being infected with the Covid-19 to prevent the spread of the virus. The policy taken by the Indonesian Government is different from other countries, such as America, Malaysia, France and India, in which they enforce Regional Quarantine. The government does not apply a regional quarantine due to economic consideration. Here, the



government prefers to limit the operational activities of economic facilities, such as markets, shopping centers, and offices. Meanwhile, as a response to the Large-Scale Social Restriction policy, school activities ranging from kindergarten to tertiary level are shifted to online learning. Up to November 9th, 2020, the number of people confirmed to be positive of the Covid-19 in Indonesia was 440,569 people. The data was collected from the official government website (www.covid19.go.id).

Table 1. The number of people confirmed to be positive of the Covid-19 in Indonesia

No.	Status	Number	Percentage	Note
1.	Treatment	53.614	12.20 %	
2.	Recovered	372.266	84.50 %	
3.	Death	14.689	3.30 %	
	Total	440.569	100 %	

By enforcing Large-Scale Social Restriction, instead of regional quarantine, the government does not seem to be serious in handling Covid-19 and also seems to sacrifice the lives of the people for the purpose of economic activity. As a result, the number of deaths due to the Covid-19 is more than 14.000 people.

2. Methodology

This study applied This study applied a normative juridical research method which is a method based on secondary data in the form of legislations, theories, scientific articles, newspaper articles, and other secondary sources. The legislations used in this study include Law No. 6 of 2018 on Health Quarantine, Government Regulation (PP) No. 21 of 2020 on Large-Scale Social Restriction, Presidential Decree No. 11 of 2020 on the Determination of a Public Health Emergency due to the Corona Virus Disease 2019 (COVID-19), and Presidential Decree No. 12 of 2020 on the Determination of Non-Natural Disaster of the Corona Virus Disease 2019 (COVID-19) Spread as a National Disaster.

3. Result and Discussion

Public policy is a series of actions/activities proposed by a person, group or government in a certain environment to overcome various obstacles/difficulties in order to achieve the expected goals (Agustino 2008: 7). Meanwhile, according to Wiliam N. Dunn, public policy is a complex dependence pattern of mutually dependent collective choices, including decisions not to act, developed by government agencies or offices (Dunn 2003: 132). Here, public policy involves everything stated and done, or not done, by the government. Besides, public policy can also be defined as policy developed by government agencies and offices (Andreson 1979: 3).

Environmental problems can be viewed from various aspects, including medical, technological planning, environmental engineering, economic, and legal aspects. As stated by Siti Sundari Rangkuti, the legal aspects of environmental management and natural resource conservation in Indonesia need to be studied intensively as environmental management is inseparable from legal aspect (Khotijah 2010: 356). Yet, this does not mean that legal experts can deal with environmental problems alone without any intervention from other disciplines related to environmental field (Khotijah 2010: 371). Natural resource is a sensitive issue that can cause conflicts among citizens or with the state (Tignino 2011: 193).

In addition to paying attention to its legality, natural resource management also need to pay attention to the environmental aspects being studied so that the impacts on other living things can be identified (Silalahi 2002: 29). For instance, water resource conservation requires a comprehensive policy so that its quantity and quality meets human needs. The theory used in this study is the Government Authority Theory. Based on this theory, the authority coming from the legislation is obtained through three ways, namely [2]:

- a. Attribution – an authority obtained by a government organ directly from the legislation.

- b. Delegation – a delegation of authority from one government organ to another government organ.
- c. Mandate – occurs when a government organ allows another government organ to carry out his authority on his behalf.

Government policies must be based on the principles of good governance. In this case, good governance must be transparent, accountable, fair, and responsible [3]. In its implementation, the government must pay attention to the principles of good governance consisting of the principle of legal certainty, the principle of public order, the principle of public interest, the principle of openness, the principle of proportionality, the principle of professionalism, and the principle of accountability. [4]

The Impacts of the Government Policy in Handling Covid-19 on the Environment and Biodiversity. The outbreak of this pandemic could be just one way for the earth to call for human attention for a moment. As stated by Niel Makinuddin, an activist of Yayasan Konservasi Alam Nusantara, earth seems to be sending a message to human, “please stop exploiting me for a moment. Give me a moment to breathe and recover from various damages that you have done.” In the same vein, Barnabas Ohoiwutun (2020) argues that if the Covid-19 is a sign given by the earth due to the excessive human interference, then washing hands, wearing masks, and applying social distancing is not enough to overcome it [5].

As previously mentioned, the government applies Large-Scale Social Restriction policy in handling Covid-19 in Indonesia. Referring to this policy, the movement of people and goods for a certain province or district/city (which has a significant number of cases) is limited. Even though restrictions are enforced in certain areas, the level of human activities varies in each area so that its impact on the environment or biodiversity will also be varied.

For example, when the authors interviewed several communities/farmers in several villages in Kuningan District, they said that their daily activities of farming run as usual despite the outbreak of the Covid-19. However, if you look at printed or electronic media, human activities in several big cities, such as Jakarta, have changed significantly with the enforcement of Large-Scale Social Restriction (PSBB). Therefore, the impact of the government policy in handling Covid-19 on the environment can only be seen in big cities or certain destination areas (such as tourist attractions), not in rural areas.

Referring to various sources, the government policy in handling Covid-19 has both positive and negative impacts on the environment and biodiversity, namely [6]:

- a. The decrease of NO₂ concentration – the suspension of most industrial activities has decreased the level of air pollution. Besides, satellite imagery found a significant decrease in global concentrations of nitrogen dioxide (NO₂): a gas emitted from car engines and manufacturing plants which is responsible for a poor air quality in various major cities, such as in Rome, Madrid and Paris (Zambrano-Monserrate, et al. 2020). Zambrano-Monserrate et al. also add that NO₂ concentration during quarantine in Wuhan and China were decreased by 22.8 µg/m³ and 12.9 µg/m³, respectively; likewise, in other 365 cities.
- b. The decrease of CO₂ emission – Similar to NO₂, carbon dioxide (CO₂) emissions have also been decreased during the Covid-19 pandemic. When economic activity stops, CO₂ emissions decrease. For the last time, this condition happened during the 2008-2009 financial crisis. According to Carbon Brief, in China, carbon dioxide emissions decreased by 25% when lockdown was implemented. However, this is only happened temporary.
- c. A new world for wildlife – some animals, especially those sensitive to humans, tend to have sprung up. The reduced number of vehicles passing on the road gives a space for small creatures, like hedgehogs, to emerge from their hibernation.
- d. The decrease of wildlife trade – conservationists hope that the Covid-19 pandemic will help decrease the global wildlife trade which is responsible for the extinction of a number of species. The virus is predicted to be originated in Wuhan animal market which sells live animals and is a center for both legal and illegal trade of wildlife.
- e. The increased level of water quality – shortly after the enforcement of lockdown in Italy, a photo

of a clear canal in Venice was spread around the world. Besides, as the cruise ships resting for a while, the oceans experience a reduced noise pollution so that it can reduce the stress level of marine creatures, such as whales. In other parts of the world, such as Acapulco (Mexico), Barcelona (Spain), and Salinas (Ecuador), coastal waters become cleaner (Zambrano-Monserrate et al. 2020).

f. The increase of plastic waste – one of the worst impacts of this pandemic on the environment is the increasing use of single-use plastics from medical equipment, such as gloves, to other plastic packaging. During this pandemic, people are more likely to choose packaged foods, cafes no longer use reusable cups in an effort to stop the spread of the virus, etc. Quarantine has also triggered consumers to shop online so that household organic waste and plastic waste have increased [7]. Besides, quarantine has caused waste recycling activities in several countries, such as the United States, to stop. This condition will certainly increase the pile of waste.

g. The issue of the climate crisis is neglected temporarily – the Covid-19 pandemic has marginalized the issue of the climate crisis. However, experts warn that the important climate decisions should not be ignored, even if the UN climate conference is postponed until 2021. Although emissions have decreased during this pandemic, unfortunately we are not seeing a broad and long-term climate change.

In many protected areas in various parts of the world, the outbreak of the Covid-19 has prompted conservation area managers to close their conservation areas. This condition has certainly been beneficial for wildlife sensitive to human as their stress levels will decrease [8]. The description on the impacts of the Covid-19 pandemic and its policies took many cases from several countries. However, if it is drawn to a smaller scope, namely in Indonesia, the same conditions are likely to occur, such as a decrease of air pollution in big cities, an increase of water quality in several coastal ecosystems, and a decrease of stress level of wildlife. However, in some places, the government policy in handling the Covid-19 may not have a significant impact on the environment and biodiversity, such as in rural areas.

4. Conclusion

The earth's condition is improving due to the lower levels of global pollution and emission. Yet, it is not because of certain policies, but it is because of the cessation of industrial activities during the Covid-19 outbreak. The government policy in the form of Large-Scale Social Restriction has positive impacts on the environment and biodiversity in several places, especially in urban areas, so that the policy can be applied in the future. The Large-Scale Social Restriction can be implemented regularly so that the environment becomes good and healthy in accordance with the mandate of the constitution.

References

- [1] W. E. Parmet and M. S. Sinha, "Covid-19 : The Law and Limits of Quarantine," *New England Journal of Medicine*, pp. 1-14, 2020.
- [2] A. Marawi, "Kewenangan Pejabat Kepala Daerah di Bidang Kepegawaian dalam Menyelenggarakan Pemerintahan Daerah (Studi pada Pemerintahan Kota Mataram)," *IUS : Kajian Hukum dan Keadilan*, Vol.4, 3, Desember 2016, pp. 541-558, 2016.
- [3] A. Iswahyudi and I. Triyuwono, "Hubungan Pemahaman Akuntabilitas, Tranparansi, Partisipasi, Value for Money dan Good Governance," *Jurnal Ilmiah Akuntansi*, Vol.1, No.1, pp. 151-166, 2016.
- [4] S. Akhmaddhian, "Asas-Asas dalam Penyelenggaraan Pemerintahan yang Baik untuk Mewujudkan Good Governance," *Logika : Journal of Multidisciplinary Studies*, Vol.9, No.1, pp. 30-38, 2018.
- [5] L. Utomo, Kearifan Loka IMasyarakat Hukum Adat Kendeng Dalam Menjaga Keseimbangan Lingkungan Hidup Di Tengah Pandemi Covid 19. Buku Bunga Rampai Asosiasi Pengajar Hukum Adat (Apha) Indonesia, Jakarta: Lembaga Studi Hukum Indonesia, 2020.
- [6] www.dw.com, "Dampak Virus Corona Terhadap Lingkungan," Jakarta, 2020.

- [7] R. M. S.-A. L. Zambrano-Monserrate MA, "Indirect effects of Covid-19 on the environment," *Sicence of the Total Environment*, pp. Zambrano-Monserrate MA, Ruano MA, Sanchez-Alcalde L. 2020. Indirect effects of Covid-19 on the environment. 728, 2020.
- [8] P. R. D. V. M. B. G. V. B. A. K. L. R. T. L. R. P. R. C. G. P. A. J. D. R. R. Corlett RT, "Impacts of the coronavirus pandemic on biodiversity conservation," *Biological Conservation*, p. 246, 2020.
- [9] R. Candrakirana, "Penegakan Hukum Lingkungan dalam Bidang Pengelolaan Sampah sebagai Perwujudan Prinsip Good Environmental Governance di Kota Surakarta," *Yustisia*, vol. 4, no. 3, pp. 581-601, 2015.
- [10] O. Iskandar, "Pengelolaan Sampah Berwawasan Lingkungan di Kelurahan Harapan Baru Kecamatan Bekasi Utara Kota Bekasi," *Jurnal Abdimas*, vol. Juni, no. 2, pp. 110-121, 2019.
- [11] M. A. Mujiono, "Iptek Bagi Masyarakat dalam Mengembangkan Kawasan Sadar Lingkungan di Desa Sindangmukti yang Mengalami Kendala Sarana Pengolahan Sampah," *Jurnal Pengabdian Kepada Masyarakat (Abdimas)*, vol. 1, no. 1, pp. 9-16, 2018.
- [12] S. Soekanto, *Faktor-Faktor yang Mempengaruhi Penegakan Hukum*, Jakarta: Rajawali Pers, 2014.
- [13] S. Akhmaddhian, "Penegakan Hukum Lingkungan dan Pengaruhnya Terhadap Pertumbuhan Ekonomi di Indonesia," *Unifikasi : Jurnal Ilmu Hukum*, vol. 3, no. 1, pp. 1-35, 2016.
- [14] A. P. Satria, "Environmental Quality Protection in the Period of Industrialization to Realize Environmental Based Industry," *Unifikasi : Jurnal Ilmu Hukum*, vol. 6, no. (2), p. 156 – 163, 2019.
- [15] Sarwono, Interviewee, *Penanganan Sampah di Kabupaten Ciamis*. [Interview]. Monday July 2020.
- [16] E. Agustina, "The Role of Community Empowerment Carried out by Village Government in the Regional Autonomy Era," *Unifikasi : Jurnal Ilmu Hukum*, vol. 6, no. (1), pp. 34-39, 2019.
- [17] Junaedi, "The The Axiology of Pancasila in the Reconstruction of Legal Culture in Indonesia," *Unifikasi : Jurnal Ilmu Hukum*, vol. 6, no. (1), pp. 7-13, 2019.
- [18] Hartiwingsih, "The public participation in water conservation to embody food security in Kuningan, Indonesia," *Int. J. of Civ. Engineering and Tech*, vol. 9, no. (4), pp. 254-264, 2018.
- [19] BPS, Kabupaten Ciamis, Ciamis: BPS Ciamis, 2019.
- [20] S. Akhmaddhian, "The government policy on the conservation of natural resources and ecosystems in Kuningan, Indonesia," in *IOP Conf. Ser.: Earth Environ. Sci*, Bandung, 2019.
- [21] S. Akhmaddhian, "Regional Government Policy in Environmental-Based Waste Management," in *Advances in Economics, Business and Management Research*, Semarang, 2020.
- [22] E. K. Purwendah, "Konsep Keadilan Ekologi Dan Keadilan Sosial Dalam Sistem Hukum Indonesia Antara Idealisme Dan Realitas," *Jurnal Komunikasi Hukum (JKH) Universitas Pendidikan Ganesha*, vol. 5, no. 2, pp. 139-151., 2019.
- [23] L. Puspita, "Law Enforcement Model in Community Based Waste Monitoring and Management as a Realization of Good Environmental Governance Principle in Wast Sumatra, Indonesia," *Unifikasi : Jurnal Ilmu Hukum*, vol. 6, no. (1), pp. 1- 6, 2019.
- [24] S. Mulyani, "sri-mulyani-corona-beri-3-dampak-besar-ke-ekonomi-indonesia," 2020 June 2020. [Online]. Available: <https://www.liputan6.com/bisnis/read/4292763/sri-mulyani-corona-beri-3-dampak-besar-ke-ekonomi-indonesia>. [Accessed 30 June 2020].
- [25] F. P. Disantara, "The Validity of Rector's Circular Letter on the Covid-19 Pandemic," *Unifikasi : Jurnal Ilmu Hukum*, pp. 126-136, 2020.