

Post Pandemic International and Indonesian Law Analysis on Climate Change Impact to Health Adaptation Policy

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Abstract

The impact on climate change to health is significantly shown through triggering vectors for the emerging diseases and zoonoses which are potentially becoming pandemic, thus limiting the fulfilment of the right to health. Therefore, the global community proliferates international legal instruments to ensure that states including Indonesia shall create climate change and health adaptation strategies, especially during the post-pandemic phase. This research attempts to address two questions; How does the international law regulate climate change and health? How does Indonesia comply with international law through climate change and health adaptation policy? This research utilises normative legal analysis conducted through reviewing international and national legal instruments concerning climate change and health through a statutory approach. This research shows that international legal instruments have mandated countries to urgently strategize climate change and health policy upon the rationale of scientific evidence proving the impact on climate change to health, and Indonesia have complied to such international law mandate through generating policies focusing on climate change and health adaptation which have significant contribution on post-pandemic era.

Keywords: Climate Change, Health, Adaptation, Pandemic, Policy

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Introduction

Since certain decades, it has been scientifically proven that climate change has likely contributed to levels of ill health through food and water-borne diseases, and vector-borne diseases with medium confidence (IPCC, 2014). However, human influence plays great role in amplifying the impact of climate change (IPCC, 2021). In return to the climate change impact made by human which links to triggering vector borne diseases, it may cause animals becoming an infectious agent living reservoirs that poses risk to public health, thus affecting human (World Health Organization, 2005). Therefore, a climate change and health adaptation strategy in international and national scale is highly necessary in ensuring human health and wellbeing in a climate resilient community (IPCC,2021). Upon the implementation of such strategy, the laws and policy making took a pivotal role in shaping climate change impact on health adaptation strategy in respective countries (Maskun, et al., 2021).

During 2020 till current, the world has to face an unprecedented challenge by the rise of COVID-19 as a vector-borne diseases, which then declared as an emerging zoonoses (Carlson, 2022). Nevertheless, it shall be acknowledged that this is not the first time a zoonoses emerged due to climatic conditions. Previously in 2017, HFRS diseases derived from Hantavirus carried by rodents have caused 200.000 hospitalisation cases (Kilit, et al., 2017). While the COVID-19 infects high number of humans and striking mortality rate, the global community through the World Health Organization (WHO) by forming COVID-19 Emergency Committee which urgently mandating states by its periodic recommendations applicable to all WHO member countries to identify, conduct research on growing cases, and complying to International Health Regulation (IHR) (World Health Organization, 2020). It can be observed that the climate change impact on health do affected citizens' fulfilment of right to health, thus limiting other rights (including, but not limited to, right to move) as a prolonging result of this pandemic issue.

While strategizing for COVID-19 prevention and treatment in entering the post-pandemic phase, the international community also shall strategize to mitigate future pandemic impacting health from climate change implications as one of its root causes (Filho, et al., 2022). This brings the urge of climate adaptation and mitigation measures as mandated by the Glasgow Climate Pact, ranging from local, national, and regional policy (UNFCCC, 2021). In responding to the international mandate during the pandemic, Indonesia attempted to comply through movement restriction such as social distancing measures, vaccination policy, identification and quarantining process, and testing procedures (Roziqin, et al., 2021). However, the post-pandemic phase will be a challenge for countries including Indonesia to proliferate and enacting climate change and health adaptation and mitigation strategy during recovery stage that will be further discussed in the result section.

The purpose of the study is to normatively analyse the international legal instruments in regulating climate change and health, and how Indonesia will comply with international law through its national regulation concerning climate change and health adaptation during the post pandemic era. In order to achieve the purpose, this research attempts to address two questions; How does the international law regulate climate change and health? How does Indonesia comply with international law through climate change and health adaptation policy? In analyzing the legal instrument, this research follows the objective on measuring the compliance of Indonesia with international law concerning climate change and health. The result of this study will reveal the result of the research question, which reflects implication and future

direction of this study to disseminate international legal instruments regulating climate change and health as a guidance for states to comply.

Literature Review

Normative Review on International Legal Instruments Regulating Climate Change and Health

As it has been identified that the variable of this research consists of: 1) International law, and; Indonesian law, which both are analyzed in the framework of climate change and health. Therefore, the international legal instrument needs to be analyzed as a first step in elaborating the second variable. Environment in international law is protected through the principle of customary international law which is the no harm rule (UNEP, 2022). Under this principle all states must prevent, control, and transboundary impact of their environment. This principle is also supported through the Article 8 of Rio Declaration, that States should decrease and eradicate unsustainable production and consumption. By the recognition of this principle, a state has an obligation to manage their environment which also has connectivity with human health (WHO, 2022).

The relation of environment and human health is also provided under Principle 14 of the Rio Declaration, that States should protect the environment through prevention, which may cause the environment degradation and may be harmful to human health. In order to succeed the obligation of a State, The Stockholm Convention on Persistent Organic Pollutants also regulated that all of the parties should support the research, development, monitoring, and the cooperation, including the effects on human health and environment within their capabilities (United Nations, 2001). Through this Convention, there is a systematic procedure of a State especially in the term to reduce the injury of environment, climate change. Climate change and weather extremes have impact on humans, which will continue to increase with every rise of the temperature (UNFCCC, 2021). In this era, the States are in one commitment which is to prevent climate change through Nationally Determined Contribution.

Nationally Determined Contribution (NDC) is a strategy to reduce emissions and prepare for climate change, which become a government obligation under the Paris Agreement (United Nations, 2016). Pursuant to the Agreement the parties must have and establish the target of the reduction of emission and would be reviewed in every five years. This Agreement shows that the States need adaptation action of climate change and cooperation from every State. It proved that under the Agreement, the developed countries must help the developing country in the financial resources to support the implementation of renewable energy, which to preventing the climate change. To support the Agreement, The Glasgow Climate Pact also emphasizes the urgency of the adaptation action of States, which through the finance, capacity building, and technology transfer in order to increase the adaptive capacity, strengthen resilience, and reduce the vulnerability to climate change (UNFCCC, 2021).

As a developing country which need support from developed country especially to achieve target of preventing climate change, the Convention also regulate regarding the developing country and the economic social development's primary priority to eradicate poverty since the extreme weather may cause drought, but also give the consideration for the protection of human health and the environment (United Nations, 2001). The target which is to eradicate the poverty is in line with the Agreement, which through the global average temperature will make a contribution to the food production (UNEP, 2016). The connectivity between the impact of climate change and human health makes climate change as one of the most important global issues, since it also has correlation with food production as the basic needs of humans.

Normative Review on Indonesian Regulation on Climate Change and Health

After analyzing the international law in the framework of climate change and health, it is necessary in elaborating the Indonesian law in the aforesaid framework as the second variable in this research. By acknowledging the constitutional right of citizens to a good and healthy environment, the Indonesian government has the responsibility to fulfil such rights (Nasution, 2019). The Constitution of Indonesia as a 'green constitution' shall be implemented in a good governance principle, by enacting legislation, licence, permits, and other regulatory instruments with a thorough sustainable development consideration (Nwankoala, 2015). Through interpreting the mandated constitutional right, it is a paramount important state to recognize that the environment has an integral part to health, in which the climate issue is a part of the environment. Therefore, the Indonesian government has proliferated two major instruments in addressing environmental issues and fulfilling the constitutional right, including the Law Number 32 Year 2009 concerning Environmental Protection and Management (Law 32/2009), and the Government Regulation No. 66 Year 2015 concerning Health Environment (GR 66/2015).

Under Law 32/2009, each project and/or activity which has the potential threat to environment, ecosystem and life, and/or health and safety of humans must formulate its environmental risk analysis (Republic of Indonesia, 2009). After the risk analysis has been reported, such analysis must be communicated in exchanging information and opinion between individuals, groups, and institutions that may be posed to the risks from certain projects. Nevertheless, it shall be recalled that the constitutional right does not only require environmental ministries' role. A cooperative action with the ministry of health to regulate and formulate policy concerning environment and health shall be undergone between certain entities. In response to that, the ministry of health passed several regulations:

- a. The Ministry of Health Regulation No. 1018/MENKES/PER/V/2011 Concerning Health Sector Adaptation Strategy Towards Climate Change Impact (MoH Regulation 1018) which considers that the adverse impact to health is a consequence of climate change, therefore a responsive system, cooperative system with related stakeholders, and conducting disease occurrence analysis with a climate parameter along by strategizing adaptation in every government level;
- b. The Ministry of Health Decision No. HK.01.07/MENKES/423/2017 concerning Technical Team Towards Adaptation to Climate Change in Health Sector (MoH Decision 0107) which established under the National Action Plan on Climate Change Adaptation (NAP CCA), in which the technical team shall provide direction to government on formulating advises and considerations concerning climate change adaptation in health sector;
- c. The GR 66/2015 which gave a mandate to every governmental level to enact policy on climate change and health mitigation, adaptation and coordination with each stakeholder;
- d. Indonesia Climate Change Sectoral Roadmap (ICCSR) in the Health Sector, formulated by the Government of Indonesia. This roadmap aims to emphasise the problem, vulnerability of the health sector, risks of climate change to health, and direction on climate change adaptation integration in national planning for the health sector.

All in all, the set of regulations are formulated in order to ensure Indonesia's commitment to transform its development pathway to low carbon and climate resilience on a phase-approach basis, despite the current COVID-19 pandemic and transitioning to post-pandemic phase along with economic and social recovery (Republic of Indonesia, 2022).

Research Method

This research utilized normative legal research which applies statutory and case study approaches. The data used for statutory and case study approach are primary legal materials obtained from relevant international and national regulations, the secondary materials for both approach is obtained from various related literatures, emerging cases relating to climate change and health, and scientific reports.

In synthesizing the primary and secondary datas, a descriptive analysis is undertaken to normatively analyse the international legal instruments in regulating climate change and health, and how Indonesia will comply with international law through its national regulation concerning climate change and health adaptation during the post pandemic era. The result of the descriptive will reveals the result of the research question, which reflects implication and future direction of this study to disseminate international legal instruments regulating climate change and health as a guidance for states to comply, including Indonesia as a part of this research variable.

Findings & Discussion

COVID-19 issue in international legal instrument regulating climate change and health

During the pandemic, there is government policy that applies towards their own country, which is lockdown. This policy necessitated the civilians to stay at home in order to suppress the spread of the virus. Concomitantly, the air pollution and carbon emission decreased just in a few weeks (WHO, 2020). But, after lockdown the mobilisation of air pollution and carbon emission increased which spurred climate change. The use of any renewable technology still needs to be improved since this situation still threatens the health sector, which may invent new diseases through environmental damages, such as through zoonotic diseases.

According to UNEP one of the zoonotic diseases is Coronavirus, which is transmitted from animals to humans and will threaten human health (UNEP, 2020). One of the causes of zoonoses is environmental changes, when weather and humidity change due to greenhouse gas emissions, which allows ecosystems to have balanced animal habitats that will have a direct impact on new emerging diseases. This situation will endanger human's life and will cause new diseases in the future. This fact shows that there is a contribution from humans, which through not preventing and protecting the environment.

As a State, the policy to protect the environment must be upheld since there is an obligation under principle under customary international law, which is to protect the environment due to the impact will directly cause climate change (Apriandi, 2022). The binding power of this principle is legally binding, since protecting the environment is recognized under international law (Axelsson, et al. 2021). Through this, international law prohibits any act that may cause a dangerous thing and there is a responsibility of a State to be bound with all of the obligations of the State.

Implementational issue in Indonesian Regulation on Climate Change and Health

Upon the above normative analysis on the sets of regulations, it is pivotal to understand and observe the applicability and implementation of such legal instruments. Several region have implemented the mandate through formulating regional government in forming a regional task force such as the South East Sulawesi Regional Regulation No. 11 Year 2019 concerning Climate Change Adaptation (RR 11/2019) mandated to formulate regional action plan on

adaptation as a part of annual working programme of government (South East Sulawesi Region, 2019). Other region such as Pasuruan Regency, Palembang City, Jakarta Special Region, Tanjungpinang city, have provided climate change adaptation regulation.

The issue upon implementation is that implementation in the regional field are not yet prevalent and informed publicly, in which there is only one climate adaptation with health strategy and work safety project found in West Sulawesi in 2021 (Health Department of West Kalimantan Province, 2021). In national scale, the technical team are mandated to lead the Asia Pacific Regional Forum on Health and Environment (APRFHE) which become a collaboration forum between stakeholders among Asia Pacific region (Wisnubro, 2019). Nevertheless, the critical point needs to be highlighted is that the implementation in regional scale are not yet equally distributed, hence the national technical team has an important role in mitigating this issue.

Concerning the pandemic issue, the role of national technical team force is highly needed to identify whether this disease also become the impact of climate change by cooperating with national government research agency and proposing policy recommendation to government in mitigating and adapting to climate change in health sector as an effort to prepare for the next wave of pandemic. Such roles have been governed under MoH Decision 0107, therefore the technical team has its legal basis on conducting strategies in contribution to the current pandemic (Ministry of Health of Indonesia, 2017). In the post pandemic era, implementing the aforementioned role into a field action, and solving the remaining challenge on regional implementation are two important tasks for the ministerial body and the technical team.

Conclusion

International legal instruments have mandated countries to urgently strategize climate change and health policy upon the rationale of scientific evidence proving the impact on climate change to health. Furthermore, Indonesia has complied to such international law mandates through generating policies focusing on climate change and health adaptation which have significant contributions in the post-pandemic era.

Whilst the fact that Indonesia have strategized climate change and health adaptation, implementational issues in pre, during, and also post pandemic such as unequal and non-inclusive distribution in regional implementation; and implementation of technical team role in contributing to identify the link between pandemic to climate change and proliferating strategy still remains. Therefore, certain existing loopholes needs to become an attention and further addressed by the ministerial body and the technical team.

References

- Apriandi, M. et al (2022) Exercising no-harm rule: Claims for damage and loss due to climate change effects. *Sriwijaya Law Review* 6(1) pp. 174-188
<https://doi.org/10.28946/slrev.Vol6.Iss1.1646.pp174-188>
- Axelsson, E. et al (2021) *Eco-Intervention, the Protection of Sovereignty and the Duty of the Sovereign State to Protect the Environment: An Analysis of Eco-Intervention in Connection with the Principle of Sovereignty and Other Norms of International Law* (thesis) Orebro Universitet [Online] Available: <https://www.diva-portal.org/smash/get/diva2:1598173/FULLTEXT01.pdf>

- Carlson, C.J. (2022) Climate Change Increases Cross-Species Viral Transmission Risk. *Nature* (607) pp. 555-562 <https://doi.org/10.1038/s41586-022-04788-w>
- Filho, W.L., et al (2022) Climate Change and Zoonoses: A review of concepts, definitions, and bibliometrics. *Int J Environ Res Public Health* 19(2) p.893 <https://doi.org/10.3390/ijerph19020893>
- Health Department of West Kalimantan Province (2021) Worker Adaptation with Health Strategy and Work Safety Towards Climate Change Impact [online] available at <https://dinkes.kalbarprov.go.id/adaptasi-pekerja-dengan-strategi-kesehatan-dan-keselamatan-kerja-k3-terhadap-dampak-perubahan-iklim/>
- IPCC. (2014) Assessment Report 5: Working Group II. p. 713 [Online] Available: <https://www.ipcc.ch/report/ar5/wg2/> (Accessed 22 October 2022)
- IPCC. (2021) Assessment Report 6: Working Group I. p. 11 [Online] Available: <https://www.ipcc.ch/report/ar6/wg1/> (Accessed 22 October 2022)
- IPCC. (2021) Assessment Report 6: Working Group II. p. 30 [Online] Available: <https://www.ipcc.ch/report/ar6/wg1/> (Accessed 22 October 2022)
- Kilit, T.P., Kilit, C., Erarslan, C. (2017). A rare cause of acute Pancreatitis: Hantavirus infection. *Acta Gastroenterol Belg* 80(1) pp. 59-61 29364099
- Maskun, et al., (2021) Threats to the sustainability of biodiversity by the utilization of forest areas for national strategic project: A normative review. *IOP Conf. Series EES*. 886(1):012071 <https://doi.org/10.1088/1755-1315/886/1/012071>
- Ministry of Health of Indonesia (2017) Decision No. HK.01.07/MENKES/423/2017 concerning Technical Team Towards Adaptation to Climate Change in Health Sector
- Nasution, L. (2019). Implementasi Green Constitution Demi Mewujudkan Kehidupan Sehat dan Sejahtera. *Adalah Buletin Hukum dan Keadilan* 3(1) pp. 13-18 <https://doi.org/10.15408/adalah.v3i1.10929>
- Nwankoala, H. N. (2015). Causes of Climate and Environmental Changes: The Need for Environmental-Friendly Education Policy in Nigeria. *Journal of Education and Practice* 6(30) pp.224-234 <https://files.eric.ed.gov/fulltext/EJ1081366.pdf>
- Republic of Indonesia, (2009) Law No. 32 Year 2009 Concerning Environmental Protection and Management. Article 47 (1)
- Republic of Indonesia, (2022) Enhanced Nationally Determined Contribution.
- Roziqin, A., et al (2021) An analysis of Indonesian government policies against COVID-19. *Public and Administration Policy* 24(1) pp. 92-107 <https://doi.org/10.1108/PAP-08-2020-0039>
- South East Sulawesi Regional Regulation No. 11 Year 2019 concerning Climate Change Adaptation. Article 4
- UNEP (2020). Science Points to Causes of COVID-19. [online] available at <https://www.unep.org/news-and-stories/story/science-points-causes-covid-19> (Accessed 27 October 2022)[1] Republic of Indonesia, (1945). Constitution of the Republic of Indonesia. Article 28H
- UNEP. No Harm Rule. [online] available at <https://globalpact.informea.org/glossary/no-harm-rule> (Accessed 27 October 2022)
- United Nation Convention 2001 Stockholm Convention on Persistent Organic Pollutants, Article 11 (1)(d)
- United Nations Agreement (2016) The Paris Agreement, Article 2
- United Nations Agreement (2016) The Paris Agreement, Article 4 (9)
- United Nations Agreement (2016) The Paris Agreement, Article 9 (5)
- United Nations Climate Change Conference (2021). Glasgow Climate Pact. paragraph 5 p. 2
- United Nations Climate Change Conference (2021). Glasgow Climate Pact. Paragraph 22 p. 3

- United Nations Convention 2001 Stockholm Convention on Persistent Organic Pollutants, Article 12 (4)
- United Nations Framework Convention on Climate Change 2021 on The Glasgow Climate Pact.
- United Nations (2022) All About NDCs [online] available at <https://www.un.org/en/climatechange/all-about-ndcs> (Accessed 27 October 2022)
- WHO (2020) Statement on the second meeting of the International Health Regulations (2005) Emergency Committee Regarding the Outbreak of Novel Coronavirus (2019-nCoV) [online] available at [https://www.who.int/news/item/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news/item/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov))
- WHO (2020). Coronavirus Disease (COVID-19): Climate Change. [online] available at <https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-covid-19-climate-change> (Accessed 27 October 2022)
- WHO (2022) Public Health and Environment. [online] available at <https://www.who.int/data/gho/data/themes/public-health-and-environment> (Accessed 27 October 2022)
- Wisnubro (2019) Indonesia Memimpin Promosi Kebijakan Kesehatan Lingkungan di Asia Pasifik [online] available at <https://infopublik.id/kategori/sorot-sosial-budaya/417461/indonesia-memimpin-promosi-kebijakan-kesehatan-lingkungan-di-asia-pasifik?show=>
- World Health Organization. (2005). International Health Regulations (3rd ed.) article 1