

# The Implementation of Sustainable Development to Achieve Climate Justice: Indonesian Perspective as an Archipelagic State

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**Abstract:** Climate change causes serious impacts to the environment and to human beings. The impacts of climate change cannot be overcome by a single state, but it needs international cooperation. Each state has to act locally to participate in combating climate change in order to achieve climate justice. The research aims to analyze comprehensively the implementation of sustainable development to achieve climate justice Indonesian Perspective as an Archipelagic State. This study is a normative juridical research by applying conceptual and statutory approaches. The result of the research found that the policies strategies and efforts of Indonesian government to participate in achieving climate justice in the global sphere still needs to be improved. However, there are some opportunities and challenges that have to be addressed. Thus, it is necessary to educate and to improve the public awareness to participate in the efforts of implementing sustainable development principle to achieve climate justice.

**Keywords:** Adaptation, climate justice, intergenerational equity, sustainable development, mitigation.

## 1. INTRODUCTION

The aim of the paper is to examine comprehensively the implementation of sustainable development to achieve climate justice from the perspective of Indonesia as an archipelagic state. Indonesia is the world's largest archipelagic state, consisting of more than 17,500 islands with over 81,000 kilometers (km) of coastline, a population of 270.6 million as of 2019 and the largest economy in Southeast Asia (The World Bank Group, 2021). An archipelagic state is home to an extremely varied geography, topography, and climate, ranging from sea and coastal systems to peat swamps and montane forests. Indonesia is highly vulnerable to climate change impacts, including extreme events such as floods and droughts, and long-term changes from sea level rise, shifts in rainfall patterns and increasing temperature.<sup>1</sup> It relates to Sustainable Development Goals (SDGs) 13, namely "Take urgent action to combat climate change and its impacts" (Aubrecht, 2022). Thus, international cooperation to combat climate change is imperative, in order to make the Earth habitable for humankind.

The impacts of climate change affect the climate justice, since the impacts of climate change cause the developing countries and least developed countries more vulnerable compare to developed countries, even for the low-lying and other small island countries are

"particularly vulnerable to the adverse effects of climate change" (Knodel, 2012). Climate justice is the most urgent issue of a generation. Especially for those who have a mission to free Indonesia as a developing state from the threat of climate crisis and ecological crisis based on human rights principles. Thus, it is important to embody climate justice written in the Paris Agreement. Climate change will harm the people of Indonesia, especially coastal communities. According to the Department of Marine Affairs and Fisheries, in just two years (2005-2007), Indonesia has lost 24 small islands: three in Nanggroe Aceh Darussalam (NAD), three in North Sumatra, three in Papua, five in Riau Islands, two in west Java, one in South Sulawesi, and seven in the region of the thousand Islands (Ministry of Environment, 2009).

There is no studies that have been conducted regarding the implementation of sustainable development to achieve climate justice in Indonesia. Most of the studies discuss the relationship of sustainable development to mitigate climate change in Indonesia, such as; First, Study that has been conducted by Agus Cahyono, *et al.*, in 2021 "Climate Change and Sustainable Development Goals Program in Indonesia" (Setiawan S, *et al.*, 2021). This research only focuses on the implementation of the United Nations Environment Program, which formulates at least seven areas for addressing global climate change. Second, research conducted by Imam Basuki, *et al.*, "Reforestation Opportunities in Indonesia: Mitigating Climate Change and Achieving Sustainable Development Goals", in 2022 (Basuki, *et al.*, 2022). This study focuses on reforestation opportunities to support Indonesia's National Determine Contributions (NDCs) in reducing Green House Gases (GHG)

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<sup>1</sup>Ibid, at 12.

emissions by 2030. There is no discussion or study related to the implementation of sustainable development to achieve climate justice in Indonesia. Third, Sigit Setiawan, *et al.* "Green Finance in Indonesia's Low Carbon Sustainable Development" (Setiawan, *et al.*, 2021). This research primarily discusses how Indonesia-as a developing country and one of the world's top 10 GHG contributors has committed and struggled to attain low carbon development goals, which are crucial for its national development sustainability and the world campaign on climate change impact mitigation and adaptation. Thus, in various studies outlined above, there has no study that examine the implementation of Sustainable development to achieve climate justice in Indonesia.

Realizing that climate change causes serious impacts to the archipelagic states, Indonesia has already started to issue policies and regulations to cope up the impacts of climate change. In order to combat and to mitigate climate change, it is important to implement sustainable development principle which was introduced by World Commission on Environment and Development (WCED) in the Year of 1987 (Hush, 2018). According to the WCED Sustainable development is "development to meet the need of present without compromising the ability of the future generation to fulfil their own need".<sup>2</sup> There are three pillars of sustainable development, namely economic development, protection of environment and social development. The three pillars have to be conducted harmoniously. Hence, if the development which become the right of each state has integrated the principle of sustainable development in its development may create climate justice and intergenerational equity (Halvorssen, 2011).

Therefore, the purpose of this paper is to examine the implementation of sustainable development to achieve climate justice in the perspective of Indonesia as an archipelagic state. Furthermore, it also to analyze the challenges and opportunities to find solutions how to address the bad impacts of climate change in Indonesia as an archipelagic state by implementing sustainable development to create climate justice in Indonesia.

## 2. RESEARCH METHOD

This research was a normative juridical research. A normative juridical research is a legal research

conducted by examining library materials or secondary data as the basic material for research by conducting a search on regulations and literature related to the problem under the study. The data is collected through library research. Normative juridical research is conducted by examining and interpreting theoretical matters relating to principles, conceptions, doctrines and legal norms related to climate justice and the principles of sustainable development. The approaches used in this study are conceptual and statutory approaches.

## 3. RESULTS AND DISCUSSION

### 3.1. The Impacts of Climate Change in Indonesia as an Archipelagic State

The report published by the Intergovernmental Panel on Climate Change IPCC on 9 August 2021 revealed that an alarming fact that GHG emissions have caused the earth's average temperature to rise and cause "rising seas, melting ice caps and other effects of a warming climate may (already) be irreversible for centuries" (Wright *et al.*, 2022). This is critical because the inevitability of global warming may trigger catastrophic climate change-related disasters. In Indonesia, climate change-associated disasters have frequently occurred. For instance, prolonged flooding in Kalimantan due to extreme rainfall, high intensity of forest and land fires in Sumatra due to hot weather, and the rise of sea level on the north coast of Java (Ministry of Environment and Forestry, 2023).

In addition to natural disasters, climate change also results in failure of food crops and can create an explosion of disease-carrying vectors such as mosquitoes and flies. In order to curb global GHG emissions, the world acceded to the Paris Agreement in 2015 (Scanlan, 2021). Every single country, including Indonesia, determined its own target for contributing to GHG emission reduction, in which the target was then set forth in their NDC document (Bach, 2016). Notably, the rainfall patterns of Indonesia have changed; and, there has been a decline in annual rainfall, particularly, in the southern regions of Indonesia, whereas, there is an increase in rainfall in the northern regions. For instance, parts of Sumatra and Borneo are becoming 10 to 30% wetter during December-February; whereas, Jakarta is projected to become 5 to 15% drier during June-August (Case, 2023).

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<sup>2</sup>Ibid.

Concerning the effects of climate change on Indonesian fisheries, some models estimate that depending on the emissions scenario, climate change could result in a 13% to 29% decline in overall fisheries harvest potential in Indonesian waters by 2050.<sup>3</sup> However, it is reasonable that fishermen in Indonesia find difficulties to catch the fish. Furthermore, climate change also affects the distribution and abundance of fish in the sea, while the increase of fuel oil prices makes fisherman more reluctant to go sailing for fish. These factors cause injustice to the fishermen. It is a matter of global justice spreading from the international to the regional and national stakeholders.

### 3.2, The Origin of Climate Justice

The scope of climate justice is broad, it is concerned with underlying issues of marginalization and inequity created and reinforced by climate change. Climate justice is the blueprint for a just and sustainable future for life on Earth. It can be viewed as a lens to examine climate change as a social, ethical, and legal concern, rather than just an environmental one (Aliozi, 2021). This frame of justice has in its core the protection of human rights and of the most vulnerable in a climate changed world. The issues of addressing climate justice demands equitable solutions as well as the respect, preservation, and fulfillment of human rights in the context of climate change mitigation and adaptation, biodiversity conservation, and pollution control efforts (Climate Justice Roundtable, 2022).<sup>4</sup> It can be submitted, that climate change undermines human rights thus creating injustice. However, responses to climate change may also risk further injustice if not considered human rights. As such, although mitigation and adaptation measures are needed to achieve climate justice.

The climate justice is the evolution of environmental justice, which in theory means that all living beings have a natural right to access and obtain the resources needed to have an equal chance of survival and are entitled to exist free from harm (UNDP, 2022). As part of the climate action movement, climate justice advocates are working from the grassroots up to create solutions to our climate and energy problems, with the goal of ensuring the rights of all people and future generations.

It can be stated that climate justice is a concept that addresses the just division, fair sharing, and equitable distribution of the burdens of climate change and its mitigation and responsibilities to deal with climate change (World Dwide Universities Network, 2023). The aim of climate justice is to do everything possible to stop global warming from increasing these inequalities. Climate Justice is a subset of the Environmental Justice movement that intends to highlight the disparate impact of climate change on vulnerable communities as well as promote a fair distribution of resources to address the impacts of climate change (The Office of the High Commissioner for Human Rights, 2015). Climate justice can be understood as a lens for looking at climate change as a social, ethical and legal issue, rather than solely an environmental one. This frame of justice has in its core the protection of human rights and of the most vulnerable in a climate changed world (Giudice, 2023).

### 3.3. The Legal Instrument of Climate Justice in Indonesia

Providing a good environment and sustainably managing natural resources for the nation's welfare is the mandate of the 1945 Constitution. In particular, the mandate is emphasized in the Article 28H of the Constitution that every Indonesian citizen has the right to a decent environment (Scorecard, 2022). Accordingly, article 33 Indonesian Constitution also emphasizes that Indonesia's land and natural resources must be sustainably managed by the government for the prosperity of the people. In practice, this mandate is further regulated by several implementing regulations including the Law on Environmental Protection and Management, the Law on Forestry, and the Law on Conservation of Natural Resources and Ecosystems. The mandate leads Indonesia ratified the Paris Agreement through Law No. 16 of 2016. The heart of the Paris Agreement and the achievement of its long-term goals are contained in a NDC, it is a non-binding national plan highlighting climate change mitigation. In order to meet the commitment, Indonesia has developed a NDC Implementation Strategy and two Road maps on Mitigation and on Adaptation. In 2021 Indonesia updated the NDC, and then submitted the Enhanced NDC in September 2022. Indonesia also designed a Long-Term Strategy for Low Carbon Development and Climate Resilience (LTS-LCCR) 2050 (Ministry of Environment and Forestry).<sup>5</sup>

<sup>3</sup>World Bank Group, op.cit. at 19.

<sup>4</sup>Climate Justice Roundtable: An Online Discussion with Activists and Experts, (February 2022), at 6.

<sup>5</sup>Ministry of Environment and Forestry, op.cit, at 16.

In addition, the LTS-LCCR, also has a function as a tool for strengthening the vision of 'One Hundred Years Indonesia' (Visi Indonesia 2045 towards a developed and prosperous Indonesia "based on its four following pillars: human resource development and science and technology advancement; sustainable economic development; equitable development, and, strengthening national resilience and public sector governance" (UNFCCC, 2023). The Government of Indonesia is committed to reducing the country's GHG emissions. Through Presidential Regulation No. 61 Year 2011, concerning the National Action Plan for Greenhouse Gas Emission Reduction. Indonesia set an emission reduction target of 26%, compared to business-as-usual, with domestic efforts, or up to 41% with international support under the reference emission level, by 2020. In support of these efforts, the Indonesian Government has promulgated relevant legal and policy instruments, including the national action plan on GHG emissions reduction as stipulated in Presidential Regulation (PERPRES) No. 61 Year 2011 and GHG inventory through Presidential Regulation (PERPRES) No. 71 Year 2011 (United Nation Framework Convention on Climate Change, 2015). Land use, land-use change and forestry (LULUCF) and energy measures will play a major role in Indonesia's climate change mitigation strategies to achieve emission reduction target.<sup>6</sup>

Furthermore, Indonesia has passed meaningful legislation on climate change. However key initiatives are often embodied in decrees and regulations passed by individual ministries as opposed to parliamentarians. Nonetheless, at the highest level the government has demonstrated willingness to tackle climate change and the current President has stated his commitment to reducing carbon emissions and to continuing a moratorium on forest clearing (Reuter, 2019). It has long since opened pathways to implement domestic activities. In 2007 the Environment Ministry launched the Action Plan to Respond to Climate Change (RANPI). Indonesia launched its "National Action Plan Addressing Climate Change" when it hosted the 13th Conference of the Parties in Bali in 2007. (Mariah Measey, 2010). Following this, it created the National Council on Climate Change in 2008. The Council, formed of 17 Ministers and chaired by the President, co-ordinates climate change policies and international positions, including the creation of a cap-and-trade mechanism (FAO, 2023).

### 3.4. The Implementation of Sustainable Development in Indonesia

The concept of sustainable development received its first major international recognition in 1972 at the UN Conference on the Human Environment held in Stockholm (Aubrecht, 2022). The term was not referred to explicitly, but nevertheless the international community agreed to the notion of sustainable development. The term sustainable development was popularized in the Brundtland Report, namely Our Common Future (Leal-Arcas, 2017) as the report of the World Commission on Environment and Development, which defines "sustainable development as development which meets the needs of the present without compromising the ability of future generations to meet their own needs". The principle of sustainable development formed the basis of the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992. The summit marked the first international attempt to draw up action plans and strategies for moving towards a more sustainable pattern of development.

Indonesia has already adopted the sustainable Development principle in law number 23 Year 1997 concerning Environmental Protection which was superseded by law number 32 Year 2009 concerning Environmental Protection and Environmental Management as well as adopted by Law of the Republic of Indonesia No. 26 of 2007 concerning Spatial Act. Sustainable development underlines the three fundamental components of sustainable development, the protection of environment, economic development, and social development, which later became known as the triple bottom line (Hush, 2018). The concept of sustainable development was a compromise between growth and conservation. The whole debate around sustainable development made it clear that anthropocentric views were stronger than ecocentric views, but that environmental concerns had at least become part of development discourses. In order to achieve climate justice, it is necessary that sustainable development to be implemented and integrated in various kinds of activities, such as the mining activities, fisheries, forestry as well in tourism and also in trade. For instance, Indonesia's commitment in improving forest governance has also brought about international recognition and rewards through reducing emissions from deforestation and forest degradation (REDD+) result-based payments, especially in maintaining the remaining natural forests (Ministry of Environment and Forestry Republic of

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<sup>6</sup>Ibid.

Indonesia, 2022). REDD+ seeks to reduce GHG emissions caused by deforestation and forest degradation, while also preserving forest carbon stocks, supporting sustainable forest management, and expanding forest carbon stocks. REDD+ is based on three guiding principles: the necessity for excellent forest governance, the respect for indigenous peoples' and members of local communities' rights, and the protection and conservation of biological variety and ecosystem services (Genest, 2022).

This successful endeavor has been supported by a number of regulations, including: (i) Presidential Instruction Number 5 Year 2019 on Termination of New License Issuance on Peatland (Sawit BPDPKS, 2019), (ii) Implementation of Mandatory Certification For Sustainable Forest Management, (iii) Government Regulation Number 46 Year 2016 on Strategic Environmental Assessments (SEAs) through landscape approach aiming at securing food, water, and energy security based on sound ecosystem management, (iv) Government Regulation Number 46 Year 2017 on Environmental Economic Instrument, and (v) Presidential Regulation Number 77 Year 2018 on the establishment of Environmental Fund Management Agency (BPD LH). These regulations provide a good foundation for implementing low carbon development compatible with the Paris Agreement and Sustainable Development Goals (SDGs) 13 target and in accordance with the principle of sustainable development and may create climate justice in Indonesia.

### 3.5. Challenges to Achieve Climate Justice in Indonesia

The challenges for Indonesia are to create appropriate and effective adaptation strategies to address climate change and its impacts by building resilience, resistance, and climate-just societies. Collaborative action and partnership need to take place at all levels; from international, to national, sub-national to local and community-based efforts. Climate change and environmental crisis is a new 'reality' that the world and society have a responsibility to act at this time (UNEP, 2023). Thus, in order to embody climate justice in Indonesia, the integration and implementation of sustainable development in every aspect of activities is imperative.

Another challenge is related to the forest reducing of biodiversity in Indonesia. Studies in different settings show primary forest degradation and conversion (often into palm oil plantations) resulting in declines in species

richness up to or above 50%. Species loss is not restricted to Indonesia's terrestrial space, rare species in the coastal zone, such as mangroves and seagrasses are also under threat, as well as many other marine species. The declining of biodiversity especially the plant affect significantly to the ability of forest to absorb carbon and to release oxygen which may increase the temperature. Humans are responsible for pushing both climate change and the massive decline of biodiversity.

Additionally, there is lack of awareness of business authors to participate in the climate mitigation. There are still a lot of many factories and also project which are not environmentally sound and release huge carbon emission in Indonesia (World Bank, 2023). It is beyond doubt that the biggest polluters can be found in certain profitable industries, while business is still booming in exploiting natural resources, committing green crimes or abusing animal rights. All these issues are relevant in a climate justice discourse; however, to start grasping the complexities involved in the practice of this field of law, one needs to look at the United Nations Framework Convention on Climate Change (UNFCCC), which adopted the principle of common but differentiated responsibility (Jolly & Trivedi, 2021). The question is how that the government of Indonesia to regulate the impacts of climate change which affect the human rights into national regulations that need to be addressed by the regulators.

### 3.6. The Opportunities to Embody Climate Justice in Indonesia

The future of Indonesia concerning the climate justice depends on political will of Indonesia government how to address the issue of climate justice. There are some opportunities that may be visible to embody climate justice based on several aspects, such as the legal policies, regulations, strategies as well as programs. The efforts of Indonesian government to deal with the climate justice can be found in one of the policies of the Indonesian government, such as the central government of Indonesia has been promoting such inclusive policies for addressing climate change. For instance, Indonesian government ratified Paris Agreement by Law Number 16 Year 2016 concerning Ratification of the Paris Agreement on the United Nations Framework Convention on Climate Change. Indonesia has also provided detailed road maps as the basis for the implementation of National Determined Contribution (NDC) and submitted the long-term

strategy on low carbon and climate resilience (LTS-LCCR) to UNFCCC Secretary (UNNFMCC, 2022). The efforts of Indonesian government to achieve climate justice by implementing sustainable development as followed:

First, issuing National Action Plan Addressing Climate Change. The objective of the National Action Plan to address climate change is for it to be used as guidance to various institutions in carrying out a coordinated and integrated effort to tackle climate change. The National Action Plan Addressing Climate Change recognizes that climate change and its impacts constitute complex and dynamic problems. In regards of mitigation efforts, National Action Plan (NAP) provides information regarding institutional arrangements, including the development of relevant regulations in the energy and LULUCF sectors. Such an arrangement includes the establishment of the National Commission on the Clean Development Mechanism based on Ministry of Environment Decree Number 206 Year 2005 as Indonesia's DNA to give approval to CDM project proposals that have met sustainable development criteria (State Ministry of Environment, 2023).

Second, establishing the new institution to mitigate and to adapt climate change, namely: National Council on Climate Change (DNPI) (Climate Change Laws of the World, 2008) Based on Article 2 Presidential Regulation Number. 16 Year 2008 concerning The National Council of Climate Change. The DNPI chaired by the President with the Vice Chairman of the Coordinating Minister for People's Welfare and the Coordinating Minister for Economic Affairs, with members: the Minister of State Secretary, Cabinet Secretariat, Ministry of Environment, Ministry of Finance, Ministry of Home Affairs, Minister of Foreign Affairs, Minister of Energy and Mineral Resources, Ministry of Forestry, Ministry of Agriculture, Ministry of Industry, Minister of Public Works, State Minister for National Development Planning / Chairman of BAPPENAS, Ministry of Maritime Affairs and Fisheries, Ministry of Trade, Minister of State for Research and Technology, Ministry of Communications, Ministry of Health and Head of the Meteorology and Geophysics Agency.

Third, Establishing National Task Force on Climate Change (NTFCC). The REDD+ Task Force was established in September 2010 based on the presidential decree Number 19 Year 2010, to follow up the Indonesian-Norwegian partnership program

(Caldecott, 2011). The NTFCC is assigned to prepare the institutions needed to manage REDD+ in Indonesian implementation at the national level. The taskforce will also implement the letter of intent (LoI) signed by Indonesia and Norway on the REDD+ partnership<sup>7</sup>. The taskforce is working to prepare the organization of REDD+ in Indonesia. It will set up agencies on REDD+, a financing unit and the measurable, reportable and verifiable (MRV) to ensure measurable reduced emissions.

Fourth, the LTS-LCCR is also positioned as a tool for strengthening the vision of 'One Hundred Years Indonesia' (Visi Indonesia 2045) towards a developed and prosperous Indonesia based on its four following pillars: "human resource development and science and technology advancement; sustainable economic development; equitable development, and, strengthening national resilience and public sector governance" (ICCTF, 2023) Besides that, Indonesia also the Parties of UNFCCC and the Kyoto Protocol that reflects the good intention of Indonesia to mitigate climate change and to create climate justice.

The Presidential Regulation Number 98 Year 2021 on the Implementation of Carbon Pricing to Achieve the Nationally Determined Contribution Target and Control over GHS in the National Development. The President Regulation is intended to serve as a basis for the implementation of carbon pricing and to be a guideline on GHG emission reduction through policies, measures, and activities to achieve NDC target and to control GHG emissions in the national development. The aim, as set out in article 3 para. 1, is to regulate GHG emission reduction, climate resilience enhancement, and carbon pricing in order to achieve NDC target. The scope of this Presidential Regulation is set out in article 4 and includes: efforts to achieve the NDC target; procedure for carbon pricing implementation; transparency framework; monitoring and evaluation; capacity building and finance; and steering committee.

In September 2022, Indonesia submitted the Enhanced NDC to the UNFCCC Secretariat (Antara, 2022). The document contains the increased target of emission reduction from 29 percent to 31.89 percent unconditionally and from 41 percent to 43.20 percent conditionally. Apart from the Enhanced NDC document,

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<sup>7</sup>Ibid.

the country submitted the Long-Term Strategy for Low Carbon and Climate Resilience 2050 (LTS-LCCR) document, determining a vision to enhance national climate action ambition.<sup>8</sup>The document further affirms the target of Carbon Neutrality, even more, Carbon Net Sink for the FOLU sectors by 2030. Indonesia had gradually progressed in REDD+ implementation from readiness, transition, and has entered the full implementation since 2014. With the release of this REDD+ National Strategy, it is expected that REDD+ in Indonesia can be implemented more effectively and that contributes meaningfully to the achievement of NDC target, FOLU net-sink 2030 and other national and global goals.

#### 4. CONCLUSION

The implementation of sustainable development to achieve climate justice in Indonesia needs a great efforts from the government of Indonesia. Climate justice is not an essay matter that can be achieved. The Indonesian government needs to improve the policies, strategies and encourage public participation to reduce the emission especially the business authors as well as the common people. In facts there are some challenges that to be addressed to achieve sustainable development. Thus, there are some opportunities that can be performed to implement sustainable development to achieve climate justice in Indonesia. The government needs to educate the people in Indonesia in order to increase the awareness of the people concerning the threat of climate change and to introduce the mechanism of mitigation and adaptation of climate change. Cooperation all stakeholders who get involve in mitigation and adaptation of climate change needs to be improved and as well as the budgeting to implement all the policies and strategies to implement sustainable development in all aspect of activities to achieve climate justice in Indonesia.

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