# Table of Contents of Complaints

1. **PRELIMINARY** ........................................................................................................................................... 3
2. **THE PLAINTIFFS** ................................................................................................................................. 7
3. **THE ADMISSION OF COMPLAINTS** .................................................................................................... 8
4. **BASES OF COMPLAINTS** .................................................................................................................... 9
   4.1. Climate change has generated losses in Indonesia and threatens to provoke irreversible catastrophic impacts when unaddressed ........................................................................................................... 9  
     
   a) **Heat waves cause death and heat-related illness and impact outdoor work productivity**........ 10 
   b) **Rising sea surface temperatures result in coral reefs bleaching and a decline in fish stocks, causing food insecurity and loss of livelihoods in tourism and fisheries**................................. 12 
   c) **Changes in precipitation levels cause drought and water insecurity, and flooding** ............. 14 
   d) **Increased extreme heat, drought, and rainfall bring changes in plant diseases and pests, water insecurity, crop failure, and food insecurity** ....................................................................... 16 
   e) **Tidal floods, high waves, and strong winds due to sea level rise endanger lives, cause loss of living space, shelter, food, and water insecurity** .............................................................. 18 
   f) **Climate change causes a disproportionately higher incidence of vector-borne diseases affecting children and vulnerable populations** ......................................................................................... 20 
   4.2. Climate Change has exposed plaintiffs to life-threatening hazards, health risks, food and water insecurity, and disruption to their education and livelihoods ........................................................................... 22  
     
   4.2.1. Plaintiff MA (7) ............................................................................................................................... 22 
   4.2.2. Plaintiff J (11) ............................................................................................................................... 24 
   4.2.3. Plaintiff Rasya Assegaf (15) ......................................................................................................... 26 
   4.2.4. Plaintiff RX (23) .......................................................................................................................... 28 
   4.2.5. Plaintiff Abdul Wazid (24) ......................................................................................................... 30 
   4.2.6. Plaintiff DD (26) .......................................................................................................................... 31 
   4.2.7. Plaintiff Zullya Pratiwi (29) ........................................................................................................ 33 
   4.2.8. Plaintiff ZA (36) .......................................................................................................................... 34
4.2.9. Plaintiff M. Mansur Dokeng ('Dewa') (39), MB (59), BE (48), AS (45), and Radith Giantiano (29), representing fishermen and coastal communities of Kupang City affected by Siklon Seroja (Cyclone Seroja)...........................................................................................36

4.3. The Government of Indonesia has a constitutional responsibility to protect plaintiffs from the human rights impacts caused by the climate crisis.................................................................................................................................38

4.3.1. The human rights obligations of the government concerning the climate crisis are based on the 1945 Constitution and Indonesian law.................................................................38

4.3.2. States' responsibilities for human rights and climate change must be interpreted in a manner consistent with the sources of international human rights law accepted by governments..................................................................................................................41

4.4. The government fails to fulfill its responsibility to respect, protect, uphold and promote human rights from the disturbances and threats of climate change..................................................49

4.4.1. The government does not maximally mobilize the available resources at the highest possible ambition in Indonesia's climate mitigation actions.........................................................53

4.4.2. The government fails to establish adequate resilience and adaptation to the current and projected impacts of climate change in Indonesia..............................................................................66

4.4.3. The government fails to fulfill procedural responsibilities in ensuring that all climate change mitigation and adaptation actions are inclusive, participatory, and equitable.......................73

4.5. The Government violates the human rights of the plaintiffs by contributing to and exacerbating the predictable impacts of climate change........................................................................................................75

4.5.1. The Government reduces the rights of the plaintiffs to live (Article 28(A) of the 1945 Constitution) and the right to live in physical and spiritual prosperity in a good and healthy environment (Article 28H) by contributing to and exacerbating the predictable impacts of climate change........................................................................................................................................75

4.5.2. The Government violates the rights of the plaintiffs of self-development through the fulfillment of basic needs (Article 28C(1) of the 1945 Constitution) by contributing to and exacerbating the predictable impacts of climate change..................................................................................................................................................................................84

4.5.3. The Government violates the Plaintiffs' rights to food and water (Article 28C(1) and Article 28H(1) of the 1945 Constitution) by contributing to and exacerbating the predictable impacts of climate change..................................................................................................................................................................................86

4.5.4. The Government violates the Plaintiffs right to education by contributing to and exacerbating the predictable impacts of climate change..................................................................................................................................................................................91

4.5.5. The government violates the Plaintiffs' right to work and earn a decent living by contributing to and exacerbating the predictable impacts of climate change..................................................................................................................93

4.5.6. The Government violates children's rights by not considering the best interests of children in its climate actions.........................................................................................................................96

4.6. Conclusion: The plaintiffs' human rights have been violated as a result of the Government's actions and omissions related to climate change..................................................................................98

5. PETITION...........................................................................................................................................................................99
COMPLAINTS TO THE NATIONAL COMMISSION ON HUMAN RIGHTS OF THE REPUBLIC OF INDONESIA

“NEGLIGENCE OF THE CLIMATE CRISIS IS A VIOLATION OF HUMAN RIGHTS”
14 July 2022

1. PRELIMINARY

1. Climate change is currently happening and directly impacting the environment in Indonesia. Indonesia is on track to experience severe impacts of climate change in the century, such as drier and more prolonged droughts, extreme heat that will render large parts of Indonesia uninhabitable, declining fish stocks due to coral reefs bleaching, changing rainfall patterns that threaten agriculture, tidal flooding, high waves and strong winds on the coast, and increasing vector-borne diseases such as dengue hemorrhagic fever and malaria.¹

2. Fourteen plaintiffs conveyed this complaint to National Commission on Human Rights, including three children aged 7 to 15 years and ten youth and affected groups from various generations. Coming from different regions of Indonesia, from urban and rural areas in Java, Kalimantan, Nusa Tenggara, and Papua, the plaintiffs were united by a shared endeavor in filing this complaint: the Plaintiffs want to defend their human rights from the impacts of climate change and will further jeopardize their human rights.

3. Climate change interferes with the plaintiffs' human rights enjoyment. Since childhood, child plaintiffs MA (7), J (11), and Rasya (15) have experienced extreme heat in their hometowns, Samarinda and Jakarta. J and Rasya – who grew up witnessing a sharp increase in climate impact events and have studied climate change impact projections – worry about their future in surviving an unsafe climate. Plaintiffs RX and Tiwi witnessed how climate change is exacerbating susceptibility at the local level; Plaintiff RX and Tiwi faced the Batu flash flood, which affected Malang. For a month, plaintiff Tiwi had to live with the floods in Sintang. Both experience threats to life, health, and living space and have difficulty accessing food, water, and basic needs. Plaintiffs Wazid and ZA, who make a living from farming, faced drought, extreme rainfall, and pest attacks that damaged crops and threatened their livelihoods. Five fishermen plaintiffs from Kupang were affected by Cyclone Seroja, faced a threat to their lives, witnessed the cyclone destroying their homes, boats, and fishing gear, and are still struggling with the long-term impacts of climate change on livelihoods and fish stocks. Plaintiff Dina Maria Danamora, in the future abbreviated as DD, saw that tidal floods and strong winds hit her living space and residence.

4. The plaintiffs' stories represent the experiences of millions of children, youth, and affected groups across Indonesia whose human rights cannot be fully realized due to climate change. Climate change has caused losses in Indonesia and threatens to cause irreversible catastrophic impacts unless global temperature rise is limited to 1.5°C as recommended by the IPCC. Some of the plaintiffs' misfortunes can be attributed entirely to climate change. At

the same time, some bear the double burden of environmental impacts resulting from carbon-intensive development that increases land vulnerability, combined with climate change impacts. Climate Change has exposed plaintiffs to life-threatening hazards, reduced physical well-being, increased health risks, food and water insecurity, and disrupted their education and livelihoods. Climate science projects that all of the impacts discussed above will worsen as climate change heightens, and the risk will multiply with every slight increase in warming.

5. The Government of Indonesia ("Government") has recognized that climate change is a human rights issue and has committed to addressing climate change at the highest level of ambition possible. In fulfilling its human rights responsibilities under the 1945 Constitution and law, which is interpreted in light of Indonesia's human rights obligations under international human rights law, the Government must:
   a) mobilize the maximum available resources at the highest possible ambition in Indonesia's climate mitigation actions;
   b) build adequate resilience and adaptation to current and projected climate change impacts in Indonesia; and
   c) fulfill procedural responsibilities to ensure that all climate change mitigation and adaptation actions are inclusive, participatory, and equitable.

6. However, the Government has failed to fulfill these responsibilities. Governments have contributed to and continue to perpetuate, even exacerbate, the climate crisis by knowingly acting in disregard of the available scientific evidence regarding the steps needed to mitigate and adapt to climate change. The government continues to carry out actions that are not following its obligations on climate mitigation, adaptation, and procedural rights. Indonesia remains one of the world's highest emitters of greenhouse gases from the forestry and energy sectors and continues to depend on deforestation and fossil fuels for growth. Indonesia's current greenhouse gas reduction targets do not match the safe climate goal. The global average temperature increase needs to be limited to below 1.5°C, and even achieving this low target may not be achievable. Indonesia continues to pursue laws and policies that support a carbon-intensive sector. In addition to increasing emissions, these laws and policies also exacerbate vulnerability at the site and make adaptation very difficult. Meanwhile, adaptation at the lowest level has not been well integrated into existing social, environmental, and budgetary policies at the domestic level. Be it in mitigation and adaptation, the Government has also not disclosed information and ensured meaningful participation, considering vulnerability and inclusiveness at the local level.

7. Thus, the Government violates its constitutional duty to advance, protect, uphold and fulfill the plaintiffs' human rights. In this complaint, the plaintiffs specify that climate change is interfering with their human rights as follows:
   a) **The right to life and the right to live in physical and spiritual prosperity in a good and healthy environment:** Climate change increases the frequency and severity of hydrometeorological events and extreme weather events, such as floods, droughts, and heat waves, which can be fatal. Furthermore, these dangerous conditions can harm human health and the ecosystems on which we depend. Environmental damage caused by climate change undermines all plaintiffs’ enjoyment of the right to a good and healthy environment. Some plaintiffs, such as RX and fishermen from Kupang, have experienced life-threatening events that undermined their right to life, such as the Malang flood, which claimed seven lives, and Cyclone Seroja, which killed 230 people. Many of the petitioners have experienced health problems exacerbated by climate change, which
threatens their right to health, such as MA, who contracted dengue fever at the age of seven, and DD, who has contracted malaria. Some plaintiffs who already have particular vulnerabilities will be increasingly threatened by the health impacts of climate change, such as Wazid, where the neighborhood's fulfilling access to medical care is still distant from adequate. He witnessed a malaria outbreak near his residence. Plaintiffs DD, MA, J, and RA, have special vulnerabilities to the various health effects of climate change – including those caused by heat – and face the psychological dangers exacerbated by climate change.

b) The right to self-development through meeting basic needs: Hydrometeorological disasters and extreme weather related to climate change have also undermined Plaintiffs' access to basic needs, including housing, clothing, food, and medical services. For example, fishermen plaintiffs from Kupang witnessed cyclone Seroja eliminating their efforts to fulfill their basic needs. The cyclone damaged their homes and tools, forcing them for months to repair the damage and returning to fulfill their basic needs. The farmers' plaintiffs, Wazid and ZA, are faced with the threat of crop failure due to climate change, which will largely determine their income and, thus, capacity to meet basic needs.

With the threat of extreme weather, owning a house becomes much more difficult, as experienced by DD other fishermen plaintiffs, whose house was damaged by tidal floods, high tides, and storms. During the floods in Malang and Sintang, RX and Tiwi experienced reduced access to all basic needs, including food and medical care. Flooding increased the spread of diseases such as dengue fever and diarrhea. As climate change worsens, the rights of child plaintiffs, such as DD, MA, J, Rasya, and youth plaintiffs, to develop and fulfill their basic needs are most threatened.

c) The right to food and water: Climate change disrupts agricultural, livestock, and fishery activities. It also threatens food security. The plaintiffs' rights to adequate food and nutrition as basic human needs are disrupted by climate impacts such as increased temperatures, decreased soil fertility, changes in rainfall patterns, extreme weather events, and the spread of pests and weeds; impacts all of which increase the risk of crop failure, reduce crop yields and food nutrition, and increase food prices. At the same time, climate impacts such as extreme heat events, droughts, and hydrometeorological disasters disrupt the availability of and access to water resources. As farmers, plaintiffs Wazid and ZA have experienced crop disruptions due to drought and unexpected rainfall and experienced or witnessed water shortages that interfered with access to clean water for drinking and agriculture. On the other hand, fishermen plaintiffs from Kupang have witnessed how cyclone Seroja destroyed coral reefs and
reduced fish stocks, an important marine protein intake for Kupang city. Efforts to restore coral reefs and fish stocks are also increasingly challenging under climate risks, particularly extreme heat.

d) **The right to education**: With increasingly uncertain weather, extreme heat, and increasing natural disasters due to climate change, it is increasingly difficult for children to relish their right to education. The plaintiff MA had to be absent from school for a week because of dengue fever. J and Rasya have experienced a heatwave in Jakarta, which increases the risk of tarnished school attendance and the ability to participate in class. Kupang fishermen plaintiffs witnessed their children's schools being damaged by the cyclone and how challenging it was to secure financing for their children's schooling with their income disrupted by the cyclone. This was witnessed by plaintiffs RX, Tiwi, and DD, who witnessed firsthand how hydrometeorological disasters such as hurricanes and floods can cause school closures and damage to educational facilities. All child plaintiffs are at a higher risk of dealing with the future impacts of climate change, which could disrupt their education.

e) **The right to work and earn a decent living**: Climate change has threatened several types of work, including the livelihoods of fishermen and farmers who depend on a safe climate. Every year, plaintiffs Dewa, MB, BE, AS, and Radith face a threat to their lives, with high waves and strong winds at sea exacerbated by climate change. Plaintiffs Wazid and ZA, who work as farmers, must be exposed to extreme heat and face increased safety risks due to heat exhaustion and heat stress. All the Plaintiffs have faced significant economic disruption due to climate change, threatening the fishermen plaintiffs to be unemployed for months due to the damages to their working tools. Farmers' plaintiffs have to bear losses due to crop failure, which can force them to quit their jobs. In addition, child plaintiffs MA, J, and Rasya will experience a decrease in the availability of jobs in their adulthood due to worsening climate change; and have to deal with more and more disruptions to work productivity.

f) **The right of Children**: 79.55 million Indonesian children and youth, such as plaintiffs MA, J, and Rasya, will bear the heaviest burden of climate change impact as they age in an increasingly dangerous climate and environment. At the same time, youth are among the most vulnerable to the consequences of climate change today and, therefore, most vulnerable to all of the above human rights violations.

8. The plaintiffs request that the National Commission on Human Rights state that the Government’s failure to mitigate, adapt and fulfill procedural rights to climate change is a violation of the Government’s obligation to advance, protect, uphold and fulfill the plaintiffs' human rights. Second, the plaintiffs demand National Commission of Human Rights recommend the Government immediately take all necessary actions to prevent further violations of these human rights by (1) mitigating greenhouse gas emissions by using the maximum available resources with ambition as high as possible; (2) implementing climate adaptation measures by prioritizing vulnerable groups; and (3) ensuring that all actions carried out are consistent with an inclusive, participatory and fair approach.
9. As a matter of great importance to all Indonesians, considering the threat of climate change to the human rights of all, the plaintiffs demand that this complaint and the Commission's investigation and findings be made public while protecting the identity of the plaintiff who requested the Commission to keep their identity confidential.

2. THE PLAINTIFFS

10. The plaintiffs are 13 (thirteen) children, youth, and vulnerable groups from various generations, aged 7 to 59 years, from various regions throughout Indonesia whose human rights are affected by the Government's actions in responding to climate change.

11. **Plaintiff MA (7)**

MA, seven years old, was born in Samarinda and then migrated to Bogor following his father.

12. **Plaintiff J (11)**

J, 11 years old, was born, lives, and grew up in Mampang, South Jakarta, DKI Jakarta. Since learning about climate change at school and experiencing the effects of heat firsthand, J has become a child activist, joining the climate strike and donating his pocket money to a disaster relief fund, hoping to ensure a safe and healthy environment for his future.

13. **Plaintiff Rasya Assegaf – Rasya (15)**

Rasya Assegaf, 15 years old, was born and grew up in Jakarta. He relocated several times following her mother's and father's to obtain an education but now returns to live and attend school in Jakarta. Since learning about climate change at school, Rasya has tried to choose the most environmentally friendly actions in his daily life. Rasya is also involved in various small environmental volunteer groups in his school and communities.

14. **Plaintiff RX (23)**

RX, 23 years old, was born and grew up in Jakarta, migrated to Malang to study at University B, and after graduating, has now returned to Jakarta for a career. Since studying climate change in college, RX has joined the Extinction Rebellion and Pause for Climate, participating in climate demonstrations, actions, and the creation of petitions and open letters related to government climate action.

15. **Plaintiff Abdul Wazid – Wazid (24)**

Wazid, 24 years old, was born and grew up in Sembalun, Lombok Island, West Nusa Tenggara. Raised in a farming family in a farmer’s village, Wazid cultivates a 1-hectare garden completely dependent on rainfall. Wazid joins the Rinjani Nature School and, with young farmers from the seven descendants of Sembalun farmers, manages the environmental protection community in Sembalun.

16. **Plaintiff DD (26)**

DD, 26 years old, grew up in Biak, moved around several cities during her school days, and now works in Jayapura, Papua. Since learning about climate change at her school and university, DD has initiated an awareness-raising initiative in Papua regarding
environmental change, including climate change, particularly concerning indigenous Papuans' traditional way of life and culture.

17. **Plaintiff Zulya Pratiwi – Tiwi (29)**

Zulya Pratiwi, 29 years old, lives and works in Baning Kota, Sintang Regency, West Kalimantan. Her concern for deforestation and the climate crisis prompted Tiwi to join Extinction Rebellion. She has participated in various climate demonstrations and actions, including the creation of petitions and open letters related to government climate action.

18. **Plaintiff ZA (36)**

ZA, 36 years old, grew up in a farming family in Demak and now works as a public lawyer while tending gardens in his hometown. ZA has assisted many farmers in agrarian issues and initiated collective farmers in their villages to be more empowered, including practicing local wisdom in adapting to climate change.

19. **Plaintiff M. Mansur Dokeng ('Dewa') (39), MB (59), BE (48), AS (45), and Radith Giantiano ('Radith') (29)**

 Plaintiffs Dewa, MB, BE, AS, and Radith are all fishermen who live in various villages in Kupang City. They all grew up in a coastal culture and fishing family, supporting themselves and their families by fishing in the surrounding waters of Kupang. They also partake in improving climate resilience in their homes, such as Dewa, who independently built a weather monitoring post, and Radith, who, with his community, is active in restoring coral reefs in Kupang.

20. Referring to Article 92 paragraph (1) of Law no. 39 of 1999 concerning Human Rights (the “Human Rights Law”), the plaintiffs requested National Commission of Human Rights to keep the identity of the plaintiffs confidential, except for those whose names are clearly stated in this complaint. This is deemed necessary, considering that some of the plaintiffs are child plaintiffs under 18 (eighteen), and the complaint material is related to several national policies that pose a high risk to the safety and well-being of the plaintiffs.

### 3. ACCEPTANCE OF COMPLAINTS

21. The human rights subject of this complaint are enshrined in the 1945 Constitution (UUD 1945) and Indonesian laws and regulations, particularly the Human Rights Law. The 1945 Constitution guarantees the human rights related to each plaintiff as follows:

   a. The right to life and the right to live in physical and spiritual prosperity in a good and healthy environment (Article 28A and Article 28H paragraph (1) of the 1945 Constitution; Article 9 paragraph (1), (2), and (3) of the Law on Human Rights), is described further in Section 4.5.1.

   b. The right to self-development through the fulfillment of basic needs (Article 28C paragraph (1) of the 1945 Constitution; Articles 11 and 40 of the Human Rights Law) is further explained in Section 4.5.2.

   c. The right to food and water (Article 28C(1) and Article 28H(1) of the 1945 Constitution; Article 11 of the Human Rights Law) is further explained in Section 4.5.3.
d. The right to education (Article 28C paragraph (1) and Article 31 paragraph (1) of the 1945 Constitution; Article 12 of the Human Rights Law) is further explained in Section 4.5.4.

e. The right to work and earn a decent living (Article 27 paragraph (2) and Article 28D paragraph (2) of the 1945 Constitution; Article 38 paragraph (1), (2), and (4) of the Human Rights Law), further explained in Section 4.5.5.; and

f. Children's rights (Article 28B paragraph (2) of the 1945 Constitution; Articles 52-66 of the Human Rights Law), are further explained in Section 4.5.6.

These rights apply to all people, including children and youth in Indonesia and vulnerable groups, who are entitled to special facilities and treatment to fulfill their human rights.

22. This complaint is within the scope of the functions, duties, and authorities of National Commission of Human Rights. Each plaintiff has suffered harm to their protected rights due to the Government's failure to address climate change and its impacts; therefore, they can file a complaint with National Commission of Human Rights, based on Article 90 paragraph (1) of the Human Rights Law. Since this is a human rights issue, this complaint falls within the jurisdiction of National Commission of Human Rights, the independent national human rights authority in Indonesia.

23. This complaint is specifically within the monitoring and mediating function of National Commission of Human Rights, based on Article 76 paragraph (1) of the Human Rights Law. To carry out these functions, National Commission of Human Rights has the duty and authority to, among other things, observe the implementation of human rights and, prepare reports on the results of these observations; investigate and examine events arising in the community based on the nature or scope of which it is reasonable to presume that there have been violations of human rights, and submit recommendations on a case of human rights violations to the Government for follow-up resolution.

4. BASES OF COMPLAINT

4.1. Climate change has caused losses in Indonesia and threatens to cause irreversible catastrophic impacts if not addressed.

24. Climate change is a threat to the survival of humankind has a real and direct impact on all aspects of human life. When warming exceeds 1.5°C, the earth will experience irreversible catastrophe. The IPCC warns that even a 1.5°C increase in global average temperature, even if temporary, would have irreversible consequences. Scientific projections confirm these irreversible impacts include more frequent and longer-lasting heat waves and loss of coral reefs and wetlands – both essential.

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ecosystems that underpin the livelihoods of the most vulnerable communities. A temperature rise of more than 1.5°C can also trigger cycle feedback, such as permafrost thawing, which may be impossible to stop.

25. Climate change is not a natural disaster beyond human control. The global scientific consensus confirms that climate change is caused by human activities, driven by the rapid increase in greenhouse gas (GHG) emissions – especially carbon dioxide (CO2) – from burning fossil fuels. Limiting warming to 1.5°C is a choice that all countries in the world must make because only in this scenario can the world experience fewer negative impacts on resources, ecosystems, biodiversity, food security, freshwater security, and livelihoods compared to higher temperature rise.\(^5\)

26. The Indonesian government recognizes that the country is extremely vulnerable to the impacts of climate change. In its various laws, as elaborated in Section 4.3.1, Indonesia recognizes that climate change will cause sea level rise, storm surges, tidal flooding, shifts in the rainy and dry seasons, changes in the intensity and duration of rain, decreased food production, disturbances availability of water, the spread of pests, plant and human diseases, sinking of small islands, and loss of biodiversity.\(^6\)

27. As outlined in the examples below, Indonesia is already experiencing serious climate change impacts, complemented by climate science projections of the future worsening of these impacts. In some instances, the direct impact of carbon-intensive activities exacerbates vulnerability at the local level. While individual weather events are not necessarily caused by climate change, trends in climate change mean all impacts are projected to worsen dramatically as global temperatures rise. “Climate attribution” studies can now mathematically calculate that certain events are more likely to occur with climate change based on model comparisons with and without weather coercion. At the same time, climate impact projection studies, including those summarized by the IPCC, project only the impacts of climate change and may greatly underestimate the actual impacts at any given site – especially considering the aggravation of vulnerability to environmental impacts from activities at the local level.

28. Some of the main impacts of climate change in Indonesia are outlined below, including heat stress, drought, rising sea temperatures, and tidal flooding.

a) **Heat waves cause death and heat-related illness and impact outdoor work productivity**

29. The increase in heat is linked to climate change as the addition of GHGs to the atmosphere entraps heat and prevents it from leaving the atmosphere, increasing

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\(^6\) Indonesia, Law on Environmental Protection and Management, Law no. 32 of 2009, LN No. 140 of 2009, TLN No. 5059, Considering Section letter (e); Indonesia, the Law on the Ratification of the Paris Agreement, Law no. 16 of 2016, LN No. 204 of 2016, TLN No. 5939, Articles 1-2.
global temperatures. Heatwaves have been recorded across Indonesia. In 2019, the temperature in Tangerang reached 39.6°C and Makassar 38.8°C, breaking records for hot temperatures that have never been recorded. Since BMKG recorded national temperatures in 1981, three of the hottest years have occurred in this decade, i.e., 2016, 2019, and 2020.

30. A study of Indonesia’s temperature trends shows that the frequency of cool days and cool nights decreases while warm days and nights increase. The average daily maximum yearly increases by 0.18°C per decade while the annual average daily minimum temperature increases by 0.30°C per decade. Other temperature indices also show significant warming trend.

31. The IPCC (2021) projected that even in the 1.5°C scenarios, the intensity and frequency of heat waves are very likely to increase. With the current projected global temperature direction of 3°C to 4°C in 2100, daytime highs above 40°C will occur for 10 to 40 days per year in eastern Sumatra, eastern Kalimantan, and northeastern Java.

32. If global warming reaches two °C, almost all lowlands in Indonesia will experience annual temperatures above 29°C, where life will become “too hot to live” for humans, agriculture, and livestock. This annual temperature does not currently occur anywhere on earth other than in the Sahara Desert.

33. According to the World Health Organization, in the high emission scenario, heat-related deaths in Indonesia in the elderly are projected to increase more than fifty-fold, to approximately 53 deaths per 100,000 by 2080 compared to baseline [current statistics] of less than one death per 100,000 per year between 1961 and 1990. A 2020 study projected

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13 Ibid.
14 Ibid.
heat-related deaths for the elderly in Jakarta in 2050 to increase 12 to 15 times compared to 2010.\textsuperscript{19}

34. In addition, the health effects of extreme heat need to be taken into account with the high humidity in Indonesia,\textsuperscript{20} which makes evaporation of sweat and cooling off the body even more challenging.\textsuperscript{21} The effects of heat–humidity will be felt especially by people without access to air conditioning, the elderly, people working outside, and those with underlying health problems.\textsuperscript{22} Health and economic impacts of heat stress include death, heat stroke, exacerbation of existing illnesses, decreased productivity and work capacity leading to financial hardship, and large-scale economic consequences.\textsuperscript{23} A 2021 study discovered that heat stress in informal settlements in Makassar, Sulawesi is close to the limits of human survival, even outdoors and at night.\textsuperscript{24}

35. In Indonesia, 40% of the workforce is engaged in agriculture, and more than 60% of the population lives in coastal areas, making the country particularly vulnerable to extreme heat events.\textsuperscript{25} International Labor noted that Indonesia’s climate models project that lost work hours due to heat pressure—even in shady conditions—would be equivalent to 4 million full-time jobs (3% of working hours) by 2030, up from 1.8 million jobs (2.1% of working hours) in 1995. Heat stress will be much worse for agricultural workers and construction workers working in the sun.\textsuperscript{26}

36. As explained in section 4.2. below, at least eleven plaintiffs have been exposed to extreme temperatures due to climate change. Plaintiff MA experienced a heatwave in Samarinda when he was under three years old, the highest susceptibility age to heat-related death. Plaintiff J and Rasya experienced a heat wave in their hometown, Jakarta. Plaintiffs Wazid and ZA, who work as farmers; and plaintiff Dewa, MB, BE, AS, and Radith, who work as fishermen – whose livelihoods require outdoor activities – will find it more challenging to do their job and are more at risk of being affected in extreme heat conditions.

b) \textit{Rising sea surface temperatures result in bleaching of coral reefs and a decrease in fish stocks, causing food insecurity and loss of livelihoods in tourism and fisheries}

37. Global warming has been shown to cause an increase in sea surface temperatures which can have dire consequences for marine ecosystems and the communities that depend on them.\textsuperscript{27}

\begin{itemize}
\item \textsuperscript{22} \textit{Ibid}.
\item \textsuperscript{24} \textit{Ibid.}, p. 6.
\item \textsuperscript{26} International Labour Organization, Working on a warmer planet: The impact of heat stress on labor productivity and decent work, (Geneva: International Labour Organization, 2019), p. 64.
\item \textsuperscript{27} Intergovernmental Panel on Climate Change, \textit{Climate Change 2022: Impacts, Adaptation, and Vulnerability}, p. 236.
\end{itemize}
The IPCC (2022) warns that “Almost all coral reefs will experience deterioration from their current state, even if global warming remains below two °C (very high confidence), and coral reef communities in the remaining shallow waters will experience changes in species composition and diversity compared to current coral reefs (very high confidence). This will greatly reduce the environmental services [coral reefs] provide to the community, such as food provision (high confidence), coastal area protection (high confidence), and tourism (medium confidence).”

38. **Long-Term Strategy for 2050 Low Carbon and Climate Resilience (2021) Indonesia** states:

"The increase in Sea Surface Temperature (SST) will affect changes in the migration pathways of fish and other marine biotas, coral bleaching, loss and destruction of mangrove forest and seagrass ecosystems, and imbalances in marine mammal populations."  

“Increased sea temperatures due to climate change in coral reef areas will threaten coral life in the form of massive coral bleaching. [...] Coral bleaching has a significant impact on fish populations because [coral reefs] are habitat for thousands of coral reef fish species. In addition, coral reefs also function as energy absorbers and high waves that reduce the risk of coastal erosion. Thus, damage to coral reefs increases the risk of coastal erosion.”

39. The IPCC AR6 Interactive Atlas shows that in a business-as-usual (high) emission scenario, all Indonesian waters will experience an increase in sea surface temperature of 1.5°C in 2040 and an increase in temperature of more than three °C in 2100.

40. In 2016, El Nino put corals under pressure on approximately 39% of Indonesia's coral cover. Loss of income due to coral bleaching has already impacted small-scale fishing and driven food and income poverty.

41. A 2018 study of World Heritage-listed coral reefs found that under the current emissions scenario, corals would bleach twice per decade, starting in 2017 in Komodo National Park and 2032 in Ujung Kulon National Park, causing “severe damage to ecological functions and a reduction in the quality and quantity of the associated ecosystem services provided to humankind. The study found that the likelihood of coral reefs bleaching and destruction..."
is not as high as in the very low emission scenario where global temperature rise is capped at 1.5°C.\textsuperscript{36}

42. By 2100, Indonesia could lose coral reef cover between 25% (low emission scenario) to 82% (high emission scenario). Most coral reef-based tourism could be lost in both scenarios.\textsuperscript{37}

43. The impacts of climate change interact with and exacerbate losses from overfishing, coastal erosion, destruction of mangroves, trade in endangered species, chemical pollution of coastal and marine areas, thermal pollution, toxic and destructive fishing, and illegal, unreported, and unregulated fishing.\textsuperscript{38}

44. Some climate models project that in a high emission scenario, climate change alone will lead to a 29% reduction in potential fish catches by 2050 and a 63% decrease by 2100.\textsuperscript{39} AR6 from the IPCC projects that there will be a continuous decline in catches with an impact in the seafood sector in Indonesia.\textsuperscript{40}

45. Plaintiff Radith has witnessed how warming bleaches coral reefs, which will reduce fish stocks. Plaintiff Dewa, MB, BE, and AS will find it increasingly difficult to recover from the catastrophic impacts of climate, with warming threatening the regrowth of coral reefs destroyed by cyclones. Plaintiffs Rasya and RX, because of their knowledge of the above impacts, are concerned about future food insecurity. A strong scientific basis supports the concern about the food crisis.

c) \textit{Changes in the level of precipitation carry drought and water insecurity, and flooding}

46. Increasing global temperatures due to climate change will result in more unpredictable rainfall patterns and changes in precipitation levels, including droughts and floods. Indonesia's Long Term Low Carbon and Climate Resilience Strategy 2050 (2021) states:

> “Rainfall is projected to experience an anomaly of increasing monthly rainfall that exceeds 200 mm/month. The RCP4.541 [...] scenario shows that annual rainfall could decrease by as much as 20%, especially in the southern region from 2016-2035. Rainfall is projected to increase by up to 20%, especially

\textsuperscript{36} Ibid.
\textsuperscript{39} World Bank Group/Asian Development Bank, “Climate Risk Country Profile Indonesia (2021).”
\textsuperscript{41} The RCP4.5 scenario in the IPCC’s Fifth Assessment refers to moderately limited global emissions that will cause a global temperature rise that is likely to exceed 1.5°C by 2100 (high confidence) and most likely to exceed 2°C (moderate confidence). See: Intergovernmental Panel on Climate Change, “Synthesis Report,” https://ar5- syr.ipcc.ch/topic_summary.php, accessed on 28 June 2022.
47. AR6 from the IPCC has high confidence in decreasing precipitation rates in Indonesia and projects an increase in the occurrence of severe droughts. In Java, Sumatra, and Kalimantan, the average rainfall is projected to decline by 20-30% during June, July, and August at the end of the 21st century (moderate confidence).45

48. Research on the attribution of climate to drought and extreme heat in Indonesia found that the southern part of Indonesia is particularly vulnerable to drought and heat-related climate change between July and October. The study also found that the likelihood of drought in the dry season in 2015 increased by 37% to 100% due to anthropogenic climate change. The 2015 high temperatures were also entirely attributed to anthropogenic climate change, not natural weather variability. Ultimately, the study also found that during El Nino, combined with anthropogenic warming from emissions of greenhouse gases, the model found severe droughts to be 300-500% more likely to occur.49

49. BNPB's 2020 disaster risk index characterizes 405 of 501 cities/districts across Indonesia as "high risk" for drought. In 2018, drought affected 4.87 million Indonesians in 4,053 villages, causing a severe water crisis impacting drinking water and rice fields. In 2020, in East and West Nusa Tenggara, extreme drought caused forest fires, so the area became the center of new forest fires with a burned area of more than 352,222 ha. KLHK projects the loss of water resources caused by the disruption of the water balance in the territory of Indonesia, ranging from Rp. 24.5 T to Rp. 31.78 T.53

50. Apart from drought, stronger precipitation due to climate change, on the other hand, causes increased rainfall in parts of Indonesia. Central Java, northern Kalimantan, and parts of Papua will experience high rainfall in the wet season.

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44 Intergovernmental Panel on Climate Change, Climate Change 2022: Impacts, Adaptation, and Vulnerability, p. 11-1110.
47 Ibid.
48 Ibid.
49 Ibid.
53 Ibid., p. 33.
which contributes to an increase in the frequency of wet days. KLHK projects, “Rainfall will increase by up to 20%, especially in the northern and eastern parts, i.e., Kalimantan and Papua, for the period 2046-2065 and 2081-2100. [...] The areas where extreme rainfall occurs are Papua, West Kalimantan, and Central Kalimantan.”

51. Observations from various parts of Asia show that rainfall intensity for extreme rain events increases with rising temperatures. In addition, the IPCC projects moderate confidence that extreme La Nina events will become more frequent. High rainfall due to climate variability can pose the danger of floods, landslides, and droughts which are generally caused by the parameters of rainfall and climatic events as well as extreme weather.

52. In particular, Indonesia already has high exposure to all forms of flooding, which is likely to increase with development and climate change. Regardless of other factors, climate change is expected to increase the population affected by floods annually by 400,000 people in 2030 (compared to a baseline of 1.5 million people) and increase urban damage by US$6.1 trillion in the high-emissions scenario. Even in the low-emissions path, almost all Asian countries face extreme increases in river flow frequency, which could increase the frequency of 100-year events to become 50-year or 25-year events across much of South, Southeast, and East Asia. This increase in currents could lead to an increase in the population affected by extreme flooding in the range of 817,000 to 2,537,000 people in 2035–2044.

53. As explained in Section 4.2.1, plaintiffs RX and Tiwi are victims of floods caused by climate change. In addition, the areas where plaintiff Wazid, plaintiffs Dewa, MB, BE, AS, and Radith live in West Nusa Tenggara and East Nusa Tenggara are drought-affected areas. Plaintiff Wazid, for example, has had difficulty accessing water for daily living.

54. Increased extreme heat, drought, and rainfall bring changes in plant diseases and pests, water insecurity, crop failure, and food insecurity.

55. Increased extreme heat, drought, and further rainfall will severely affect Indonesia’s agriculture sector and threaten food and water security and agriculture-based livelihoods.

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54 Ministry of Environment and Forestry, “Roadmap NDC Adaptasi Perubahan Iklim,” p. 14
55 Ibid, p. 18.
58 Ministry of Environment and Forestry, “Roadmap NDC of climate Changes Adaptation,”
The IPCC projects moderate to high yield constraints for Indonesia’s rice, maize, and soybeans, mainly due to crop pests, plant diseases, and soil nutrient loss in the middle of the century. Indonesia is already suffering from crop failure due to the impacts of climate change. For example, heavy rains due to the La Nina event in 2010 caused maize production to decline by 63% compared to normal conditions. According to the World Bank, climate modeling from West Nusa Tenggara indicates that a water deficit in the first rice planting season could also impact high-value intercrops in the second season. From January to July 2019, Ministry of Agriculture data confirmed drought-related crop failures of 31,000 Ha for rice alone.

The risk of pests from insects, pathogens, and weeds will also increase in agricultural ecosystems as climate changes. For example, the IPCC notes that climate change has contributed to the recent spread of Alternaria spp and Fusarium equiseti in vegetable products. The severity of the Fusarium fungal pathogen is expected to increase with climate change due to increased weather fluctuations. Pest and weed constraints (plant-disturbing organisms) are a very high risk for the agricultural sector because interactions in ecosystems that affect pest populations make projections and early warning system becomes very difficult.

As described in Section 2.4.1, as farmers, plaintiffs Wazid and ZA experience unpredictable and extreme rainfall patterns and increases and infestation of pests. All plaintiffs will experience further impacts from agriculture, such as plaintiff Tiwi who experienced reduced access to food after the floods in Sintang. All child plaintiffs, in particular, are at a higher risk of being affected in the future, as plaintiff Rasya has feared.
**e) Tidal floods, high waves, and strong winds due to sea level rise endanger lives, cause loss of living space, shelter, food and water insecurity**

58. The latest IPCC assessment projects that global sea levels will rise by 1.2m by 2100.\(^{71}\) Sea levels will significantly increase the risk of erosion, tidal flooding, and saltwater intrusion by 2100.\(^{72}\) In a high emission scenario, without adaptation, more than 4.2 million people in Indonesia will be affected by permanent tidal flooding in 2070 – 2100.\(^{73}\)

59. Saltwater intrusion caused by rising sea levels causes loss of coastal plants, food insecurity, and freshwater insecurity for coastal communities. The IPCC found that “increased tidal flooding, coastal erosion, and saltwater intrusion are causing ecosystem degradation (very high confidence).”\(^{74}\) Indonesia has a high vulnerability to this impact, given that soil salinity is a major factor in declining food production in Indonesia's coastal areas.\(^{75}\)

60. The IPCC also finds that access to fresh water on small islands is threatened by several aspects of climate change, including the salinization of groundwater due to rising sea levels and runoff from storm surges.\(^{76}\) Indonesia’s Long-Term Strategy for Low Carbon Development and Climate Resilience of 2050 (2021) states:

*Based on data in the State Report (2017), in 2008 and 2009, sea level rise of up to 0.8 m caused seawater to penetrate coastal areas up to several kilometers in the Cirebon area with an estimated loss of more than IDR 1.29 trillion per hectare per year. Sea level rise of 0.01 m per year is also projected to flood more than 1.7 thousand hectares of the Semarang Coastal area in 2030, with an estimated economic loss of IDR 6.1 trillion. In addition, tidal events that reach 200 cm will trigger tidal flooding in the northern area of Jakarta and cause losses of more than IDR 4.7 trillion.*\(^{77}\)

[...]

*Indonesia faces the risk of losing small islands and shrinking coastal areas due to rising sea levels that will threaten cities along the coastline.*\(^{78}\)

61. Sea level will also cause historically rare extreme sea-level events, such as high tides and centennial high waves, to become common by 2100.\(^{79}\) Coastal towns and small islands will ...
experience sea-level extreme events annually by 2050. Wave heights that historically only occurred once every ten years in Indonesia could occur every 4 to 10 years in 2070–2100, even under a low emission scenario. Indonesia is estimated to have the largest population of coastal areas exposed to flooding from hundred annual storm surges, with 5.5 million to 8 million people affected by 2030; and increasing to 9.5 million s.d. 14 million souls in 2060.

In addition, the IPCC predicts that a possible increase in global temperature increases the intensity of tropical cyclones, with an increasing proportion of high-intensity tropical cyclones (high confidence).

Tropical cyclones significantly increase rainfall. For example, Cyclone Cempaka in 2017 caused 225 mm of rainfall in one day in Gunungkidul Regency, Yogyakarta, an increase of up to 750% from the historical average. When a cyclone passes over land, it causes shoreline erosion and severe damage to infrastructure (roads, railroads, bridges, power lines, communications, and coastal protection), buildings (houses, schools, and health clinics), agriculture, and forests.

As explained in Section 4.2., plaintiff DD has been affected by tidal flooding and high tidal waves caused by climate change. Plaintiffs Dewa, MB, BE and Radith also face high tidal waves annually that destroy their homes and endanger their lives in their livelihood as fishermen; and experiencing extreme weather events, Cyclone Seroja, which threatens lives, disrupts livelihoods, threatens food and water security.

Climate change causes a disproportionately higher incidence of vector-borne diseases affecting children and vulnerable populations

The World Health Organization warns of health-related risks from climate change in Indonesia, including health risks from vector-borne diseases (diseases transmitted by insects).

Even without considering climate change, most parts of Indonesia already have “very high” exposure to malaria and dengue fever. Most of Sumatra, Java, East Kalimantan, and southern Sulawesi are malaria-prone areas of Plasmodium vivax and Plasmodium falciparum. Aedes aegypti and

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80 Ibid.
82 World Bank Group/Asian Development Bank, “Climate Risk Country Profile Indonesia (2021).” A hundred-year storm surge is a flood with a 1% chance of occurrence in any given year.
88 UNICEF, The climate crisis, p. 44.
89 Ibid., p. 46.
Aedes albopictus, which spreads various arboviruses, including dengue fever, Zika, chikungunya, yellow fever, and Japanese encephalitis, is found throughout Indonesia. The potential for transmission of Aedes-borne diseases is relatively high throughout the lowlands of Indonesia.

68. Vector-borne diseases such as malaria, dengue hemorrhagic fever, and cholera are exacerbated by climate change. Global research has found that the incidence of dengue has increased thirty-fold in the last fifty years, with climate as an important cause of the distribution and incidence of dengue. Studies across Java have found climatic variables correlated with dengue hemorrhagic fever incidence. Changes in temperature, rainfall patterns, and humidity affect the reproduction and survival of mosquitoes that transmit vector-borne diseases, including malaria and dengue fever. Warmer temperatures also increase bite rates and disease transmission. Increasing temperature is associated with a reduced incubation period of mosquito viruses, leading to higher populations, faster egg laying, and changes in feeding habits.

69. At least 308 million people (out of a projected 340 million population) in Indonesia could be at risk of contracting malaria in the 2070s. With rising temperatures, the disease spreads to higher ground, exposing communities that may not have adopted practices to protect themselves and their children.

70. As explained in Section 4.2.1, plaintiff MA suffered from dengue fever at seven, which could be fatal and disrupt his school activities. Plaintiff RX also had dengue fever during his school days. Plaintiff DD has malaria and witnessed her younger sibling suffering from malaria that recurs yearly. Plaintiff Wazid witnessed an outbreak of malaria in his area of Lombok, which was declared an 'extraordinary event' [by the local government].

71. Indonesia is one of the high-risk countries in the world in terms of children being affected by climate change, including vector-borne diseases, air pollution, and coastal flooding. Indonesia is ranked 46th out of 163 countries on the Child Climate Risk Index of UNICEF 2021. In addition, the food crisis also has a more severe impact on children, increasing the risk of malnutrition and stunting.

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90 Ibid., p. 47.
91 Ibid.
92 Ibid., p. 3; World Bank Group/Asian Development Bank, “Climate Risk Country Profile Indonesia (2021).”
95 UNICEF, The climate crisis, p. 43.
96 Ibid.
97 Ibid.
72. Children are more susceptible to dengue fever because their immune systems are weaker than adults, and they can be exposed at school in the morning and while playing outdoors in the afternoon. In a 2019 study in Cirebon, most Dengue fever cases occur in school-age children, and disease rates increase with increasing temperature and humidity.

73. Children are also exposed to a higher risk in flood conditions. Children, even those who know how to swim, are at risk of injury and drowning due to strong currents and debris in the water. Children are particularly at risk of being hit by strong currents in floodwaters because they do not have the strength to remain to stand, even in shallow water. Floods also disrupt water supplies, increasing the risk of diarrheal outbreaks leading to malnutrition and dehydration. Flooding can also prevent children from accessing health and education services. Children frequently affected by floods are more likely to be stunted and have an underweight body.

74. Besides physical impacts, climate change is linked to acute and chronic mental health problems. Mental health professionals have identified various conditions and symptoms associated with experiencing extreme weather events, including depression, anxiety, post-traumatic stress disorder, increased drug and alcohol use, domestic violence, and child abuse.

75. Children and youth are especially vulnerable to developing mental health conditions due to climate change. Not only do they suffer acute psychological harm from experiencing current climate impacts such as natural disasters, but they also face chronic psychological burdens triggered by acute events, disasters that cause slow-moving, and persistent awareness of the current and expected impacts of climate change.

76. Children and adolescents are also prone to developing “climate anxiety,” whereby “habitual ecological concerns” about impending climate-related disasters can “evoke dramatic reactions, 

101 Ibid., p. 79.
104 Ibid.
105 Ibid., The climate crisis, p. 37.
106 Ibid.
107 Ibid.
108 Ibid.
110 “[C]hildren ... are at risk of developing PTSD and other mental health problems like depression, anxiety, phobias and panic, sleep disorders, attachment disorders, and substance abuse... In addition to diagnosable mental health problems, other psychological effects of traumatic experiences in climate-related disasters and their ensuing disruptions can include negative impacts on children’s capacity to regulate emotions, increased cognitive deficits, learning problems, behavioral problems, adjustment problems, impaired language development, and an undermining of academic performance.” See: Susie E. L. Burke, et al., “The Psychological Effects of Climate Change on Children,” Current Psychiatry Reports, Vol. 20, No. 35 (April 2019), p. 2.
111 American Psychological Association, Mental Health, and our Changing Climate, p. 22.
such as loss of appetite, sleeplessness, and panic attacks.” Psychologists report that stressful and repetitive early life events that are “perhaps in the context of climate change” can create “predispositions to adverse mental health outcomes later in life.” Concerns about future climate-related impacts can interfere with childhood development and have lifelong consequences, making children more susceptible to conditions such as anxiety and depression in the future.

77. Plaintiffs MA, J, and Rasya, are all children who, in their lifetime, will be exposed to more climate impacts as described above than previous generations. In addition, all are vulnerable to growing awareness about the impacts of climate on their future, which can impact mental health. For example, Plaintiffs Rasya and J have felt concerns about climate change and perceive a dark picture of its future.

4.2. Climate Change has exposed plaintiffs to life-threatening hazards, health risks, food and water insecurity, and disruption to their education and livelihoods.

4.2.1. Plaintiff MA (6)

78. MA was born in Samarinda in November 2014 and moved to Bogor to follow his father. MA has never experienced a good and healthy living environment since his birth. Born in Samarinda, MA grew up with flooding – mainly due to land use mismanagement – as an annual routine during the rainy season. MA experiences more intense extreme heat in the dry season than the previous generation.

MA has experienced the hottest days in the province of East Kalimantan, with heat reaching 35.6°C in December 2015 and at some point reaching 42°C in 2016. In 2019, when MA’s sibling was aged six to eighteen months old, the average monthly temperature of the City Samarinda was in the range of 29°C to 30.3°C, with a maximum temperature of 37.2°C. Children under one year of age are particularly vulnerable to heat waves. Infants and young children are more likely to die or suffer from heat stroke because they are unable to regulate their body temperature and lack the ability to control the surrounding environment. Even though MA endures these hot days well, he and his sibling have been exposed to the risk of extreme heat that can be deadly.

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117 UNICEF, The Climate Crisis, p. 27.
118 Ibid.
When relocating to Bogor, once again, MA experienced a relatively fatal disease for children their age: dengue hemorrhagic fever. After more than two years of experiencing distance learning due to the pandemic, MA has been very excited to return to face-to-face activities at his school since early March 2022. However, after only a month of returning to school, in April 2022, MA suddenly had a high fever. Laboratory tests confirmed that MA had dengue fever – MA’s platelet level was very low, and he had to be hospitalized. “At that time, he was really upset because he couldn't play futsal with his friends, which were scheduled for that afternoon – even though he had been ordered to be hospitalized, he insisted that he wanted to join the practice. And when it was the month of fasting, when he was being treated, he even asked, “do I skip the fasting, Baba?” recalled AS, MA's father. However, MA was most sad because he had to be absent from school for one week. “The thing that annoyed him the most was that he couldn't play with his friends. The face-to-face school was just started, then he got DHF,” continued AS.

MA is fortunate to have access to adequate health care. Even though a rapid increase was hitting Greater Jakarta in dengue cases, his family had private insurance that allowed MA to obtain a hospital room with good service. MA’s mother took time off from her work to accompany MA during hospitalization. Moreover, MA contracted DHF when the COVID-19 curve in Bogor was already sloping, so he didn’t have to struggle to obtain a room amid a crisis in the availability of treatment rooms and health workers. Even though MA's heat reached 40ºC, after being hospitalized for one week, MA was able to recover and return to his school activities.

Even though his family has kept their house from puddles and actively eradicated mosquito larvae, MA's father was well aware that weather factors will determine the presence of dengue fever mosquitoes. Without an adaptation program from the government, “Finally, we are now fogging our residences cluster independently, buying our fogging equipment collectively with our neighbors,” MA's father explained. This is quite a dilemma, considering that children are more susceptible to toxic chemicals. 119

From early 2022 to mid-May 2022, the Bogor City Health Office recorded 563 cases of dengue hemorrhagic fever, the third highest prevalence in Indonesia. 120 This figure has jumped rapidly compared to 2020 (89 cases) and 2021 (118 cases). Until June 2022, the Ministry of Health recorded 45,387 cases of DHF throughout Indonesia, with the number of deaths reaching 432 cases. 121

In 2030, MA will only be 15 years old, while MA's younger sibling will be 13 years old. This year, their outdoor activities will be significantly limited by extreme heat, the risk of exposure to coastal and river flooding, and the increased risk of vector-borne diseases. In 2050, MA will be 35 years old, and MA's sibling will be 33. This year, if they live in a coastal city, they will face extreme sea-level events with a much higher frequency than their historical frequency, even

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it is likely to happen every year. They need to care for the elderly who face heat-related health risks that have increased 12-15 times over the decade they were born. They will face a food crisis caused by declining fish stocks at sea and crop failure due to floods, droughts, or pest attacks on land. In 2100, should MA still lives, he will be 85 years old, and MA’s sibling is to be 83 years old; both of them would be struggling to deal with extreme weather and unimaginable basic needs daily.

4.2.2. Plaintiff J (11)

J lives in Jakarta and is attending 5th-grade elementary school in Mampang, Jakarta. Even though he grew up in a middle-class family, the effects of the climate crisis are inevitable for him because of his physiological vulnerability as a growing child. Since his birth until now, J has experienced Jakarta with hot days that are more frequent and intense than the previous generation.

Jakarta is becoming hotter due to climate change. The annual number of hot days in Jakarta increased between 1986 and 2014, and the “urban heat island” area of Jakarta (local area reaching more than 30°C) increased rapidly between 2008 and 2018. The BMKG confirms that Jakarta is indeed becoming hotter – Jakarta’s average air temperature in 2021 was 0.4°C higher than the 1981 to 2010 average. The increase in Jakarta’s daily maximum temperature is even higher than the increase in the average and minimum temperatures. The trend of increasing minimum temperature has been stronger over the last 50 years. Compared with the previous decade, nighttime temperatures rose the most since 2001.

Projections suggest that the heat differential between the city center and surrounding areas will increase, increasing the relative health risks for the poor and vulnerable city dwellers.

Entering the transition season of 2022, J’s mother was becoming increasingly worried because Jakarta was experiencing hotter temperatures than usual, with the maximum temperature in June 2022 reaching 34.6°C. With the increasing temperature in Jakarta, where J resides, J is more often sensitive to heat and dust. Sometimes he feels sick, and his parents take him to the doctor, even though his condition has not been diagnosed. J will continue participating in teaching and learning activities when sick, sometimes by asking permission to turn off the camera. J doesn’t like his vulnerability – once, J cried to his mother and asked, "Mom, what’s wrong with me?"

127 Ibid.
128 Ibid.
130 The data was processed from the results of BMKG monitoring at the Kemayoran Meteorological Station, June 1, 2022, until June 30, 2022, accessed at: BMKG, “Online Data Center Database - BMKG,” https://dataonline.bmkg.go.id/data_iklim, accessed on 10 July 2022.
Not only is it scorching hot during the day, but Jakarta’s weather is also very erratic. It is sometimes interspersed with heavy rain after scorching heat, making children J’s age more susceptible to heat rash and heat-related cramps, fatigue, and heat stroke. Children are also more susceptible to vector-borne diseases such as dengue fever, which is increasing with climate change. These diseases will all become more frequent and widespread in line with rising global temperatures and increasing weather anomalies.

J also learned various information about the climate crisis from an early age, including through lessons at school that discussed climate change and deforestation. At a very early age, J knew that the earth would be hotter when he grew up and extreme weather would be more frequent. At an early age, he heard far more stories of disasters – mostly hydrometeorological disasters related to climate change – through news, social media, and stories of affected friends.

Since J was born in 2011, Indonesia has witnessed a rapid increase in floods, landslides, cyclones, extreme weather, tidal waves, and abrasion. J has watched 9,225 floods in Indonesia; 6,737 landslide events; 9,242 tornadoes and extreme weather; and 341 tidal waves and abrasion, all of which increased rapidly in 2019 and 2021. Compared to J’s birth year in 2011, in 2021, the incidence of flooding has more than tripled; the incidence of landslides has more than quadrupled; cyclones increased by more than 3.5 times; tidal waves and abrasion increased almost 5.4-fold.

This knowledge, combined with J’s physical vulnerability, leaves him with a pessimistic outlook on life. When J’s mother asked how J would deal with climate change in 2100, J replied, “I’m not sure I am going to live that long. It’s very unlikely.” He told his mother that he was afraid of death if he had to deal with the increasing frequency of extreme weather.

However, J has also partaken in various actions to convey his aspirations since childhood. He often donates some of his savings from his piggy bank for disaster donations. He also regularly participates in climate demonstrations in the hope that his voice can be heard by policymakers so that the environment in which he lives will be more suitable because of his belief that he can be healthier if he lives in a good environment. In J’s point of view, the government seemed to be doing nothing to protect its generation.

In 2050, J will only be 39 years old – a time when J will not only take care of himself or his immediate family but also protect his aging parents from the effects of climate change, such as extreme heat. This year, heat-related deaths in the elderly at the peak of the dry season in Jakarta (August) are projected to increase 12 to 15 times from 2010 to 2050. Jakarta, which is a coastal city, will also experience an increase in the vector capacity of dengue hemorrhagic fever in 2070, which is also predicted to worsen during el-Nino.

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131 The data is processed from the disaster statistics of BNPB 2008-2021, among others accessed from BNPB, Indonesia Disaster Data 2017, (Jakarta: BNPB Data, Information, and Public Relations Center, 2017); BNPB, 2016 Indonesian Disaster Data, (Jakarta, BNPB Data, Information, and Public Relations Center, 2016).
In 2100, J will be 89 years old. If J lives long, he will witness a severe climate catastrophe due to his generation's long period of impact exposure. Science predicts that this year J will face days with heat of more than 40°C, as many as 20 days a year,\(^\text{134}\) which can be fatal for the elderly. Compared to the generation of his father and mother, the impact that must be borne by J – whose contribution to climate change is very minimal – is more disproportionate than the impact that the previous generation must bear.

4.2.3. Plaintiff Rasya (15)

80. Fifteen years old Rasya was born and grew up in Jakarta, relocated several times following her mother and father in pursuing their education. He now returns to reside and attend school in Jakarta. Since childhood, Rasya grew up with various facts about climate change from interactions with his family and school and exposure to extreme weather events that are far more frequent and intense than in previous generations. Rasya experiences the psychological impact of climate change: worries about the food crisis, sadness when imagining the future, and feelings of frustration and confusion when faced with a world that does not pursue a safe climate. Rasya is one of 79.55 million Indonesian children under 18,\(^\text{135}\) whose rights as children have been and will be increasingly affected by climate change.

In 2006, Rasya was born into a prosperous family. Rasya's family ensures that Rasya gets a quality education, a safe family environment, nutritious food, and access to proper health care.

However, Rasya was born in a rapidly changing environment. The year Rasya was born, 2006, was the year when the earth warmed by 0.54°C.\(^\text{136}\) In 2015, when Rasya was nine years old, the world experienced the strongest el-Nino in history, which can only be compared to the 1998 el-Nino. From 2006-2015, Human activities have added global heat by 0.87°C compared to pre-industrial times. Now, at the age of 15, Rasya is witnessing the world has warmed by 1.1°C – and at this age, Rasya has lived with the understanding that it is likely that in the next decade, the world will pass a global average temperature increase of 1.5°C.

Rasya has very rich knowledge about climate change. Since childhood, Rasya's mother, who works in the environmental field, has often involved Rasya in discussions on climate change. In 4th grade 4, Rasya began participating in various workshops and discussions on climate change at his school. Last year, when Rasya was in the 10th grade, Rasya did at least ten homework regarding environmental changes. "I feel quite knowledgeable about climate change." And this knowledge is not unique merely to Rasya, "My friends are also quite comprehending regarding this matter."

However, understanding the facts of climate change has unique consequences for Rasya and her peers. "Because I was so worried about environmental changes,


So, I have been having panic since I was little." Rasya knows that climate change will cause a food crisis, "I feel affected. I am worried that the impact of climate change on agriculture will make it very difficult for us to maintain a normal life." Normal things such as the affordability of rice, which Rasya knows will face the risk of crop failure and more severe pest attacks due to climate change, make Rasya anxious. “I eat rice daily. For me, hot rice is the best!” However, he wasn't just worried about himself, “At some point, rice will be tough to come by. Even though rice is important for many people, the impact must be very heavy.”

Living with climate change also overshadows Rasya's generation with dark shades about the future. “Whenever I see news such as more frequent droughts and extreme weather due to climate change, I get really worried. Right now, it has been really bad. It's hard for me to imagine how often these effects will happen when I grow up.” There was a feeling of sadness in Rasya's vision of the future, "I can't help but feel a little sad for myself in the future, or for the people in the future, even though I know something can be done." This feeling of helplessness is sometimes exacerbated by the lack of action taken by parties that supposedly can enforce meaningful change, “At one point I was very frustrated and confused why people, why the government, didn't try to change this condition. I'm feeling desperate.”

At a fairly early age, Rasya has learned to manage his worries and anxieties. “Climate anxiety often occurs when I look at a fact and think, oh no, what happens when I grow up! At one point, I reflected on this experience and realized it might be anxiety – I was so worried about something that hadn't even happened. I’m figuring out what I can do, how I can manage it.” Rasya finds peace in his hobbies – reading and knitting. He finds he can channel his anxiety when he learns the facts of horrific environmental damage by more carefully understanding the environmental consequences of his actions. For example, Rasya tries not to use air conditioning too often because “The majority of the electricity we use doesn’t come from good places – we don't even have the option to use renewable energy.” Although Rasya understands that his actions will not have a massive impact, “By doing these small things, make me feel better. I hope that what I do can help the earth and remind others that we can choose not to do anything destructive.”

Rasya's concern about climate change also plays a big role in his dream, “I will try to become an environmental lawyer like my mother. I want to try my best when I feel anxious.”

In 2050, Rasya will be 43 years old. When imagining his life 20 years from now – in 2042, when she will be 35 years old – Rasya has calculated the climate impact projections quite accurately, “The climate may already be crazy. The impact of agriculture is much worse than now. Maybe before 2042, there will be an economic crisis. Some places are already uninhabitable, so maybe some people have had to migrate to places that are more supportive of life. Access to clean water seems to have become very difficult.” As described in Section 4.1., Rasya's concerns are supported by scientific evidence. However, Rasya hopes that this complaint can have an impact on realizing a future with a safe climate. “I've always felt helpless since I was a kid. And
I don't believe that I can do anything. But with this opportunity, I can partake in something that impacts me.”

4.2.4. Plaintiff RX (23)

For RX, his college years in Malang improved his quality of life. "No traffic jams, the sky was blue, clean air, trees were everywhere, the mountains were many and still preserved, and the beaches were clean." RX's transition from home life to independent living in a boarding house when he was 18 was relatively easy, even memorable for young RX. RX was also grateful that he feels safe in Malang, even though during his time in college, there have been so many hydrometeorological disasters throughout Indonesia – which he remembers by numerous donations for disaster victims circulated in his classes.

In RX's last year of college, when preparing his thesis, Malang was affected by flash floods that hit the upstream area around Batu City, which is only 17 km from Malang city center. On November 4, 2021, heavy rain accompanied by strong winds hit Batu and Malang cities. Batu City, located downstream of the river that flows into Malang, experienced 2.5 hours of rain with an intensity of 80.3 mm, which BMKG called 'extreme weather.' This flash flood claimed seven lives, damaged 35 houses, submerged 33 other houses in mud, damaged 73 motorbikes and seven cars, washed away 107 livestock, and damaged ten cattle pens. There was no warning from the government. The Mayor of Malang also stated that he did not expect a flash flood of that magnitude to occur in Batu and impact Malang.

Even though his boarding house was not submerged that day, RX could not leave the boarding house because road access was very difficult due to the many flood points. Mobile data access was severely compromised. RX was lucky that day he was at the boarding house. During the flood, until a week later, access to clean water at RX's boarding house was disrupted. To shower, RX had to stay at a friend's house, which was 1km from his boarding house, without knowing how long the water disturbance would last. RX managed all these impacts alone without telling his family in Jakarta, "My family will be worried and panicked if I tell them, so I try to manage it myself," he said.

In addition, in flood-affected areas, diseases started to appear. RX was lucky not to have contracted any disease after the flood, including not being re-infected with dengue fever and repeating his junior high school experience where he contracted dengue hemorrhagic fever just in preparation for the national exam. In the past, for almost two weeks, RX could not participate in teaching and learning activities at school due to being hospitalized.

Flash floods in Batu City welcomed RX into adulthood. He felt that his concern about climate impacts, which he had understood from lectures, documentaries, and various community activities he participated in, was validated by flash floods, "Let's not talk too far to 2030. It's already in sight. What we thought of yesterday is happening right now."
The validation continues along with the events RX has experienced: "As a person who is allergic to dust and has sinus symptoms, I am affected by various allergens in the air. And I remember learning that dust, pollen, allergens, and other pollutants in the air were really made worse by the climate crisis. Even without climate change, it was already hard to manage the air, let alone with the climate change." Most recently, in mid to late June, when Jakarta’s air pollution was getting worse due to meteorological factors, he developed a significant swelling of the turbinates (the inside of the nose), which he had never experienced before. Swelling of the turbinates is caused by allergies, sinusitis, and irritation from air pollution, which will be exacerbated by climate change.

RX also observed the spike in chili prices due to La Nina and crop failure, “I really like chili sauce, and it saddens me to think how long I could afford this with the price that may continue to rise every year.”

While always looking upbeat, RX has a picture of a dark future heavily influenced by his knowledge of the climate crisis. RX’s expectations for the future are simple, “I just want to live in a decent place. The basic resources – food, water, energy, air – are available and affordable with a safe and stable climate.” However, in RX’s perception, that will be a difficult goal for him to achieve. Environmental damage, price spikes, disruption of the availability of basic commodities, and energy vulnerability made RX clueless about where he wants to reside in the future, "Why bother buying a house if all places will be affected by climate change."

The loss of meaningful places for RX, worries about the increasingly unpredictable weather, and especially the health effects, made RX sometimes feel hopeless and pessimistic about his life, “At one point I thought, if indeed [the climate crisis] will happen, well then let it be. It’s just that I don’t want to live long. Maybe, with me being gone, the remaining resources can be utilized by those who need them.”

RX often manages his fears by making satirical jokes, such as when explaining his thoughts on offspring, “I know for sure I won’t be able to give what I gained now [to the child]. It seems unfair to the child. It’s sad when I say to the child, “welcome, this is a climate crisis, it used to be a beautiful place. But now, can you please find a solution?” This is inseparable from his awareness that “In 2100 if the earth warms up to 4°C, there could be daily disasters. Could you think how my child would live in such a place?”

In addition to worrying about his future, RX also worries about people’s lack of understanding and concern. “Education about the facts of the impact of the climate crisis is still very low, even though education is one that allows adaptation capacity, right? How are you going to survive if you don’t have the knowledge? I feel that there is an inequality of knowledge between those who understand and those who do not. However, the government has that knowledge.” RX always attempts to talk to the groups he is most concerned about, such as online transportation drivers and street vendors who “have to be exposed daily to heat which will only get worse, but that is part of survival.” However, RX felt “a little more dispirited when they found out they had been misinformed.”

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He is also worried that he will face challenges and obstacles in caring for his parents during the increasingly severe climate crisis.

RX still feels that a decent environment and a safe climate are choices he can influence today. However, "The closer to 2030, the more skeptical I will be."

4.2.5. Plaintiff Wazid (24)

Twenty-four years old, Wazid was born and grew up in Sembalun, Lombok Island, West Nusa Tenggara. Raised in a farming family in a farmer’s village, Wazid cultivates a 1-hectare garden completely dependent on rainfall. The unpredictable seasons make Wazid's cropping cycle also inconsistent. Droughts in certain years threaten crop failure, and long rainy seasons make pests more virulent, increasing dependence on pesticides. Wazid is one of the 33.4 million Indonesian farmers whose right to a proper livelihood has been affected by climate change. However, Wazid is also facing a food crisis that will strike Indonesia, affecting the right to food of all other Plaintiffs and all Indonesian people.

Wazid was born in Sembalun – where the entire population depends on farming. A year after the 1998 drought, little Wazid watched his mother and father grow various foodstuffs in his family garden: chilies, tomatoes, and vegetables. From helping out in the garden, he gained knowledge about spacing, installing and perforating plastic and mulch to protect soil moisture and plants from strong winds, season-wise planting seasons, and pest treatment. Now, together with his five brothers, Wazid makes a living from farming, supporting his 58 years old mother, and retired from farming. Wazid cultivates a 1-hectare garden in Sembalun Lawang, about 2 km from the house where he lives.

Agriculture in Sembalun is completely dependent on rainwater, so it is vulnerable to seasonal shifts that are now becoming more frequent. From his childhood experience, Wazid recalls, "November, December is the longest time for planting, and usually the rainy season lasts six months. We used to be able to plant twice a year. For vegetables with three months old age span, they can even be planted 2-3 times."

Now, every year seems to require a new cropping cycle for Wazid and other farmers in Sembalun. "What we feel, we can't predict summer and rainy season – it's really disrupting our agriculture."

In 2019 and 2020, Lombok experienced a water crisis that caused crop failure in many areas.¹⁴¹ "2020 was a long dry year in Lombok. We can only be patient, hoping for water for our garden because it is worthless for us to plant. The most we can do is move to a farm in the moist fields." In 2020, Wazid was "not expecting too much" from his garden yields and optimizing planting in paddy fields.

On the other hand, this year, extreme rainfall led to more virulent pests, forcing W to rely more on pesticides. Wazid's experienced the worst attack in 2022 when Indonesia experienced La Nina, resulting

in a longer rainy season. “Now I spray [pesticide] almost daily to protect [plants] from pests. Planting and maintenance costs are very expensive, while middlemen control prices,” said Wazid, who admitted that he did not know how much pesticide fees would be charged by middlemen who provided him with various farming equipment.

In recent years, Wazid has become increasingly bewildered because the weather has become increasingly uncertain. “Sometimes, even during the rainy season, there is no water. On the other hand, in certain years, it still rains in June, and this causes many chilies to fall out.” For farmers, the reduced supply of chili means a more reasonable price – as in May – June 2022, where Wazid can earn Rp 35,000.00/kg. However, for Lombok residents, the scarcity of chili means skyrocketing prices for necessities, such as chili – a very important cooking ingredient for Lombok cuisine – skyrocketing to IDR 100,000/kg.142

Wazid’s story shows how climate change adds to the pressures experienced by Indonesian farmers. Wazid’s opportunity to solve environmental problems at the local level and get better prices becomes much more challenging with climate change in sight. The threat of shifting seasons, drought, and pests that have been experienced does not fully reflect the threat of climate change. For example, Wazid has not yet had to manage hail, which has never happened in his garden but has happened in the higher hills of Sembalun.

Drought in Sembalun impacts agriculture and worsens the availability of Sembalun’s clean water for drinking water and domestic purposes, which had previously been under scarcity due to earthquakes, land conversion, and conflicts with tourism.143 “Our water comes from springs, which until 2015 is still very abundant. After the 2018 earthquake, only 1-2 springs are still open, but the discharge is not what it used to be. Now, people are fighting over water at the springs; many have even drilled wells because they can no longer rely on springs.”

4.2.6. Plaintiff DD (26)

83. Twenty-six years old DD was born and raised in Biak. Now working in Jayapura, she is one of the residents of the north coast of Papua who suffered damage to their homes and property due to high waves, strong winds, and tidal flooding in January 2022. Born from a family practicing a subsistence way of life, DD feels climate change threatens her opportunities to learn his cultural identity and limits his choices should one day he desires to practice subsistence living according to his customs.

On January 6 – 9, 2022, a storm hit the rented house from the office where DD lived in Jayapura City. Heavy rain accompanied by strong winds started to hit Jayapura on January 6, 2022, with rainfall that day reaching 59.1 mm and a maximum wind speed of 25.2 km/hour,144 causing damage to the tin roof of DD's rented house. Heavy rains continued and reached their

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143 Fathul Rakhman, "Berebut Air di Lembah Sembalun,” https://www.mongabay.co.id/2020/09/05/berebut-air-di-lembah-sembalun/, accessed on 10 July 2022
peak on January 9, with rainfall reaching 135.4 mm.\textsuperscript{145} BNPB recorded that this storm claimed seven lives, forced 248 people to evacuate, and damaged 1,927 houses and various public facilities.\textsuperscript{146} One of the broken houses affected by this storm was DD’s house.

After the storm subsided, DD arranged to repair the roof of his rented house, costing Rp 1.5 million. Not only DD, her office mates, and almost everyone DD knew also suffered the same damage. DD learned from his colleagues that many economically weak communities could not repair the damage to their roofs after the storm, mostly indigenous Papuans. Not only physical damage to houses but physical damage also occurred at DD’s office, an English language education institution, which resulted in student classes being postponed until repairs were completed.

Shortly after the storm that hit Jayapura, at the end of January 2022, DD family’s house in Wardo, Biak, was hit by high waves as high as 2.5 to 4 meters. Sea water entered the farthest part of the house from the shoreline. The house passed down from generation to generation is now under DD’s responsibility, and even though DD doesn’t live there, DD’s aunt and grandmother, who live in the house, panicked and called DD and her mother, telling them about the accident and asking for help. That night, DD and her mother had to arrange for the evacuation of her aunt and grandmother to another family’s house in the mountains. This incident coincided with the BMKG’s early warning regarding the “potential for very high waves” caused by wind speed.\textsuperscript{147} After the high waves and flooding subsided, DD found that the foundation of her house was leaking, and the tin roof of the house was badly damaged. DD was forced to arrange for the floor demolition for later re-casting and repair, which cost Rp 5 million.

Throughout December - January 2022, the north coast of Papua experienced several high waves and tidal flooding. Almost all families living in houses along the north coast of Papua have the same fate as DD, with the cost of damage being borne by each family without having been documented by BNPB or BPBD. Some coastal residents opted to leave their homes and relocate to safer locations, including practically all of DD’s neighbors who had relocated to higher ground. Climate change will cause more damage to the coast, as DD experienced.

Not only housing damage, but DD has also suffered from malaria, which is already prevalent in Papua. DD also witnessed his sister experiencing malaria, which recurs annually. As explained in Section 4.1., the risk of malaria and other vector-borne diseases will increase with climate change. Changes that follow disasters, such as destruction of infrastructure, contaminated drinking

\textsuperscript{145} Ibid.
water leading to emergency water storage, and people sleeping in temporary outdoor shelters, can also increase exposure.\textsuperscript{148}

4.2.7. Plaintiff Zulya Pratiwi (29)

Twenty-nine years old Tiwi lives and works in Baning Kota, Sintang Regency, West Kalimantan. Tiwi was one of 109,370 residents of Sintang Regency who were affected by the Sintang flood, which lasted for 4-6 weeks, killing two people and submerging 21,000 houses.\textsuperscript{149} The prolonged flooding threatened Tiwi's health, making it difficult for them to access water, sanitation, and nutritious food. It also caused difficulties for Tiwi to do her job, and significantly reduced the quality of the environment where Tiwi resides.

In early October 2021, Tiwi started to hear from her relatives and colleagues that various areas in Sintang were beginning to be flooded. In mid-October, the floods started to get bigger and impacted Tiwi access. Ever since Tiwi has lived surrounded by floods for up to a month.

From the end of October to the end of November 2021, various areas in Sintang Regency were inundated by prolonged flooding. Cumulative rainfall from the end of October up to early November 2021 reached 294 mm,\textsuperscript{150} of which the BMKG classified as extreme rain.\textsuperscript{151} This flood was the widest and longest flood that Sintang had experienced since 1963.\textsuperscript{152} The impact of the flood was also experienced in Baning Kota – where Tiwi lives and works.

Even though her house was not flooded, for more than four weeks, Tiwi was surrounded by floods that altered her daily life. The main access she had to her daily routine was completely paralyzed by being submerged in knee-deep water for at least a month. Access to markets and hospitals was cut off. Motorboats replaced motorbikes, cars, and public transportation as the only transportation used to move places.

During the floods, Tiwi witnessed clean water and commodities becoming scarce and expensive. Tiwi feels lucky because access to water in her house was not cut off. Still, in the soup kitchen, she assisted in mobilizing aid to ensure clean water was available and could be distributed to points where water access was completely cut off. There was only one option for drinking water: gallons of bottled water, which was unavailable during floods. The drinking water sold in shops or minimarkets ran out, and volunteers had to mobilize the supply of bottled water from outside the city. Most of the drilled wells that were the water source for the domestic needs of the residents of Baning Kota and Sintang City were submerged, so access to clean water must be mobilized from the non-affected wells.

In the soup kitchen, Tiwi and her team attempted their best to maintain food nutrition for flood victims. However, Tiwi had to improvise with the high price and limitation of food materials. The availability of rice relies on aid. At one point, the potato price reached Rp. 700,000.00 per sack (15 kg). Tiwi had to travel

\textsuperscript{148} UNICEF, The Climate Crisis, p. 43.
\textsuperscript{149} BNPB, Indonesia Disaster Data 2021, (Jakarta, BNPB Data, Information, and Public Relations Center, 2021), p. 102.
\textsuperscript{152} Ibid.
to less affected areas to be able to buy eggs, which were up 250% off the normal price. The usual price for chicken was IDR 30,000.00 to IDR 35,000.00 per kg, which increased to IDR 50,000.00 per kg. Fresh sea fish vanished from the market. Only fresh water and non-fresh seawater protein were available, even at twice the normal price. Limited vegetables could be obtained – only kale and bitter gourd were constantly available during floods. Meanwhile, spinach, celery, and other green vegetables were hard to obtain. Kitchen spices such as shallots and garlic and dried fishery products such as salted fish were also scarce. Several months after the flood subsided, scarcity and high prices still occurred. Even though she could still access basic commodities, Tiwi’s personal expenses soared to fulfill minimal nutrition with minimal food diversity.

Even after the flood receded, Tiwi’s life did not immediately return to her previous life. Environmental and health problems were then apparent after the flood receded. From the news and the information of her colleagues and family, Tiwi knew that skin diseases, diarrhea, and vomiting occurred along with the emergence of garbage previously submerged or carried away by the flood. Areas not affected by floods became illegal dumping points for untransported waste during the flood. After the garbage trucks returned to operation when the flood receded, the pilling garbage emitted a bad odor and was swarming with flies and maggots. Half the street was covered in pilled-up garbage at one point in the densely populated center. Items damaged by the flood – televisions, cupboards, mattresses, sofas, clothes – were scattered on the streets, emitting unpleasant odors and attracting mosquitoes. It took months for the Baning Kota garbage collection fleet to restore the cleanliness of the streets to their original state. Even though she only experienced itching for 2-3 days during the flood, Tiwi felt the threat to environmental health for weeks even after the flood subsided.

Even though various factors contributed to the flooding experienced by Tiwi, climate change will exacerbate the risk of flooding, especially in West Kalimantan, which is predicted to experience an increase in rainfall. The World Health Organization (2015) projected that by 2030, an additional 269,600 people in Indonesia might be threatened by river flooding yearly due to climate change. 153 Floods cause deaths from drowning and indirect health impacts related to food production, water availability, ecosystem disruption, outbreaks of infectious diseases, and vector distribution; in the long term, including post-traumatic stress and displacement. 154

4.2.8. Plaintiff ZA (36)

85. Born to a farmer’s father who is still working in the fields, ZA always aspires to make agriculture one of his sources of livelihood. For ZA, farming is not only an alternative livelihood to fulfill their basic needs, but also has a spiritual and social aspect, “What is sown, that is what is reaped.”

The pandemic allowed ZA to realize his old dream. At the end of 2019, ZA began to prepare for his first agricultural business in his hometown in Tlogosih Village, Demak, Central Java. After considering the balance between the capital and the

154 ibid.
commodity's selling price; he decided to plant shallots on the 0.25 hectares of land he rented. However, it was a very risky time for ZA to start a career as a farmer. Each year brings a new pattern of seasons and its own challenges. In the new year 2020, high rainfall in Demak contributed to the overflow of rivers.\textsuperscript{155} ZA's garden, near a dam built to maintain water availability in Demak, was flooded, and the flood did not subside for over a week. ZA's first onion crop, which was 50 days old and ready to be harvested in the next five days, was gone. The Department of Agriculture and Plantation of Central Java Province noted that from December 2019 to January 2020, at least 5,722 hectares of agricultural land were inundated due to “extreme weather,” 154 hectares of which were confirmed to have failed to harvest.\textsuperscript{156} “At that time, shallots price fell because what was being sold in the market were shallots harvested after the flood. Very few good quality shallots were available,” said ZA.

In early 2021, ZA decided to relocate its plantation to minimize the risk of flooding. However, the longer rainy season due to La Nina this year has increased fungal pests that attack plant roots – known to Demak farmers as “trotol” or by the scientific community as fusarium. As a result, 80\% of ZA's third crop was of very poor quality due to fungus. The shallot that was successfully harvested was undersized. "The planting capital was around Rp. 20-25 million, for that harvest, we could only obtain Rp. 5 million, excluded pruning costs," said ZA. In June 2021, ZA replanted and again lost money because of the armyworm pest.

The existence of fungi and armyworms is strongly influenced by temperature and rainfall factors, and climate change accelerates the spread of these caterpillars. First detected in Indonesia in March 2019, the armyworm has spread to 12 provinces in just four months.\textsuperscript{157} This attack can cause massive losses, as experienced by 7,889 Ha of corn fields in 18 districts in NTT in the 2020 rainy season.\textsuperscript{158}

The increase in pests and weeds has forced ZA to rely more and more on chemical pesticides. “In the beginning, I used natural pesticides. But indeed, the situation forced the use of chemical pesticides because neighboring fields will increase the use of pesticides along with pest attacks. If it is wet during the rainy season, fungicides and pesticides will also increase. This is a difficult cycle; the more people spray it, the more resistant the pests are, and the more you have to increase the pesticide dose or switch to a new drug,” ZA explained.

Since he started his career as a farmer, ZA has encountered floods, pests, and drought.\textsuperscript{159} Although ZA has acquired good prices because he is not affiliated with

\textsuperscript{156} This figure only includes rice commodities, while data on shallot commodities cannot be found. See: Bowo Pribadi, “Lahan Puso Akiat Cuaca Ekstrim Dapat Asuransi Rp 6 Juta,” \url{https://www.republika.co.id/berita/q458kl370/lanah-puso-akiat-cuaca-ekstrim-dapat-asuransi-rp-6-juta}, accessed on 10 July 2022
middlemen, the climate is beyond ZA's control. In 2022, ZA decided not to plant onions because the 2022 rainy season was still affected by La Nina, so he swapped commodities by planting green beans. ZA sees that the onions in his neighbor's fields are now heavily attacked by fungi, and his green beans – even though they are safe from pests – have yet to bear fruit until now.

4.2.9. **Plaintiffs M. Mansur Dokeng (‘Dewa’) (39), MB (59), AS (45), and Radith Giantiano (29), representing fishermen and coastal communities of Kupang City affected by Cyclone Seroja**

86. For Dewa, MB, BE, AS, and Radith, the coast of Kupang City is their home, their source of food, their source of livelihood, and also a recreation place. Dewa lives in the Oesapa Fisherman’s Village and has been fishing since he was a child and fisherman for the past twenty years. MB, who lives in Air Mata Village, also goes to sea and earns his living as a fisherman for the rest of his life. BE, who lives in Lasiana, sells her husband’s catch and occasionally joins her husband in fishing in the sea. AS lives in Air Mata and sells fish supplied by MB and BE in Kupang City [Fisheries]. Radith, a young fisherman who lives in the Alak fishery, does not only go to sea for a living but, along with the freediving community, he is actively engaged in coral reefs transplantation.

Even though they live in different locations, these five fishermen, small-scale fisheries business actors, and coastal residents share the same story in their interactions with Cyclone Seroja. Their lives were threatened, their homes were damaged, and the waves destroyed their boats and fishing gear. They spent months rebuilding their lives. Meanwhile, some important matters – such as the coral reefs that once stretched the length of Kupang City and the abundance of fish in the sea – did not return to how they used to be.

On April 4, 2021, Kupang City was hit by Cyclone Seroja. Seroja was the most significant typhoon in the Southern Hemisphere in 2021, killing 230 people in East Nusa Tenggara, Flores, and Timor.160 Kupang welcomed 700.4 mm of rain during the four typhoon days.161 Extreme rainfall caused flooding, landslides, and wave heights reaching 7 meters or higher.162

Even though they survived, they still remember how Seroja threatened their lives, “It was very strong, like a tsunami, just 25m from the shore waves and rocks hit us. At the evacuation point, tin was flying above us. At that time, I was prioritizing the safety of my soul and that of the local people,” recalled Dewa. BE, who lives in Lasiana, recalled that during the typhoon, coastal residents of Lasiana “I couldn’t sleep, the beds were all wet, so we slept standing up, sitting up while sleeping. Our wardrobes were drenched for three days; our clothes were all wet.” Food ingredients were also soaked, except rice and corn, which were stored in plastic.

Unlike Dewa, who understands disaster from the school of fisherman's weather field initiated by BMKG and can manage residents' evacuation in his place of residence, MB only learned about cyclone Seroja after it occurred. "That day, I was about to go to sea, but the children told me not to go. There were signs of a disaster." BE and his neighbors in Lasiana,

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161 Ibid.

did not think the early warning would happen, “The fishermen went to sea in the morning. Then they went home, slept, and around 10 o’clock, we saw that the boats were all destroyed. So we readied our stuff and rushed to find a high place. We were soaking wet and starving. Then around 6 o’clock, we returned,” said BE. Other fishermen in Nunbaun Delha experienced a similar fate. They received information about cyclones through the family WhatsApp group or only learned about cyclones after they occurred.

Seroja erased the results of years of hard work of fishermen. Four God ships, which had been earned through years of hard work and savings, were crushed by the waves before his eyes. It also happened to MB ketinting ship. BE and her husband lost their tanca, boat, and fishing gear. All fishermen experienced disruption to their livelihood because they must rebuild their boats and fishing gear to return to fishing. It took three months for Dewa and four months for BE to build their boats. MB has not yet bought a new boat and only catches fish in a small engineless canoe while submitting requests for assistance with ketinting machines. BE and her husband had to borrow Rp 15 million from the cooperative. At the same time, Dewa used his savings of Rp 75 million to rebuild houses and boats and build a weather monitoring post independently.

In addition to the boats, the residence was also badly damaged. MB’s house was heavily damaged, "From the front to the back, it was just a cloud of dust. Everything was destroyed." Dewa recalled that after the cyclone, the residents of Oesapa worked together to repair the houses, "We fixed what’s left of it. We collected tin. We gave them any tin we could find for those who couldn’t find their missing tin. Just temporarily, to make it liveable. After returning to work, then I bought new tins." MB was reluctant to borrow money to repair his house. So he repaired the house with his son, which is still ongoing today.

Food insecurity after a cyclone is like a post-disaster situation. In the days following the cyclone, “There were no fish, no vegetables, we relied on help from volunteers for food,” recalls Dewa. BE recalls, “For two weeks, there was no fish, so we ate noodles, no eggs, no vegetables. Shops were destroyed.” Only after two weeks then we could access dried fish from outside Kupang. Seroja, which damaged 80% of Kupang’s fishing boats, disrupted the fish supply for the coastal city, whose main protein source is fish. "Maybe after about a month, the supply of fresh fish will slowly return to normal because fish from outside come in, and fishermen start to have boats." However, the fish supply is no longer the same. AS, who works selling fish caught by fishermen, complained about the dilemma she encountered after Seroja, "Fish price from catching fishermen is high because it is difficult for them to catch the fish. Meanwhile, we cannot put a higher selling price because people's purchasing power is limited." As a fish trader, AS feels the significant difference in income before and after Seroja, "For example, by selling two to three fishes (20 kg cans) a day of melu fish, I used to earn Rp 200.000. Now, you can buy one fish at most, and the profit is only IDR 60 thousand, reduced by the round trip fee of IDR 40 thousand. It was barely enough to buy food, and we can’t save money anymore.”

This reduced catch may be connected to the massive damage to coral reefs along the Kupang coast due to Seroja. “In the past, when we wanted to go fishing, we didn’t need to go far because there were still fish houses there. After the cyclone, it was hard for fishermen who used canoes. They must go far to the middle of the sea to find fish.” Responding to this deterioration, Radith and his community attempt to restore coral reefs with transplants. This attempt is growing well in three kelurahan and one village. However, this effort is also threatened by increasingly frequent extreme heat, which before Seroja had also bleached the coral reefs at the Kupang Tenau Harbor. “Around May 2020, I was free-diving in the harbor
jetty; all the way there, the corals were all white. At that time, I thought people caused it, but I asked BKKPN Kupang, and they said it was because of global warming. Yet not long before I dived there, the corals were still healthy.”

Tropical cyclones like Seroja will become less frequent but stronger due to climate change. In 2021, NASA’s Earth Observatory noted, "Seroja is increasing due to warmer-than-usual sea surface temperatures affected by La Niña."¹⁶³ Warmer sea surface temperatures occur in the southern Indian Ocean, adding energy, water vapor, and increasing humidity of the surface air and upper atmosphere, causing tropical cyclones’ formation.¹⁶⁴ Not only are extreme weather threats such as Seroja, but coastal cities such as Kupang are also threatened by slow-moving disasters – such as coral bleaching, which causes fish stocks to decline, disrupting the food security of their communities.

4.3. **The Government of Indonesia has a constitutional responsibility to protect Plaintiffs from the human rights impacts caused by the climate crisis**

4.3.1. **The Government’s human rights obligations concerning the climate crisis are based on the 1945 Constitution and Indonesian law**

87. This complaint concerns the violation of the human rights of the Plaintiffs as guaranteed in the 1945 Constitution and Indonesian law, i.e.:

a) the right to life and the right to live in physical and spiritual prosperity in a good and healthy environment (Article 28A and Article 28H paragraph (1) of the 1945 Constitution; Article 9 paragraph (1), (2), and (3) of the Law on Human Rights), described further in Section 4.5.1.

b) the right to self-development through the fulfillment of basic needs (Article 28C paragraph (1) of the 1945 Constitution; Articles 11 and 40 of the Human Rights Law) is further explained in Section 4.5.2.

c) the right to food and water (Article 28C(1) and Article 28H(1) of the 1945 Constitution; Article 11 of the Human Rights Law), which is further explained in Section 4.5.3.

d) the right to education (Article 28C paragraph (1) and Article 31 paragraph (1) of the 1945 Constitution; Article 12 of the Human Rights Law), further explained in Section 4.5.4.

e) the right to work and earn a decent living (Article 27 paragraph (2) and Article 28D paragraph (2) of the 1945 Constitution; Article 38 paragraph (1), (2), and (4) of the Human Rights Law), explained further in Section 4.5.5.; and

f) children’s rights (Article 28B paragraph (2) of the 1945 Constitution; Articles 52-66 of the Human Rights Law), which is further explained in Section 4.5.6.


The Plaintiffs’ enjoyment of these basic rights has been affected by climate change, and their fulfillment will be increasingly threatened without decisive action to prevent climate damage.

88. By contributing to causing and exacerbating the climate crisis, the Government has failed to fulfill its constitutional obligations to protect, promote, uphold and fulfill the rights of Plaintiffs. As stated in Article 28I paragraph (4) of the 1945 Constitution, "The protection, promotion, enforcement, and fulfillment of human rights are the responsibility of the state, especially the government." 165

89. This is emphasized in the Law on Human Rights, “The government is obliged and responsible for respecting, protecting, upholding, and promoting human rights as regulated in this Law, other laws and regulations, and international law on human rights acknowledged by the Republic of Indonesia.” 166 In carrying out its responsibilities, the Government also needs to ensure “effective implementation steps in the legal, political, economic, social, cultural, national defense and security fields.” 167 For example, concerning the right to health, National Commission of Human Rights noted in its review of the fulfillment of the right to health that “states must take appropriate steps towards implementation and maximize the use of all available resources”; 168 steps taken by the government to carry out its responsibilities “should be implemented in a concrete and targeted manner towards the full realization of the right to health.” 169

90. Climate change is a human rights issue, as recognized in various Indonesian laws and regulations:

a) Law no. 32 of 2009 concerning Environmental Protection and Management ("PPLH Law"), which in the preamble (Considering Section) specifically refers to “the right to a good and healthy environment as a human right of Indonesian citizens” and states that “the increasing global warming resulting in climate change, thus exacerbating the decline in the quality of the environment” 170

b) Law no. 16 of 2016 concerning the Ratification of the Paris Agreement to the United Nations Framework Convention on Climate Change (the Paris Agreement on the United Nations Framework Convention on Climate Change) (“Act on Ratification of the Paris Convention”), which in its legal basis (Recalling Section) Referring to Article 28H of the 1945 Constitution, i.e., the right to live in physical and spiritual prosperity and the right to a good and healthy environment. In the preamble to the attached copy of the Paris Agreement, there is a paragraph specifically linking actions to address climate change with state responsibilities towards human rights,

“The Parties required to, when taking action to address climate change, respect, promote and consider their responsibilities towards human rights,

165 Indonesia, 1945 Constitution, Article 28I paragraph (4).
167 Ibid., Article 72.
170 Indonesia, Law on Environmental Protection and Management, Section Considering letters a and e
the right to health, the rights of indigenous and tribal peoples and local communities, migrants, children, persons with disabilities and groups in vulnerable and the right to development including gender equality, women's empowerment, and intergenerational justice.\textsuperscript{171}

c) Law no. 18 of 2012 concerning Food (the “Food Law”), which in the consideration considers that “Food is the most important basic human need and its fulfillment is part of the human rights guaranteed in the 1945 Constitution\textsuperscript{172} and in the legal basis (Recalling Section) referring to Article 28A and Article 28C of the 1945 Constitution. The Food Law contains various references to climate change, among others, in defining the food crisis (the impact of climate change as one of the causes of the food crisis),\textsuperscript{173} as one of the things that are a threat to food production that is mandatory anticipated and addressed by the Government,\textsuperscript{174} and as a direction for food research and development.\textsuperscript{175}

d) Law no. 19 of 2013 concerning the Protection and Empowerment of Farmers (“Farmers Law”), which in the Recalling Section refers to Article 28H of the 1945 Constitution; and in its consideration considers that the protection and empowerment of farmers are carried out to fulfill “the basic rights and needs of citizens,” and recognizes “the increasing trend of climate change, vulnerability to natural disasters [...] therefore, farmers need protection and empowerment.”\textsuperscript{176}

e) Law no. 7 of 2016 concerning the Protection and Empowerment of Fishermen, Fish Cultivators, and Salt Farmers (the “Fishermen Act”), which in the Recalling Section cites Article 28H paragraph (1) of the 1945 Constitution, i.e., the right to live in physical and spiritual prosperity, to own a place to live, and obtain a good and healthy living environment and have the right to obtain health services; and its purpose explicitly refers to climate change, “Protecting from the risks of natural disasters, climate change, and pollution.”\textsuperscript{177}

f) Law no. 22 of 2019 concerning the Sustainable Agricultural Cultivation System (“Sustainable Agriculture Law”), which in the consideration considers that “The sustainable development system needs to be forged in development in agriculture through the agricultural cultivation system to achieve food sovereignty by taking into account the carrying capacity of the ecosystem, climate change mitigation and adaptation ...”\textsuperscript{178}; and in the legal basis (Recalling Section) it refers to Article 28A of the 1945 Constitution;

g) Law no. 17 of 2019 concerning Water Resources (the “Water Resources Law”), which in its body recognizes the principles of “state protection of the

\textsuperscript{171} Indonesia, Law on the Ratification of the Paris Agreement.
\textsuperscript{172} Indonesia, Food Law, Law no. 18 of 2012, LN No. 227 of 2012, TLN No. 5360, Considering Section, letter a.
\textsuperscript{173} Ibid., Article 1 number 29.
\textsuperscript{174} Ibid., Article 22 paragraph (1).
\textsuperscript{175} Ibid., Article 118 paragraph (2).
\textsuperscript{176} Indonesia, Law on the Protection and Empowerment of Farmers, Law no. 19 of 2013, LN No. 131 of 2013, TLN No. 5433, Section Considering letter c.
\textsuperscript{177} Indonesia, Law on the Protection and Empowerment of Fishermen, Fish Cultivators and Salt Farmers, Law no. 7 of 2016, LN No. 68 of 2016, TLN No. 5870, Article 3 letters e.
\textsuperscript{178} Indonesia, Law on Sustainable Agricultural Cultivation Systems, Law no. 22 of 2019, LN No. 201 of 2019, TLN No. 6412, Considering Section letter b.
people’s right to water” and “environmental sustainability as one of the human rights”, and requires the management of water resources to pay attention to climate change.180

91. Indonesia has also recognized that climate change is a human rights issue in addressing climate change. Nationally Determined Contribution (NDC), an action plan for reducing greenhouse gases and adapting to climate change that the government must construct as part of its Paris Agreement obligations, explicitly refers to its human rights obligations. Indonesia: “In line with the Paris Agreement, Indonesia respects, supports, and considers its obligations to human rights, the right to health, the rights of Indigenous People, local communities, immigrants, children, youth, the elderly, people with disabilities, people in vulnerable situations; and the right to development, including gender equality, women’s empowerment and equality between generations.”194

92. The same acknowledgment is also reflected in Indonesia’s Long-Term Strategy for Low Carbon and Climate Resilience (LTS-LCCR), where Indonesia states the document “reflects the mandate of Article 28H of the Indonesian Constitution (UUD 1945) regarding the state’s obligation to ensure a decent life and a healthy living environment for all citizens.”195 The statements in the NDC and LTS-LCCR, as the most important documents outlining Indonesia’s climate commitments, provide a strong signal of the Government’s willingness to adopt a rights-centered approach to its climate change policies.

93. The statements in the NDC and LTS-LCCR, as the most important documents outlining Indonesia’s climate commitments, indicate that the Government itself recognizes that it must adopt a rights-centered approach to its climate change policy.

4.3.2. State responsibilities for human rights and climate change must be interpreted consistently with the sources of international human rights law accepted by governments.

94. As stated in the Human Rights Law and reflected in the general comments, reports, recommendations, and legal opinions of court friends made by National Commission of Human Rights, international human rights law has been used as a source in interpreting Indonesia’s human rights obligations.

95. International human rights law bodies and experts have clarified the human rights obligations of all States concerning climate change, which informs Indonesia’s

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179 Indonesia, Law on Water Resources, Law no. 17 of 2019, LN No. 190 of 2019, TLN No. 6405, Article 46 letters b and c.
180 Ibid., Article 22 paragraph (2) letter f.
interpretation of its constitutional obligations related to climate change. For example, the five United Nations human rights treaty bodies that monitor the implementation of international human rights treaties that Indonesia has ratified, published a “Joint Statement on Human Rights and Climate Change” in 2020. This Joint Statement acknowledges that: “Failure to take steps to prevent the foreseeable harm to human rights caused by climate change, or to regulate activities that contribute to such damage, may constitute a violation of human rights obligations of States.” Also, some treaty bodies incorporate climate-related obligations in their general comments. Treaty bodies have also noted human rights obligations of State Parties related to climate change in their recommendations during reviewing periodic reports.

96. Second, the UN Special Rapporteur on Human Rights and the Environment, David Boyd, has investigated and reported on the association between human rights and climate change. In his report on “Human Rights and a Safe Climate” at the 74th session of the 2019 United Nations General Assembly, the Special Rapporteur sets out states’ human rights obligations in relation to climate emergencies. The Special Rapporteur stated that: The catastrophe of climate change on the enjoyment of various human rights creates a broad obligation on the part of States to take immediate action to prevent these losses. To fulfill their international human rights obligations, States should adopt a rights-based approach to all aspects of climate change and climate action. Other Special Rapporteurs have also recommended States’ human rights obligations related to climate change.

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184 Indonesia ratified: (1) the Committee on the Elimination of Discrimination Against Women on 13 September 1984; (2) Committee on Economic, Social and Cultural Rights on February 23, 2006; (3) Committee to Protect the Rights of All Migrant Workers and Members of Their Families on 31 May 2012; (4) Committee on the Rights of Children on September 5, 1990; and (5) Committee on the Rights of Persons with Disabilities on November 30, 2011. See UN Human Rights Treaty Bodies, “Ratification Status for Indonesia,” accessed on 4 July 2022.


186 See: UN Human Rights Committee, General comment No. 36 (2018) on article 6 of the International Covenant on Civil and Political Rights, on the right to life; UN Committee on the Rights of the Child, General Comment No. 15 (2013) on the right of the child to the enjoyment of the highest attainable standard of health (art. 24); UN Committee on Economic, Social and Cultural Rights, General Comment No. 15 (2002) The right to water (arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights); UN Committee on the Elimination of Discrimination against Women, General Recommendation No. 37 on Gender-related dimensions of disaster risk reduction in the context of climate change.


97. Third, the United Nations Human Rights Council has recognized threats to various human rights from the climate crisis and articulated state obligations related to climate change action in its resolutions. In its 2021 resolution on human rights and climate change, the Council recognized that the rights of people in vulnerable situations are disproportionately affected by the negative impacts of climate change. At the request of the Human Rights Council, OHCHR has also presented analytical studies and reports on climate change and various human rights.

98. The sources of international law above, which complement the interpretation of Indonesian human rights law, explain that Indonesia has the following human rights obligations in addressing the climate crisis:

1. **Mitigation**: Substantive obligation to mitigate climate change by mobilizing the maximum available resources with the highest possible ambition;

2. **Adaptation**: Substantive obligation to adopt climate resilience measures that minimize harm and losses caused by climate change; and

3. **Cross-sectoral obligations**: Procedural obligations to ensure that all climate adaptation and mitigation actions are inclusive/participatory, fair/equivalent, and the additional obligation to prioritize the most affected and vulnerable populations.

**Obligations related to mitigation**

99. The joint statement of the International Treaty Bodies explains: “For States to comply with their human rights obligations, and to realize the goals of the Paris Agreement, they must adopt and implement policies aimed at reducing emissions, reflecting the highest possible ambitions ... and ensuring that public and private investment is consistent with a pathway to low carbon emissions and climate-resilient development.”

100. The global scientific consensus has confirmed that preventing “predictable harm” from climate change requires, at a minimum, limiting the rise in global average temperature to 1.5°C. Reducing emissions with the highest possible ambition is an ideal option for Indonesia and other countries to pursue efforts to prevent warming at a level that would prevent the loss of human rights increasingly disrupted by climate change. A recent IPCC report has found that limiting the increase in global average temperature to 1.5°C will require a complete halt...
to the unabated burning of fossil fuels, a reversal of deforestation, and an equitable transition to renewable energy.\(^{194}\)

101. The previous government has attempted to use the UNFCCC’s “shared but distinct responsibility” principle to justify the lack of action on climate mitigation (discussed in more detail in section 4.4 below). However, this principle does not release Indonesia from its human rights obligations. Governments must comply with the UNFCCC climate agreements and the national and international human rights obligations that bind them.

102. International human rights law recognizes that, even if the full realization of all rights cannot be achieved immediately, all States remain responsible for the “progressive realization” of these rights and must “move as quickly and effectively as possible towards the goal [of full realization of HAM].” The government has a positive obligation to ensure that existing laws and policies do not violate the most basic rights and to implement steps to realize human rights progressively. The International Covenant on Economic, Social, and Cultural Rights stipulates that States should “take steps, both individually and through international assistance and cooperation” and use “the maximum available resources” to realize ECO rights. The United Nations Committee on Economic, Social and Cultural Rights (CESCR) has stressed that states must take “deliberate, concrete and targeted” steps towards progress without delay.

103. In the context of climate change, the Joint Statement of the five UN human rights committees affirms that all countries are obliged to “dedicate the maximum available resources to adopting measures aimed at mitigating climate change” as well as “adopting and implementing policies [to reduce] emissions, reflecting the highest ambitions possible” (emphasis added), according to the Paris agreement. If a state’s actions under a climate treaty do not achieve this goal, then it cannot fulfill the state’s human rights obligations.

104. Governments cannot use the principle of “shared but distinct responsibilities” in the UNFCCC to circumvent their obligations to respect, protect and fulfill human rights. While it is well recognized that countries have different levels of development and capacities to fulfill their human rights obligations, the Indonesian government is bound to dedicate “maximum available resources” to adopting measures aimed at mitigating climate change. Governments cannot, for example, continue to support carbon-intensive industries when viable, clean energy alternatives are available at comparable costs that are more aligned with rights-based approaches.

105. The Treaty Body recognizes that a policy change is urgently needed. The Committee’s joint statement further explains that in reducing emissions, States should:

a) effectively contribute to the elimination of fossil fuels,

\(^{194}\) Intergovernmental Panel on Climate Change, “Sixth Assessment Report.”
b) promoting renewable energy and addressing emissions from the land sector, including by fighting deforestation,

c) regulate private actors, including by holding them accountable for the losses they incur both within and outside their territory, and

d) as a mitigation measure to prevent further damage and risk, stop financial incentives or investments in activities and infrastructure that are not compatible with the low GHG emission path.195

106. Similarly, the Report of the Special Rapporteur recommends the following rights-based measures for mitigation:

a) Immediately halt all fossil fuel subsidies;

b) Block building new coal-fired power plants (unless equipped with carbon capture and storage technology) and require existing coal-fired power plants to be reinstalled or shut down by 2050 worldwide;

 c) Enact legislation to introduce zero-carbon transport; and

d) Limiting the fossil fuel business and its industry associations so as not to influence government policies.

The report of the 2019 Special Rapporteur also called for urgently accelerating other mitigation actions, including adopting a moratorium on all deforestation by 2020 and initiating reforestation, as well as increasing government support for renewable energy.

107. Furthermore, in taking a rights-based approach, governments should especially consider how vulnerable populations are affected by mitigation measures. All mitigation solutions must be consistent with a human rights-centered approach. Even measures that reduce emissions can run counter to climate justice; for example, the conversion of fossil fuels to biofuels has confiscated customary forests and converted primary forests into oil palm concessions in West Kalimantan and Jambi. The conversion also harmed the rights of indigenous peoples or other vulnerable groups.196 Therefore, human rights-based approach opposes ‘false solutions,’ such as carbon capture and storage (CCS), biofuels, and carbon offset schemes, which claim to reduce climate change but jeopardize other human rights. As Special Rapporteur David Boyd warns: “If done poorly, carbon dioxide removal efforts can displace other land uses, causing devastating impacts on food security, biodiversity, and human rights.” 197

108. In order to fulfill its human rights obligations and act in a manner consistent with the goal of a safe climate, the Indonesian government should reduce emissions, carrying out the necessary steps outlined in the Statement of Treaty Bodies and Reports of the Special Rapporteur. Considering that the main barriers to mitigation in the context of Indonesia

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are in the energy and forestry sectors (as described further in section 4.4.), the government should prioritize the following actions:

a. Enforce a moratorium on new coal-fired power plants and commit to urgent early retirement from existing coal-fired power plants;

b. Renew the national moratorium on licensing of oil palm plantation concessions and revoke the amnesty for oil palm plantations operating illegally within forest areas;

c. Promote sustainable polycultural and indigenous farming practices that will reduce Indonesia's net emissions while ensuring crop resilience and aiding farming communities adapt to climate impacts.

**Responsibilities related to adaptation**

109. The government is obliged to minimize losses due to climate change through adaptation efforts. In order to fulfill human rights obligations and the Paris Agreement's objectives, the UN treaty bodies jointly determined that States should promote climate resilience and ensure that public and private investment is consistent with climate-sustainable development. Committee on Economic, Social and Cultural Rights has recommended that “States parties should adopt measures to adapt to the negative consequences of climate change, and integrate such measures into existing social, environmental and budgetary policies at the domestic level.” Special Rapporteur on human rights and the environment noted, "The implementation of adaptation measures needs to be dramatically accelerated."

110. Taking a rights-based approach, States should ensure that appropriate adaptation measures are taken to protect and fulfill the rights of all people, in particular those most threatened by the negative impacts of climate change, such as those living in vulnerable areas, including small islands, riparian and lowland areas, coastal areas, and dry areas.

111. The Special Rapporteur on Human Rights and the Environment stated that priority should be given to the most vulnerable and marginalized communities in implementing adaptation. He stated: “A rights-based approach must be applied to address the root causes of vulnerability, such as poverty, inequality, discrimination and marginalization, and not just symptoms of climate change impacts. Developing countries should pursue climate-resilient, low-carbon development, integrating adaptation

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198 Indonesia, President, Presidential Instruction on Suspension and Evaluation of Permits on Oil Palm Plantation and Increasing Oil Palm Productivity, Number 8 of 2018.
and disaster risk reduction measures, with financial and technical assistance from developed countries. 203

112. The Report of the Special Rapporteur specifically recommends the following rights-based adaptation measures:

a) Develop adaptation actions through an inclusive and participatory process based on the specific knowledge, aspirations, and context of the affected countries, communities, and individuals;

b) Implement national adaptation plans and/or national adaptation action programs that deal with extreme weather disasters and slow occurrences by building or upgrading infrastructure (such as water, sanitation, health, and education facilities) to be climate resilient; develop disaster risk management and reduction strategies, early warning systems and emergency response plans; and provide disaster relief and humanitarian assistance in emergencies, following the 2015–2030 Sendai Framework for Disaster Risk Reduction;

c) Provide social protection mechanisms to reduce vulnerability to disasters and climate-related stresses, enabling communities to become more resilient;

d) Prioritize nature-based adaptation actions, as protecting and restoring ecosystems can reduce vulnerability, buffer the impact of extreme catastrophic weather and uneventful events, and improve ecosystem services, including clean water, clean air, fertile soil, pest control, and pollination;

e) Accelerate and scale up actions to strengthen the resilience and adaptive capacity of people's food systems and livelihoods in response to variability and extreme climate;

f) Ensure that adaptation measures do not reduce the vulnerability of one group at the expense of others, future generations, or the environment. 204

113. Adaptation measures with mitigation and other social and environmental co-benefits should be prioritized. As pointed out by the Special Rapporteur on the right to food, nature-based engineering solutions, such as mangrove rehabilitation, can be a more sustainable method of building resilience to flooding and erosion without requiring expensive and strenuous construction work. 205 In discussing good climate change practices, UN Special Rapporteur on the right to food, Olivier De Schutter, promotes agroecology (which improves agricultural systems by imitating natural and ecological processes, for example, to improve soil quality) to increase climate resilience in agriculture. 206 He points out that agroecological techniques have an important co-benefit: they protect against the negative impacts of extreme weather, floods, droughts, and pest attacks from climate change while reducing emissions by increasing carbon sequestration in the soil. 207

204 Ibid., para. 86.
205 Ibid., para. 69.
207 Ibid. para 29, 31.
In the context of Indonesia, the government should implement adaptation measures that minimize the human rights losses suffered by the most affected communities, including coastal and small island communities affected by storm surges and floods, farming and fishing communities whose livelihoods are threatened, and vulnerable groups such as children and indigenous people. In prioritizing resource mobilization to address climate change, it would be wise for the government to implement adaptation measures that have additional benefits for the fulfillment of human rights, such as:

a) rehabilitation of mangrove and coral ecosystems that function as natural coastal protection against flood and erosion, and

b) promoting sustainable agricultural practices that simultaneously reduce emissions and increase food security.

c) Procedural obligations

Procedural Obligations

The government should ensure that all actions taken in climate adaptation and mitigation are inclusive and equitable. The United Nations Treaty Body states that: “When reducing emissions and adapting to climate impacts, States should seek to address all forms of discrimination and inequality, including promoting gender equality substantive rights, protecting the rights of indigenous people and persons with disabilities, and considering the best interests of children.”

The Special Rapporteur on human rights and a good and healthy environment stressed the importance of taking a rights-based approach to climate action, guided by the “principles of” universality and non-discrimination, emphasis on guaranteed rights for all, including vulnerable groups.

In addition to the substantive considerations above, procedurally, vulnerable groups and affected communities also need special attention. For example, the UN Special Rapporteur on Human Rights and the Environment stated that in ensuring public participation, states also need to “ensure an inclusive, equitable and gender-based approach to public participation in all climate-related actions, with particular emphasis on empowering the most affected populations, i.e., women, children, youth, indigenous people and local communities, people living in poverty, persons with disabilities, the elderly, migrants, refugees and other at-risk communities.”

Gender equality and respect for the rights of indigenous people, including their right to without coercion, prior and informed consent, also needs to be prioritized in all climate actions.

In addition, states need to ensure that all climate actions ensure the fulfillment of procedural rights for all rights bearers, particularly by “providing information, facilitating participation, and providing access to remedies.”

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211 ibid., para. 64 letter b.
212 ibid., para. 64 letters e and f.
213 ibid.; UN Environment Programme, Climate Change and Human Rights (Nairobi: UNON Publishing Services Section, 2015).
on Human Rights and the Environment detailed the Government’s procedural obligations in ensuring a safe climate, including, among others:\(^{214}\):

a) Provide accessible, affordable, and publicly understandable information on the causes and consequences of the global climate crisis, including incorporating climate change into educational curricula at all levels;

b) Assess potential climate change and human rights impacts of all plans, policies, and proposals, including upstream and downstream effects (i.e. emissions related to production and consumption);

c) Enable affordable and timely access to justice and effective remedies for all, to hold States and businesses accountable for meeting their climate change obligations;

d) Protect environmental and human rights defenders working on all climate-related issues, from land use to fossil fuels. States must vigilantly protect human rights defenders from harassment, intimidation, and violence;

118. In order to fulfill its human rights obligations and act consistently with the goal of a safe climate, in the context of Indonesia, the Government should, among other things, prioritize these procedural obligations,

a) Create/ensure meaningful opportunities for public consultation and disclosure of relevant documents to the public before making important decisions that may contribute to climate change or undermine community resilience to climate impacts.

b) Allow meaningful public consultation before permitting fossil fuel or forestry projects that will significantly increase Indonesia’s net emissions; and

c) publicly disclose relevant documents and data, such as a cumulative GHG impact assessment, that informs the decision.

4.4. The government has failed to fulfill its responsibility to respect, protect, uphold and promote human rights from the disturbances and threats of climate change

119. The government is aware of the risks of climate change to human rights and has recognized the need to take action to mitigate and adapt to climate change. Indonesia is well aware of the importance of the goal of limiting global temperature to 1.5°C and the catastrophic consequences of failing to achieve this goal, as demonstrated by Indonesia’s continued participation in global climate negotiations since 1989 and various national scientific efforts to understand climate change and its impacts.

120. Indonesia ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1994, which recognized that “We recognize that human activities have increased the concentration of greenhouse gases in the atmosphere and this increase will advance the effect of greenhouse gases which in turn result

\(^{214}\) UN Human Rights Special Procedures, “Safe Climate: A Report,” para. 64.
in an increase in the average warming of the earth’s surface and atmosphere which can disrupt ecosystems.” Furthermore, the Explanation of the UNFCCC Convention Ratification Act also refers to the UN General Assembly Resolution 1989, which cites “the possible adverse effects of sea level rise on islands and coastal areas, especially in lowland coastal areas.” In addition, the section explaining ratification underscores the scientific awareness underlying the ratification, “The Parties to the Convention are aware of the invaluable analysis that many countries have carried out on climate change and the important contributions of the World Meteorological Organization, the United Nations Environmental Development Agency and other [research] agencies.”

121. The Indonesian government has also explicitly acknowledged its vulnerability to climate change. For example, Indonesia cited climate change as one of the reasons for enacting the PPLH Law in 2009: “that increasing global warming is causing climate change so that it exacerbates the decline in environmental quality because it is necessary to take [steps for] environmental protection and management.” The explanation of the 2009 PPLH Law further states, “Indonesia is also in a very vulnerable position to the impacts of climate change. These impacts include a decrease in food production, disruption of water availability, the spread of pests and plant diseases as well as human diseases, rising sea levels, the sinking of small islands, and the loss of biodiversity.” The law also includes specific policy instruments that deal with climate change and grants authority to the Minister of Environment and Forestry to undertake climate mitigation and adaptation measures.

122. In 2016, Indonesia ratified the Paris Agreement, which aims to “hold the rate of increase in global average temperature below 2°C above pre-industrialization temperatures and continue efforts to limit the increase in global average temperature to 1.5°C above pre-industrialized temperatures, recognizing that this will significantly reduce the risks and impacts of climate change.” As a party to the Paris Agreement, Indonesia is obliged to develop an NDC to follow up on this global goal.

123. Indonesia affirmed its commitment to “make efforts to limit temperature rise to 1.5°C above pre-industrial levels” in its Updated NDC, which was submitted to the UNFCCC secretariat in July 2021. Furthermore, the 1.5°C temperature limit was reaffirmed in the Explanation of Law Number 16 of 2016 concerning the Ratification of the Paris Agreement (Law on the Ratification of the Paris Convention), with specific examples of observed and projected impacts in various parts of Indonesia.

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216 Ibid, p. 5.
217 Ibid.
218 Indonesia, Law on Environmental Protection and Management, Law no. 32 of 2009, LN No. 140 of 2009, TLN No. 5059, Considering Section the letter e.
220 Indonesia, Law on the Ratification of the United Nations Framework Convention on Climate Change, Law No. 16 of 2016, LN No. 204 of 2016, TLN No. 5939
221 The Government of the Republic of Indonesia, “Updated Nationally Determined Contribution,” p. 3.
222 Indonesia, Law on the Ratification of the Paris Agreement, Explanation Section, p. 5.
The explanation acknowledges that “Indonesia is located in a geographical area that is very vulnerable to the impacts of climate change,” citing projected sea level rise, storm surges, and tidal flooding that will impact Indonesia’s territory, where “the number of islands is more than 17,000, and some Most of the provincial capitals and almost 65% of the population live in coastal areas.”224 The explanation also refers to observing the occurrence of “wet and dry months shift. Rainfall intensity is higher, and rain duration is shorter in northern Sumatra and Kalimantan. Meanwhile, lower rainfall and longer rain duration occur in the southern part of Java and Bali.” 225

124. Since the ratification of the UNFCCC, Indonesia has regularly participated in the Conference of the Parties (COP). With its participation, Indonesia witnessed and gained knowledge of the growing scientific understanding of climate change impacts and costs of inaction discussed at each COP and continuously utilized that knowledge in negotiating temperature targets.

125. Indonesia's knowledge of climate change is obtained through climate negotiations and scientific reports produced by the IPCC, which form the basis for the physical science of temperature gains. In 2018, the IPCC published a summit report entitled, “Global Warming of 1.5°C”,226 which reaffirmed global acceptance that all scenarios 'slightly below 2°C' would cause far worse economic and physical damage than the 1.5°C scenario. 227 and formed a consensus on the need to limit heating to 1.5°C above pre-industrial levels. The report also highlights the observed and projected impacts of climate change in Indonesia (as summarized in section 4.1 above). An Indonesian scientist served as the lead author, and the other served as the review editor of this report,228 and at least six Indonesian experts were reviewers.229

Indonesia cited the IPCC report in its official statement on the High-Level Segment

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224 Ibid., p. 4.
225 Ibid., p. 3.
226 IPCC, 2018: Global Warming of 1.5°C is an IPCC Special Report on the impact of 1.5°C global warming above pre-industrial levels and associated global greenhouse gas emission pathways to strengthen the global response to the threat of climate change, sustainable development, and mitigation efforts of poverty. See IPCC, “2018: Global Warming of 1.5°C.”
227 The report states: “Climate models project strong differences in regional climate characteristics between current global warming and global warming of 1.5°C, and between 1.5°C and 2°C. These differences include increases in: average temperature over most land and sea areas (high confidence), extreme heat in most inhabited areas (high confidence), heavy rainfall in some areas (moderate confidence), and possible droughts and rainfall deficits in some areas (moderate confidence).” Further, Section 3.4.13, Figure 3.18 and Figure 3.20 of the report describe an increased risk of between 1.5 and 2 degrees for 11 “reasons of concern” (including, those relevant to Indonesia, corals, mangroves, coastal flooding, small-scale fisheries, terrestrial ecosystems, fluvial flooding, crop yields, heat-related morbidity and mortality, tourism, ability to achieve the SDGs). See: Ibid.
228 Riyanti Djalante of United Nations University, Institute for the Advance Study of Sustainability (UNU-IAS) acted as contributing author, and Rizaldi Boer of the Center for Climate Risk and Opportunity Management Indonesia acted as a review editor.
229 Erlania from the Center for Fisheries Research Indonesia; Aditya Kartadikaria from the Bandung Institute of Technology; Perdinin from Bogor Agricultural University; Linda Yanti Sulistyawati from Ahmad Dahlan University Indonesia; Agus Susatya from UNIB; from Rahayu Josep-Paul from Buton Regency Government participated as a reviewer. See: Ibid., Annex IV: Expert Reviewers of the IPCC Special Report on Global Warming of 1.50C, p. S81-600.
of the COP Summit in Katowice, 12 December 2018, emphasizing “the importance of early action on climate change, which makes the role of pre-2020 ambitions even more important.”

Indonesia also understands that it will suffer huge economic losses due to the dangers of climate change. For example, the NDC Roadmap for Indonesia’s Climate Change Adaptation 2020 cites the Asian Development Bank (ADB) projection that climate change could impact up to 3.5% of National GDP, or a total of IDR 258.96 Trillion, by 2100.231 Most of the losses are concentrated in the agricultural sector and coastal areas (Rp 162.78 trillion or 2.2% of national GDP) and an increase in the frequency of climate disasters (Rp 22.197 trillion or 0.3% of national GDP).232 The document also cites a previous study, “The results of the RAN-API revision study show that that the potential economic loss of the four priority sectors (marine & coastal, water, agriculture, and health) due to climate change reaches IDR 102.36 trillion in 2020 or equivalent to 0.61% of the 2020 GDP target and can reach 115.53 trillion in 2024.”233 If it is calculated by the damage to ecosystem services and disaster events, the potential loss can reach IDR 4,328.38 T in 2030.

Indonesia’s acceptance of its responsibility to mitigate greenhouse gas emissions is also reflected in the Government’s actions on carbon neutrality. Although not yet explicitly committed to a carbon neutral target, the Indonesian government has raised the prospect of achieving carbon neutrality by 2060 in its Long-Term Strategy for Low Carbon Development and Climate Resilience 2050 (LTS-LCCR) presented to the UNFCCC in July 2021234 and in a statement by the Minister of Energy and Mineral Resources.235 The National Energy Council announced that it would further review the prepared carbon neutrality scenarios collaborating with several ministries and the State Electricity Company (PLN) to commit to one path.

Despite understanding the risks of climate change and acknowledging that climate change will interfere with the enjoyment of human rights, the Government, with its actions and omissions, has failed to fulfill its human rights responsibilities related to climate change, as enshrined in the 1945 Constitution and other laws and regulations, as follows:

a) Mobilize the maximum available resources to reduce its emissions at the highest possible ambition and, in fact, exacerbate the human rights losses associated with climate change

b) Building adequate resilience and adaptation to current and projected climate change impacts in Indonesia;

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231 Based on the assumptions stated in the Adaptation Roadmap, i.e., the National GDP of Indonesia in 2010 was Rp. 7,399 T with the exchange rate of the rupiah against the US dollar of Rp. 9,800. See KLHK, NDC Roadmap for Climate Change Adaptation, (Jakarta: Ministry of Environment and Forestry Republic of Indonesia, 2020), p. 33.

232 Ibid., p. 32.

233 Ibid.

234 The Government of the Republic of Indonesia, “Indonesia’s Long-Term Strategy”

c) Fulfill procedural responsibilities to ensure that all climate change mitigation and adaptation actions are inclusive/participatory and fair.

4.4.1. **The government is not mobilizing the maximum available resources at the highest possible ambition in Indonesia’s climate mitigation actions**

129. Even though Indonesia accepts climate change management as its legal obligation to protect human rights, the Government’s actions are inconsistent with its responsibility to prevent violations and worsen the enjoyment of human rights due to climate change. Government actions and omissions have failed to adequately mitigate climate change, presently and in the future, by:

a) Despite being one of the world’s largest emitters of greenhouse gases from land use, land use change, forestry (LULUCF), and energy sectors, Indonesia still depends on deforestation and fossil fuels for [economic] growth.

b) Indonesia targets greenhouse gas emission reductions with very inadequate ambitions to achieve a safe climate goal where greenhouse gas emissions will continue to rise, based on an inflated baseline.

c) Indonesia allocates significant available resources to support carbon-intensive industries, even though there are viable alternatives that will be more beneficial for the fulfillment of human rights.

d) Indonesia cannot justify the allocation of its resources to carbon-intensive sectors on the basis of human rights because these sectors actually cause human rights violations at the grassroots.

**a) Despite being one of the world’s largest emitters of greenhouse gases from the LULUCF and energy sectors, Indonesia remains dependent on deforestation and fossil fuels to grow.**

130. Indonesia’s GHG emissions continue to grow rapidly, even though Indonesia is now the world’s seventh largest emitter of cumulative emissions, with 41.59 billion metric tons of CO2 equivalent (GtCO2e) carbon emissions from 1990 to 2018.236

131. Currently, most of Indonesia’s GHG emissions come from the Land Use, Land Use Change and Forestry (LULUCF), and energy sectors. According to the updated Indonesian NDC Document, most of the emissions came from the energy sector at 46.91%, followed by the LULUCF sector at 43.59% of its total emissions in 2016.237

132. The LULUCF sector releases significant GHG emissions, mainly from deforestation, including logging, land acquisition, and conversion of plantations and mining. Indonesia has lost significant primary forests due to conversion.

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to oil palm concessions and industrial forest plantations (HTI). From 2000 to 2015, Indonesia lost an average of 498,000 hectares of forest annually, making it the second largest contributor to deforestation in the world after Brazil. Post-deforestation peatland drainage for oil palm plantations and HTI concessions contributes significantly to the occasional spike in LULUCF emissions in Indonesia due to peatland fires. As a result of this practice, Indonesia continues to rank as the second largest contributor of LULUCF emissions in the world after Brazil from 1990 to 2010 and has overtaken Brazil as the world's largest emitter of LULUCF emissions from 2011 to the present day.

At the same time, the rapid growth of Indonesia's energy sector continues to increase the country's GHG emission contribution, with today's emissions at 289% higher than in 1990. Globally, Indonesia is the ninth largest emitter of this sector. The power generation sub-sector, which coal-fired power plants dominate, contributes to 35% of the sector's emissions. The sub-sector of the use of fossil fuels for transportation and industry is the next largest contributor, at 27% each. b) Based on an inflated baseline, Indonesia targets a very inadequate mitigation ambition to achieve a safe climate goal where greenhouse gas emissions will continue to rise.

Indonesia's NDC targets are grossly inadequate, allowing Indonesia to increase emissions when it should make major cuts. Even if Indonesia achieves its NDC mitigation targets, it will continue to be the world's largest emitter of LULUCF and is projected to overtake the position of major emitters in the energy sector as developed countries abandon fossil fuels. The Climate Action Tracker reports, “[i]f all government NDCs were within this range, warming would be between 3°C to 4°C.” The Government's ambition to reduce national GHG emissions falls short of the safe climate target of increasing average temperatures, where the increase of the global average should be capped at 1.5°C, even though the Government has recognized the importance of this temperature target for achieving a safe climate (as outlined in the introduction to section 4.4. above).

Indonesia's NDCs set low ambitions, well below Indonesia's ability to reduce global emissions, and Indonesia has not increased its ambitions since its first NDC in 2016. Indonesia’s NDCs include unconditional contributions to

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239 Ibid.

240 Ibid.

241 Ibid. In 2018, Indonesia's emissions of 598.17 MtCO2e of GHG came from the energy sector, almost three times compared to 1990, which was 207.16 MtCO2e. See: World Resources Institute, “Climate Analysis Indicators Tool (CAIT),” [https://www.climatewatchdata.org/ghg-emissions?end_year=2018&regions=top&sectors=land-use-change-and-forestry&start_year=1990](https://www.climatewatchdata.org/ghg-emissions?end_year=2018&regions=top&sectors=land-use-change-and-forestry&start_year=1990), accessed on 11 July 2022.


243 Ibid.

244 Indonesia states that the updated NDC is an improvement over the previous one, as there has been a slight update to the BAU scenario, from 2,881 to 2,869 MtCO2e/a in 2030. However, the BAU presented in the previous NDC is already 2,869 MtCO2e/a in 2030. Maintaining the BAU scenario and percentage
reducing GHG emissions, based on its resources and capabilities, as well as conditional contributions, subject to receipt of international financial or technical support. Both Indonesia’s unconditional and conditional targets are grossly insufficient to achieve its goal of limiting the increase in global average temperature to 1.5°C. 246 The Climate Action Tracker reports that “[if] all government NDCs are within this range, warming will be between 3°C to 4°C.”

136. The 2030 baseline or business as usual (BAU) emission trajectory in Indonesia’s NDCs has been criticized by independent observers as inflated.248 The inflated baseline in NDCs creates unrealistic claims of emission reductions.249

137. The NDC claims the unconditional and conditional mitigation scenarios are 16 and 20% reductions compared to BAU, excluding the Agriculture, Forestry, and Other Land Use (“AFOLU”) sectors.250 However, the more realistic BAU suggests unconditional and conditional mitigation scenarios resulted in a very large increase in emissions (an increase of 45 to 55%) and no reduction at all, as described below.

138. NDC 2030 projects energy emissions to increase to 2010 levels by 268%; waste emissions will increase by 236%; industrial process emissions will increase 93%; agricultural emissions will increase by 8%; and forestry emissions will increase by 5.5.251 When calculated collectively, the NDC projects that Indonesia’s non-AFOLU emissions will be 2,034 million metric tons of CO2e, a 252% increase over 2010.252 However, independent observers when combining Indonesia’s population growth projections by the United Nations Population Division, IMF annual GDP estimates, and IPCC CO2 emission intensity factors,


249 Ibid.

250 See: Unwelt Bundesamt, “Implementation of Nationally Determined Contributions: Indonesia Country Report,” https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2017-10-26_climate-change_24, accessed on 11 July 2022, p. 10; “The assumptions underlying the BAU scenario are described in sufficient detail in the 2015 RAN-GRK review (BAPPENAS 2015). However, there are inconsistencies between the NDC and RAN-GRK, which prevent a rigorous assessment of the Indonesian BAU. For the energy sector, the expected emission growth is substantial (almost quadrupling between 2010 and 2030). However, RAN-GRK states that 1,444 Mt CO2e in 2030 is distinct from the 1,669 Mt CO2e in 2030 assumed in the NDC. This difference is in line with different assumptions on overall economic growth (being the main driver of emissions in the energy sector): In RAN-GRK, the economy is assumed to grow 5-6%. In contrast, Indonesia’s first NDC refers to an economic growth target of between 6 and 8% per year, which is clearly above the historical growth of 4.6% to 6.5% between 2000 and 2012 (Government of Indonesia 2015). For the energy sector, the expected emission growth according to RAN-GRK is largely due to the estimated increase in coal-fired power generation, which is closely linked to the country’s energy strategy. However, the details of some BAU assumptions seem unrealistic, for example, “no additional renewable capacity after 2010” or coal “power generation efficiency remains constant after 2010”; See also: Climate Action Tracker, “Indonesia,” https://climateactiontracker.org/countries/indonesia/targets/, accessed on 11 July 2022, “[BAU] used in NDC project emissions which are well above current policy projections. In fact, Indonesia is likely to achieve its targets (except forestry) without additional effort, while still doubling its current emissions.”


251 Ibid.

252 Ibid.
estimates that Indonesia's 2030 non-AFOLU BAU emissions are likely to be only 1,102 million metric tons of CO2e by 2030, a 90% increase from 2010.\textsuperscript{253} This is almost half the BAU in NDC.

139. The NDC projects Indonesia's average annual growth in the energy sector to be 6.7% but provides no evidence that this is likely to happen, especially given the average annual growth from 2000 to 2012 was 4.7%, and grid Indonesia's main electricity grid is experiencing overcapacity, and yet more power plants will come online.\textsuperscript{254} The IMF projects Indonesia's GDP to grow at the peak of 6% in 2023, but then only by 5.2% per year in 2027.\textsuperscript{255} Thus, growth in the energy sector at 6.7% annually seems very unrealistic.

140. Suppose the estimation of BAU 2030 from independent observers (1,102 million metric tons of CO2e) is correct. In that case, Indonesia's promised unconditional mitigation scenario (CM1, allowing 1,706 million metric tons of non-AFOLU CO2e emissions by 2030) will increase by 55% compared to BAU's 1,102 million metric tons of CO2e. Unconditional mitigation scenario (CM2, enabling 1607.35 million metric tons of CO2e non-AFOLU emissions by 2030) still increasing by 45% above the BAU of 1102 million metric tons of CO2e.\textsuperscript{256}

141. Therefore, Indonesia's NDC target is inadequate to achieve the goal of limiting the increase in global average temperature to 1.5°C. To align with the 1.5°C IPCC scenario, Indonesia needs to limit its emissions from 660 to 687 million metric tons of CO2e by 2030. This means that there is a gap in the ambition of 1,005 million metric tons of CO2e (versus the conditional target) to 1,351 million metric tons of CO2e (versus the unconditional target), or a slight decrease from the 2010 level (92.41% compared to the 2010 level).

\textit{c) Indonesia allocates available resources to support carbon-intensive industries disproportionately compared to viable alternatives that will be more beneficial for the fulfillment of human rights}

142. Despite Indonesia's significant contribution to global emissions and climate change risks to the Indonesian people, the Government plans to continue increasing Indonesia's GHG emissions and delaying carbon neutrality until 2060. Indonesia decides to mobilize the maximum available resources in significant quantities to support carbon-intensive industries and ignore viable alternatives that are more beneficial for fulfilling human rights.

143. Key examples of the Government's failure to ensure policies aligned with energy sector decarbonization and LULUCF are:

144. \textbf{National planning projects an increase in national emissions}


a) Indonesia’s 2020-2024 National Medium-Term Development Plan (RPJMN), used as a projection of Indonesia’s lower range policy plans, could lead to emission levels of 1.136 million metric tons of CO2e/year (excluding LULUCF) in 2030, down from 1.222 million metric tons of CO2e/year before the impact of COVID-19.

b) All of the scenarios reviewed in Indonesia’s Long-Term Strategy for Low Carbon Development and Climate Resilience (LTS-LCCR) confirm that Indonesia only plans to reduce its emissions by 2030 at the earliest.257 Two of the three scenarios rely on a steady increase in emissions through 2050, with peak emissions projected at 2.454 million metric tons of CO2e.258 The most ambitious scenario in the Long-Term Strategy, which is the only scenario compatible with the Paris Agreement, would result in carbon neutrality in ’2060 or earlier’ with peak emissions in the year 2030 and a rapid decline after 2030.259 However, the Government has not officially adopted the scenario and does not yet have a carbon neutrality target. Thus, until now, it is uncertain when Indonesia plans to achieve carbon neutrality.

c) Indonesia relies on carbon-intensive industries for growth rather than more sustainable development alternatives. The scenarios proposed in the Long-Term Strategy in Indonesia ignore evidence from Bappenas that the emission reduction path leading to carbon neutrality emissions in 2045 will be more economically and socially beneficial for the country.

d) The consequences of this carbon-friendly development plan can be observed concerning development funding. Even though the RPJMN 2020-2024 has prioritized climate change and Indonesia has allocated the APBN as the 'climate budget,' a significant amount of spending that is characterized as 'mitigation' spending finances carbon-intensive projects:

- The largest expenditure on mitigation from all ministries is absorbed by the Ministry of Public Works and Public Housing which spends Rp. 112.62 Trillion, with the Director General of Highways’s largest expenditure for the reduction of greenhouse gases in the transportation sector. Ironically, most of these funds are used to increase the capacity of roads, bridges, and toll roads to reduce congestion,260 which is questionable whether it reduces greenhouse gas emissions instead of increasing GHG emissions.
- The largest expenditure on Energy and Mineral Resources, which amounted to Rp 3.46 trillion, was absorbed by the Directorate General of Oil and Gas, with the majority of the absorption financing the program for the transition of domestic fuel to gas.261 This amount is greater

257 Indonesia, the Long Term Strategy for Low Carbon and Climate Resilience 2050 (LTS-LCCR) offers three scenarios: (i) the current policy scenario (CPOS), (ii) the transition scenario (TRNS), and (iii) the low carbon scenario that fits target of the Paris Agreement (LCCP). See Government of the Republic of Indonesia, “Indonesia’s Long-Term Strategy,” p. 32-33.
258 In CPOS, emissions will increase rapidly after 2030 and reach 2,454 Mton CO2e in 2050. While in TRNS, the increase in emissions after 2030 is much slower than CPOS and will reach 1,526 Mton CO2e in 2050. See: Ibid., p. 33.
259 Ibid.
260 Ibid., p. 37.
then the budget used by ESDM to build energy efficiency infrastructure and renewable energy.\textsuperscript{262}

e) On the other hand, Indonesia squandered post-pandemic opportunities for sustainable economic recovery. Currently, Indonesia only allocates 4\% of the total USD 6.3 trillion of the national economic recovery stimulus to green sectors, such as investment in renewable energy, low emission transportation, energy efficiency, and nature-based mitigation and adaptation solutions.\textsuperscript{263}

145. Increasing dependence on fossil fuels

a) Despite the plan to become carbon neutral, Indonesia is continuing the construction of all coal-fired power plants planned in the 35,000 MW program and has signed a PJBL with PLN. Since the start of the program in 2015, Indonesia has added […] MW of capacity from coal-fired power plants, which will bind Indonesia to emit greenhouse gases by […] over the next year. In addition, PLN’s General Plan for the Provision of Electricity (RUPTL) in 2021, even though PLN calls it a “Green RUPTL,” was still projected to add 13,800 GW of new capacity from coal-fired power plants by 2030. This addition will lock Indonesia into 83 million tons of carbon emissions annually for 20-30 years.\textsuperscript{264}

b) Nearly all of Indonesia’s National Strategic Projects (PSN) in the energy sector are carbon-intensive projects with fossil fuels, which include the construction, expansion, and upgrading of oil refineries, development of oil and gas fields, construction of gas networks, and transmission of gas pipelines, coal gasification facilities, and coal to methanol.\textsuperscript{265}

c) Indonesia has been actively increasing fossil fuel emissions. By 2020, fossil fuel sources will provide 82\% of Indonesia’s generated power, and coal accounts for nearly two-thirds of it.\textsuperscript{266} Based on the 2016 to 2017 average, Indonesia provided IDR 30.953 trillion and more than IDR 9.702 trillion fiscal support each year for coal-fired electricity consumption and coal-fired electricity production, respectively.\textsuperscript{267}

d) In the energy sector, Indonesia plans to release 1,233 million metric tons of CO2e to 1,355 million metric tons of additional CO2e of GHG by 2030,\textsuperscript{268} more than double today’s emissions and more than six times (654\%) of 1990 emissions. The Updated

\textsuperscript{262} ESDM absorbs IDR 3.1 Trillion for energy efficiency and renewable energy infrastructure throughout 2018-2020. See: Ibd.


\textsuperscript{265} List of National Strategic Projects for the Energy Sector. See: Indonesia, Peraturan Presiden tentang Perubahan Ketiga atas Peraturan Presiden No. 3 Tahun 2016 tentang Percepatan Pelaksanaan Proyek Strategis Nasional, Perpres No. 109 Tahun 2020, LN No. 259

\textsuperscript{266} Tahun 2020, Lampiran, Tabel 1 “Proyek.”


NDC still plans for 69% of energy to come from fossil fuels by 2050,\textsuperscript{269} which is certainly not to be called “decarbonization.

e) Whereas on the other hand, a study in 2021 concluded that deep decarbonization of Indonesia's energy system by 2050 is technically and economically feasible, using 100% renewable energy if supported by the right policies.\textsuperscript{270} In this scenario, the energy share of renewable energy in primary energy grows rapidly to around 80% in 2040 and finally reaches 100% in 2050.\textsuperscript{271} This scenario will create 3.2 million jobs by 2050\textsuperscript{272}

f) In 2017, IRENA developed a renewable energy roadmap that will enable Indonesia to increase its share of renewable energy in power generation to 38% by 2030.\textsuperscript{273} Following this roadmap will save between US$15.6 billion and US$51.7 billion in reduced healthcare costs by reducing air pollution and saving US$1.7 billion per year to energy systems.\textsuperscript{274}

146. No coal eradication

a) Although the Government (ESDM) has stated its intention to achieve carbon neutrality in the energy sector by 2060,\textsuperscript{275} Indonesia has not taken sufficient action to implement this goal. IEEFA’s 2021 analysis shows that there is nothing new in the MEMR’s carbon neutrality plan. All coal-fired power plants that have signed a Power Purchase Agreement (PPA) will continue to be built.\textsuperscript{276} The government has not drawn up any plans for early retirement from coal-fired power plants. Approximately 16 GW of the new coal capacity of the 35 GW program will remain operational between 2021 and 2030.

b) Despite promises to phase out coal by 2040, Indonesia refuses to sign commitments to stop issuing new permits, halt construction, and end direct government

\textsuperscript{269} The NDC update refers to the National Energy Policy, where the 2050 energy combination is only targeted at 31% new and renewable energy, while 69% is fossil fuels as follows: “b) oil must be less than 25% by 2025 and less than 20% by 2025; c) coal at least 30% in 2025 and at least 25% in 2050; and d) gas at least 22% in 2025 and at least 24% in 2050” See: \textit{Ibid.}, p. 6.

\textsuperscript{270} IESR, Agora Energiewende, and LUT University, \textit{Deep decarbonization of Indonesia’s energy system: A pathway to zero emissions by 2050}, (Jakarta: Institute for Essential Services Reform, 2021). Key policy recommendations include: (a) immediately taking bold decisions: Making deep decarbonization of Indonesia’s energy system a top priority; (b) ensuring that energy system planning reflects a clear decarbonization pathway; (c) encouraging multi-stakeholder participation in decarbonization efforts; (d) Implementing appropriate policies to achieve deep decarbonization targets.

\textsuperscript{271} \textit{Ibid.}

\textsuperscript{272} \textit{Ibid.}


\textsuperscript{274} \textit{Ibid}, p. 5.


support for coal-fired power projects without emission reduction facilities.\textsuperscript{277}

c) In addition, Indonesia is increasing its coal production target instead of reducing production. In 2022, Indonesia targets coal production to reach 663 million tons or 38 million tons more than the 2021 target.\textsuperscript{278}

d) This policy is supported by Indonesian law, which was previously amended to incentivize Indonesia to become more dependent on the coal sector. In 2020, Indonesia passed amendments to the Mineral and Coal Mining Law (“Minerba Law”) which provides zero percent royalties to coal businesses that integrate mining and value-added activities and guarantees the extension of existing coal concessions for up to 20 years.\textsuperscript{279} Even though the Constitutional Court later declared the guarantee for the extension of the concession unconstitutional, the zero percent royalty provision still applies today. This action not only resulted in a net loss of current royalty revenues but also engineered an increase in the market value of coal and made alternative renewable energy sources appear less competitive.

e) These government incentives for coal are in line with coal's central role in Indonesia's plans for its energy transition: support for co-firing technology and clean coal.\textsuperscript{280} In the 2050 Carbon Neutral Climate document from the Minister of Energy and Mineral Resources, the energy transition depends on three main initiatives based on the core of 'Coal-fired power plant innovation': (a) co-firing and converting diesel-fueled power plants to renewable energy; (b) carbon capture utilization and storage (CCUS); and (c) clean coal technology.\textsuperscript{281} Indonesia's updated NDC defines 'clean coal technology to include ultra-supercritical and super-critical coal combustion technologies.\textsuperscript{282} Although they are more efficient, these technologies still produce significantly higher greenhouse gas emissions than renewable energy alternatives.

f) Continued dependence on coal will continue to add carbon dioxide to the atmosphere, while its economic benefits are questionable. For example,
projects such as coal gasification require 6 million tons of coal to form 1.4 million tons of Coal Gas (DME) to replace Liquefied Natural Gas (LPG). The gasification investment project alone will certainly cause an additional 4.26 million metric tons of CO2e283, and the use of DME will cause an additional 12 million metric tons of CO2e/year.285 Ironically, this project is one of the projects prioritized and facilitated by the government as a ‘National Strategic Project,’ along with coal to methane and other fossil energy facilities, while none of the renewable energy projects is on the National Strategic Project list.286

g) In reality, the rapidly declining cost of renewable energy makes it financially feasible for the government to switch from consuming fossil fuels to a largely renewable energy system with far less GHG emissions. According to the World Energy Outlook 2020 report of the International Energy Agency, “solar and wind panels [...] are now the cheapest new sources of electricity in most markets.”287 Since 2010, the utility-scale solar photovoltaic energy cost has fallen by 85%.288 The cost of the wind power plant has also fallen by 56% over the last decade.289 The cost of offshore wind generation has decreased by 48% between 2010 and 2020.290

h) This global trend has been reflected regionally and in Indonesia. According to Wood Mackenzie, solar PV capacity in Southeast Asia is expected to triple by 2024,291 and the cost of leading battery storage systems in the Asia Pacific region is expected to fall by 30% by 2025.292 In Indonesia, there are two record low bids for projects floating diesel fuel in West Java and West Sumatra submitted for solar-diesel tender 2020.293 Bloomberg estimated last year that utility-scale PV will reach cost parity to new coal-fired power plants by 2023 and also be cheap enough

285 IEEFA, “Proposed DME Project in Indonesia.”
286 Indonesia, Peraturan Presiden tentang Perubahan Ketiga atas Peraturan Presiden No. 3 Tahun 2016 tentang Percepatan Pelaksanaan Proyek Strategis Nasional, Presidential Decree No. 109 of 2020, LN No. 259 Year 2020, Appendix, Table 1 “Project” no. 193 and 194.
289 Ibid.
290 Ibid.
to outperform existing coal.\textsuperscript{294} Solar system storage “tends to be cost-competitive to new coal and gas generation in this decade.”\textsuperscript{295}

147. Deforestation

a) The government persists in supporting deforestation. The loss of forest cover not only has a significant impact on ecosystems but also means the loss of ‘carbon sinks’ that bind GHG emissions and mitigate climate change impacts.

b) Based on the updated NDC, in the forestry sector, Indonesia plans to continue to allow deforestation of 325,000 Ha annually between 2020-2030.\textsuperscript{296} In comparison with the previous decade, Indonesia planned to deforest 450,000 Ha from 2013 to 2020. Cumulatively, LTS-LCCR Indonesia is still planning 6.8 million Ha of deforestation between 2020 – 2050.\textsuperscript{297} It is vague for what activities this deforestation quota will be allocated.

c) Indonesia's deforestation quota is used to support the National Food Estate Improvement program, which is one of the National Strategic Programs.\textsuperscript{298} In aggregate, this program converts 2.3 million Ha of land, including many forest areas that include forest protected areas, into monoculture plantation areas in North Sumatra, Central Kalimantan, East Nusa Tenggara, and Papua.\textsuperscript{299} The government provides support for facilitating the provision of forest areas from the Ministry of Environment and Forestry through Permen LHK No. 24 of 2020, in addition to other procedural facilities as a National Strategic Project, as described in Section 4.4.3. The total funding allocated for this program reaches IDR 1.2 trillion.\textsuperscript{300}

d) In addition, even though Indonesia has permanently terminated new permits on natural forests and peat,\textsuperscript{301} Indonesia has failed to resolve the problem of overlapping palm oil plantation concessions in forest areas. As of 2022, The Audit Board of Indonesia (BPK) estimates that there are 2.9 million hectares of oil palm land in forest areas.\textsuperscript{302} Instead of enforcing the law, Indonesia has repeatedly granted amnesties that condone these violations, including in 2012, 2015, and the last in 2020 through the Job Creation Act.\textsuperscript{303}


\textsuperscript{295} Ibid.

\textsuperscript{296} Indonesia, “Nationally Determined Contribution (Updated 2021, corrected version),” Annex 1, p. 23.


\textsuperscript{298} Indonesia, \textit{Peraturan Presiden Tentang Perubahan Ketiga atas Peraturan Presiden No. 3 Tahun 2016 tentang Percepatan Pelaksanaan Proyek Strategis Nasional}, Presidential Decree No. 109 of 2020, LN No. 259 Year 2020, Appendix, Table 2 “Program.”


\textsuperscript{300} Ibid.

\textsuperscript{301} Indonesia, \textit{Instruksi Presiden tentang Penghentian Pemberian Izin Baru dan Penyempurnaan Tata Kelola Hutan Alam Primer dan Lahan Gambut}, Number 5 year 2019.

\textsuperscript{302} BPK, \textit{Ikhtisar Hasil Pemeriksaan (IHPS) BPK Semester-II Tahun 2021}, (Jakarta: Badan Pemeriksa Keuangan, 2021), p 82-83.

e) On the other hand, Indonesia did not renew the palm oil moratorium even though the problem of oil palm plantations encountered in forest areas, including primary forests, was still unresolved. In Papua alone, during 2001-2019, 870,995 Ha of primary forest in forest areas was turned into oil palm plantations and was estimated to have released around 104 million metric tons of carbon. However, instead of implementing law enforcement and improving governance, Indonesia will use the provisions in the Job Creation Law to complete improvements to palm oil governance, which includes provisions for “whitening” business headlong in forest areas and extending the time for processing the legality of its business.

f) Through the same law, Indonesia has also loosened several key provisions that increasingly provide disincentives for deforestation. Law No. 11 of 2020 concerning Job Creation (Job Creation Law) dismisses the Government's obligation to maintain at least 30% of the total area of watersheds and/or islands in its territory as forest areas, and instead provides broad discretion for the Government to regulate the areas that must be maintained “according to the physical and geographical conditions of the watershed and/or island.”

g) The omission of deforestation above is genuinely counterproductive to the Government's climate change mitigation efforts which are very focused on downstream handling. From 2018-2020, KLHK absorbed IDR 4.52 Trillion for efforts to restore peat in seven provinces, of which were largely a consequence of past deforestation, conversion of peatlands into HTI, oil palm, and food estate concessions.

148. As described above, Indonesia provides significant support for carbon-intensive projects — some of which are framed as 'climate change mitigation,' when in fact, diverting available resources away from actual, lower-emissions solutions. The government provides many facilities and allocates a large number of public funds for 'national strategic projects', including large amounts of dirty energy, large-scale plantations, and infrastructure that results in deforestation that contributes to Indonesia’s high greenhouse gas emissions. 

149. The government has wrongly justified its continued support for carbon-intensive sectors—and hence its failure to adopt robust climate mitigation measures—because these sectors are necessary for economic growth and poverty reduction. Indonesia’s NDC highlights the “need to balance ... emission reductions and economic development” in defining its long-term climate strategy.
The Government of Indonesia is also seeking to use the UNFCCC’s “shared but distinct responsibility” principle to justify its weak climate policy. However, while this principle may be relevant, it does not fully protect Indonesia from its human rights obligations, as discussed in Section 4.3.

150. On the other hand, the Government of Indonesia cannot persist in justifying its support for the fossil fuels necessary for economic development and poverty alleviation when there are economically viable and sustainable alternatives available that will advance the realization of human rights.

151. While it is true that Indonesia’s historical emissions are relatively low compared to some more developed countries, Indonesia has an obligation to prevent human rights violations as a result of its current policies described above. Indonesia can and should do more to protect the rights of the Plaintiffs, meanwhile, Indonesia denies it with arguments about insufficient resources to drastically reduce emissions.

152. In summary, the global decline in the costs of renewable energy and storage, coupled with favorable economic conditions for Indonesia’s renewable energy sector and the long-term benefits of avoided deforestation and unsustainable land-use change in the forestry sector, suggest that the Indonesian government has not “dedicated resources to maximum available” for climate mitigation – and thereby acting in violation of its human rights obligations.

d) Indonesia cannot justify the allocation of its resources to carbon-intensive sectors based on human rights because these sectors cause human rights violations at the grassroots

153. Contrary to Indonesia’s claim that heavy fossil fuel policies promote poverty alleviation, Indonesia’s dependence on deforestation and fossil fuels is detrimental to the poor and vulnerable.

154. In its NDC, Indonesia justifies its plan to continue emitting carbon by referring to the need for development ‘to eradicate poverty,’ citing that about 11% of Indonesia’s population is below the poverty line.311 According to the NDC, ‘the Government of Indonesia projects development at least 5% per year to reduce the poverty rate below 4% by 2025.’312 At the same time, the NDC also clearly refers to the constitutional mandate to guarantee everyone’s right to obtain a decent and healthy environment and seek a balance of development in the present and the future as well as priorities for poverty alleviation.313

155. However, there is no scientific evidence to support the Government’s claims that fossil fuel-based growth and deforestation will benefit the poor and vulnerable. Studies conclude that the achieved growth of the fossil fuel industry and related sectors of deforestation has, in fact

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310 Indonesia, "Nationally Determined Contribution (Updated 2021, corrected version),” p. 4.
311 ibid., p. 1.
312 ibid.
313 ibid.
benefited the few and sacrificed the lives and basic rights of the poorest while increasing vulnerability to climate shocks, as follows:

a) Energy sector

- In the energy sector, for example, research and investigations have confirmed that profits from Indonesia's largest coal mining activities are concentrated within a few politically powerful oligarchs.\(^{314}\)

- With its high dependence on coal energy, Indonesia is particularly exposed to transition-related risks, such as displaced assets, with around one million jobs at risk.\(^{315}\) In the energy sector, the costs of extracting and using fossil fuels involve livelihoods, health, sustainability, material, and other basic rights of the people who share their living space with these activities, as has been widely witnessed by the National Commission of Human Rights.

b) LULUCF

- Significant evidence shows that the profits from industrial deforestation are concentrated among a handful of concessionaires. In the case of palm oil, for example, 2018 research found that 25 palm oil groups were responsible for more than 13,000 ha of rainforest clearance since 2015\(^{316}\). Meanwhile, research in 2020 found several corporate groups controlling palm oil refining and export markets.\(^{317}\)

- Contrary to the benefits, mismanagement of land following the acquisition of palm oil leaves traces of impact, the costs of which are borne by the state, indigenous peoples, local villagers, or local residents. National Commission of Human Rights commissioned comprehensive documentation of this injustice in a national inquiry on the rights of indigenous and tribal peoples,\(^{318}\) which found that one of the root causes of rights violations was 'development policies that bias economic growth resulting in the birth of policies that give priority to large-scale economic efforts to improve state revenue, through the granting of exploitation and conservation permits in customary areas and state apparatus and/or security forces that better protect c policies that give priority to large-scale economic efforts to improve state revenue, through the granting of exploitation and conservation permits in customary areas and state apparatus and/or security forces that better protect company interests.\(^{319}\) National Commission of Human Rights found that 'illegal or legal exploitation of natural resources in customary areas which have been exploited by many parties illegally or “legally”'


\(^{319}\) Ibid., p. 58.
have had tremendous impacts, including environmental damage and pollution, threats of violence and physical conflict, disturbances to public health, especially women’s reproductive health, contamination of hazardous materials used in nature of gold mining and palm oil plantations, and the clean water crisis. Many other reports support these findings, including a series of reports, including 2019 and 2021, by Human Rights Watch.

- In addition, the degradation of acquired and converted land costs the lungs of entire cities and districts by increasing fire risk and increasing GHG emissions. These effects are often exacerbated by intentional burning initiated by corporate interests. The haze caused by palm oil concessions has been the subject of numerous government litigation, all directed against the giant corporations that benefit from the practice of burning. In December 2021, 230 community members directly affected by the fires in Central Kalimantan filed another complaint to the National Commission of Human Rights, targeting 80 palm oil concession holders and 13 industrial plantation concession holders suspected of being responsible for the fires.

156. National Commission of Human Rights has also handled many complaints about human rights violations caused by the direct impacts of mining and coal burning, deforestation, and land use change; and has formed various recommendations for countries. In 2019, the National Commission of Human Rights received 53 human rights complaints related to agrarian conflicts arising from the plantation sector, 41 complaints from the infrastructure sector, and 20 complaints from the mining and environmental sectors, making up 71.8% of the total number of complaints filed related to agrarian matters (33%, 26%, and 12.8%, respectively). Many of these recommendations have not been implemented.

157. By continuing to depend on fossil fuels and deforestation for growth, Indonesia will not achieve the dual goals of sustainable development and the protection of human rights. It may achieve the illusion of growth by increasing GDP for the benefit of the few at the cost of human rights abuses for many.

4.4.2. The government has failed to build adequate resilience and adaptation to the current and projected impacts of climate change in Indonesia

158. While Indonesia understands its vulnerability to climate change and recognizes the impact of climate change on the enjoyment and promotion of human rights, the Government’s actions

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320 Ibid., p. 65.
322 Indonesian Center for Environmental Law, Catatan Awal Tahun 2019, (Jakarta: Indonesian Center for Environmental Law, 2019), p. 3.
are inconsistent with the responsibility to build resilience and adequate adaptation to the impacts of climate change, now and in the future:

a) By prioritizing carbon-intensive development, Indonesia increases climate vulnerability in many areas, making adaptation extremely difficult and expensive;

b) Disaster risk reduction and adaptation measures that Indonesia has adopted in the NDC are not well integrated into existing social, environmental, and budgetary policies at the domestic level;

c) Indonesia fails to ensure that social protection mechanisms are in place to reduce vulnerability to disasters and climate-related stresses;

d) Indonesia prioritizes infrastructure-based, carbon-intensive adaptation actions, and ignores nature-based adaptation actions

As described in Section 4.4.1., Indonesia’s development strategy still relies heavily on carbon-intensive activities. Apart from contributing to increasing greenhouse gas emissions, these carbon-intensive sectors also increase land vulnerability. For example, the Government’s priority toward large-scale monoculture by converting forest areas has increased vulnerability in Sintang, which was a major factor in the flooding experienced by Plaintiff Tiwi. In 2001 to 2021, Sintang lost 530,000 Ha of land cover, of which 145,000 Ha was primary forest. In addition to the Sintang area itself, deforestation also occurred in other districts along the Kapuas watershed, with a total of 659,518 Ha. Auriga Nusantara found that there were 162 oil palm plantation permits covering an area of 1,135,650 Ha and 35 business permits for the use of timber forest products in industrial plantation forests with a total area of 1,209,056 Ha. Both the President and the Governor of West Kalimantan acknowledged that the damage to this watershed was the main cause of Sintang flooding. Even though after the flood the Government stated it would prioritize watershed rehabilitation, in fact, Sintang is still targeting an increase in the number of oil palm concession areas.

Another example of increased vulnerability due to deforestation can be seen in the impact of clearing forest land for cassava food estate of 30,000 Ha in Gunung Mas Regency, Central Kalimantan, which has now resulted in reduced catchment areas along the Tambun and Tampelas River basins. This increases vulnerability, where land conversion itself has contributed to flooding in the villages of Tawai Baru.

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325 Global Forest Watch, “Indonesia, Kalimantan Barat, Sintang,” https://www.globalforestwatch.org/, accessed 30 June 2022; Auriga Nusantara data shows a slightly different amount, i.e. 118,855 Ha of deforestation.


160. On the other hand, government support for alternatives that increase climate resilience, such as agroecology or small-scale polycultures, is very imbalanced compared to support for large-scale monocultures. In fact, the CPI study in Berau discovered that diversification of small-scale agricultural commodities could increase economic resilience, providing up to 800% higher incomes than monoculture oil palm. Meanwhile, agroecology helps reduce dependence on fossil fuels in food production, "either by increasing absorbent carbon in soil organic matter and aboveground biomass and by avoiding carbon dioxide or other greenhouse gas emissions from agriculture by reducing direct and indirect energy use."  

161. Dependence on coal-fired power plants increases the vulnerability to health impacts due to air pollution. For example, 22 coal-fired power plants around Jakarta have and will increasingly contribute to Jakarta's air pollution, which increases Jakarta's vulnerability when humidity and temperature factors exacerbate the behavior of pollutants in the air, especially ozone and fine particulates (PM 2.5). Plaintiffs RX is witnessing this impact and is concerned about the health impacts it will have in the future as climate change worsens.

162. Now, with the warming of 1.1°C, Indonesia is already experiencing vulnerabilities that require a very large allocation of resources for adaptation, even if adaptation can still be done. In Indonesia's Third National Communication to the UNFCCC Secretariat in 2017, Indonesia projected the need for adaptation in 2015-2020 to reach IDR 840 trillion. BNPB, in its evaluation of Indonesia's 2011–2020 disaster data, noted that "more than 98% of the events that occurred were hydrometeorological disasters," which according to BNPB, "tends to continue to increase every year, [partly due to] global climate change." In 2017, BNPB noted that the use of disaster management budgets increased in proportion to the number of disasters, from

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330 Tempo Magazine, Main-Main Lumbung Pangan, 53034/11-17 October 2021
332 Ibid. P. 31.
333 Ibid.
In addition, the adaptation and disaster risk reduction measures that Indonesia has adopted in the NDC are not well integrated into existing social, environmental, and budgetary policies at the domestic level. Even though Indonesia already has the RAN-API for Climate Change Adaptation (RAN-API) for pre-2020 adaptation measures, which are continued in the NDC and the post-2020 NDC Adaptation Roadmap, these plans were not implemented properly, at least in areas where the Plaintiffs were experiencing climate impacts:

a) Plaintiffs RX, Tiwi, and DD did not receive an early warning that allowed them to prepare for the extreme weather that befell them. Even though BMKG already has an application with an early warning feature for extreme weather, the application can only be accessed by cell phone owners with certain features, requires a stable cellular connection, and in some locations, it can only be accessed by people with access to certain knowledge. For example, in the context of Seroja, only fishermen in Oesapa who have attended a weather information field school know the early warnings from the BMKG application via their respective mobile phones. Despite receiving early warning information, Plaintiff BE explained that fishermen in Lasiana, NBD, ignored these warnings and went to sea because they thought the warnings were far-fetched and the cyclone “never happened.”

b) The Seroja cyclone incident in Kupang damaged small-scale fishing vessels showing how adaptation measures were not well integrated into regional and sectoral development planning. For example, even though Plaintiff Dewa has repeatedly communicated the vulnerability of ships being damaged every year (range 5-18 ships) due to waves and strong winds, he was not aware of any follow-up actions taken by the Government to respond to these vulnerabilities. Plaintiff Radith carries out all his coral rehabilitation activities independently. None of the fishermen Plaintiffs understand how the RPJMD for the City of Kupang and the Province of East Nusa Tenggara are planning adaptation programs for their area, either in the form of natural solutions such as planting mangroves and coral reefs, as well as planning for improvement of adaptation infrastructure. Plaintiff Dewa also highlighted several ineffective climate actions due to poor integration with the budget cycle. Mangrove planting in Oesapa, which was carried out by the Ministry of Environment and Forestry in November, was a waste of resources because within two months Oesapa would experience high wave peaks that will blow new mangroves with weak roots. Even though the Oesapa fisherman suggested that mangroves be planted in April, Plaintiff D found it difficult to do so because “we haven’t got the money from the budget that we proposed.”

c) In the agricultural sector, the Ministry of Agriculture is mandated to improve climate literacy on vulnerabilities and risks, strengthen local capacity on best practices,

improve knowledge management, and apply adaptive technology.\textsuperscript{341} However, the experience of Plaintiff Wazid in Sembalun, Plaintiff ZA in Demak, shows that this mandate has not been implemented properly at the site. For example, neither of them knew that the Ministry of Agriculture had an early warning system called “SIPETANI,” an application that is supposed to inform climate forecasts and their impacts, including potential floods and droughts, forecasts of plant-disturbing organisms (whether weeds, pests, or other organisms).\textsuperscript{342} In addition, neither of them received any recommendations on strategies that should be taken to deal with the risks of drought, flooding, pest attacks, or the choice of technology that can be used to adapt.\textsuperscript{343} This is partly because these recommendations do not yet exist for chili and onion commodities. Based on checking on the SIPETANI website, the available recommendations are still limited for controlling the main plant pest organisms in rice, corn, and soybeans for 2022, which are available in PDF form with more than one hundred pages.\textsuperscript{344}

164. Another example of an adaptation program that is not integrated with the budget policy is the Climate Village Program ("Proklim"). Proklim is a program that is oriented to building resilience, adaptation capacity, and decreased emissions in the smallest community units, i.e., at the RW or hamlet level to the village level.\textsuperscript{345} Proklim has produced a variety of the best practices of local resilience solutions, such as improving water absorption through biopore and Infiltration wells, rainwater reservoirs, conservation-based springs,\textsuperscript{346} use of natural predators for pest control,\textsuperscript{347} et cetera. However, the Proklim is not funded by the central government, and thus the Ministry of Finance has not evaluated how much public funding was used to fund the climate village in evaluating the climate budget.\textsuperscript{348} Proklim finance is sourced from the local government budget and the budget available at the district and village level,\textsuperscript{349} and often it was budgeted very minimally. For example, in 2019, DKI Jakarta budgeted Rp. 275 million for proklim.\textsuperscript{350} The budget in other provinces was not available in channels that the public could access.

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165. On the other hand, Indonesia prioritizes infrastructure-based, carbon-intensive adaptation actions and has not prioritized nature-based adaptation actions that increase resilience at the local level. For example, the largest absorption of Indonesia’s adaptation budget allocation is to the Ministry of PUPR, amounting to Rp. 35.52 trillion, which is used for the construction of dams, construction of flats, improvement of the quality of self-subsistent housing, normalization of rivers and construction/improvement of embankments, as well as the construction of raw water facilities. These infrastructure projects are necessary, though it can be counterproductive if “hard-engineered climate change adaptation projects have been undertaken without a proper environmental assessment.”

166. This has been experienced by Plaintiff ZA, whose vulnerability has been exacerbated by the dam project aimed at providing water for Demak in the dry season. The flood that damaged ZA’s onion crop in January 2021 was a direct impact from the dam’s infrastructure, which made the land where ZA planted onion very vulnerable to increased rainfall. This is an example of an adaptation program that fails to “prioritize green solutions,” and does not “carefully assess the impact of hard-engineered solutions.”

167. Dewa and the fishermen of Oesapa had the same experience. The breakwater embankment, which was built 10m in front of the residents’ houses, was “very detrimental because every year the tin roof of the house has to be replaced because rocks hit it from the breakwater.” The development process was never discussed with the residents, who only discovered the project after seeing the signboard.

168. ZA’s and Dewa’s experiences represent many other examples in the national context, where a range of hard-to-process adaptation projects have become streamlined as National Strategic Projects (PSN). These hard solution projects include [48] dam projects across Indonesia and one sea wall in three provinces. As will be explained in Section [4.3.3.], one of the conveniences that PSN gains are the relaxation of environmental impact assessment requirements and community involvement in projects.

169. On the other hand, Indonesia’s resource allocation for “soft engineering solutions, such as mangrove rehabilitation or other natural barriers to flooding” has not been optimized. In fact, these solutions “in many cases can be sustainable and make islands more resistant to sea movement, without the need for expensive and heavy construction.” In contrast to the budget allocated to hard, nature-based solutions,

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352 Ibid., p. 60.
354 Ibid.
355 Ibid., p. 69.
357 National strategic project no. 180, coastal embankments in the provinces of DKI Jakarta, West Java and Banten, See: Ibid., Table 1, Appendix,
359 Ibid.
which have the multiple benefits of fulfilling rights and gaining a relatively low budget. For example, the adaptation budget used by the Ministry of Environment and Forestry in 2018 to prepare social forestry areas was IDR 328.5 billion, or 0.9% of the PUPR adaptation budget. Meanwhile, KKP only used IDR 87.4 billion.

170. In addition, the implementation of soft solutions is often ineffective. In Oesapa, for example, mangrove planting happened in November, while the largest wave occurred in January. The government ignored the Oesapa fisherman's suggestion to move the planting time to April because "the funding was only then approved in September."

171. Eventually, even though Indonesian legislation has provided social protection mechanisms to reduce vulnerability to disasters and climate-related stresses, at least for Plaintiffs and fishermen, Indonesia still fails to ensure these mechanisms are implemented and have an impact on their beneficiaries.

172. For example, fishing Plaintiffs affected by cyclone Seroja should receive protection from fishermen's insurance, which is based on Law no. 7 of 2016 concerning the Protection and Empowerment of Fishermen (the “Fishermen Act”) should cover damage to boats and fishing gear due to climate change. The “risk guarantee for fishing, fish cultivators and salt businesses” in the law states that risk insurance covers “loss or damage to fishing facilities,” caused by “the impact of climate change.” This risk coverage is “provided in the form of fishery insurance.” However, in practice, JASINDO, the fisheries insurance provider, does not provide coverage covering the risk of fishery facilities damages such as boats, boat engines, and fishing gear. For fishing fishermen, the available insurance only covers the risk of death, permanent disability, and medical expenses due to accidents, as well as natural death compensation.

173. Another example is farmers' protection from the impacts of climate change in agricultural insurance, which Plaintiffs Wazid and ZA should enjoy. Law No. 19 of 2013 concerning the Protection and Empowerment of Farmers (“Farmers Law”) requires the Government to provide protection from crop failure losses, including the effects of “climate change impacts,” in the form of farmer insurance. In its implementing regulation, this insurance includes “crop insurance,” covering “food crops, horticulture, and plantations.” However, in practice, the protection provided by JASINDO for food crops only covers rice.

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361 Ibid., Tabel 8: Komposisi Anggaran Mitigasi dan Adaptasi Kementerian dan Lembaga Tahun 2018.
362 Article 3 letter e of the Fisherman Empowerment Law explicitly states that the purpose of the law includes “protecting from the risk of natural disasters, climate change, and pollution.” See: Indonesia, Law on the Protection and Empowerment of Fishermen, Fish Cultivators, and Fish Farmers, Law no. 7 of 2016, LN No. 68 of 2016, TLN No. 5870, Article 3 letters e.
363 Ibid., Article 30 paragraph (2) letter a and paragraph (3) letter c.
364 Ibid., Article 30 ayat (4).
365 Indonesia, Minister of Marine Affairs and Fisheries, Decree of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia concerning Technical Guidelines for Assistance for Fisherman Insurance Premiums for the Fiscal Year 2021, No. 31 of 2021, Part C, p. 5.
366 Indonesia, Law on the Protection and Empowerment of Farmers, Law no. 19 of 2013, LN No. 131 of 2013, TLN No. 5433, Article 37 paragraph (1) and paragraph (2) letter d.
367 Indonesia, Minister of Agriculture, Regulation of the Minister of Agriculture of the Republic of Indonesia concerning Facilitation of Agricultural Insurance, No. 40/Permentan/SR.230/7/2015, Article 8 paragraph (1).
commodities through the Rice Farming Business Insurance. As a result, Plaintiffs Wazid and ZA, both of whom do not farm rice commodities, are unable to protect themselves from the risks of climate change.

174. The examples of failure above show that even though Indonesia already has commitments and adaptation roadmaps on a national scale, the Government still fails to build adequate resilience and adaptation to the current and projected impacts of climate change in Indonesia, especially in managing vulnerability to climate impacts in the smallest units of society.

4.4.3. Governments fail to fulfill their procedural responsibilities to ensure that all climate change mitigation and adaptation actions are inclusive, participatory, and equitable

175. The main failure of the government to ensure climate change mitigation and adaptation actions that are inclusive, participatory, and equitable is especially proven in the closure of policy-making processes that contradict Indonesia’s climate commitments. For example, the Government has taken steps to reduce public participation in carbon-intensive sectors, including by:

a) include a large number of carbon-intensive projects and adaptation of hard-engineered solutions on the list of 'national strategic projects (PSN), without transparency and participation in decision-making regarding which projects are included in the PSN list.

b) simplicity in the Job Creation Law for 'development in the public interest.' The Job Creation Law allows development activities for the public interest to modify the regional spatial plan (RTRW) instead of complying with the plan, and thus grants the project an opportunity to skip the process of public participation in determining the RTRW, including climate impact analysis in the Strategic Environmental Assessment. In addition, development activities in the public interest can modify changes in sustainable agricultural land use, are exempt from environmental impact assessment requirements, and are excluded from the requirement not to overlap with conservation areas. Land acquisition for this activity also does not provide options for owners or landlords to refuse the expropriation of land by the state.

c) weaken the requirements for community involvement in the PPLH Law, among others, by (i) reducing the elements that must be involved in public consultations on Environmental Impact Analysis (AMDAL), therefore environmental observers

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369 In Article 18 of the Job Creation Law, changes to spatial plans in less than five years are possible based on 'changes in national strategic policies.' See: Indonesia, Spatial Planning Law, Law no. 26 of 2007, LN No. 68 of 2007, TLN No. 4725, Article 20 paragraph (5), Article 23 paragraph (5) and Article 26 paragraph (6), as amended in: Indonesia, Job Creation Law, Article 18.
370 Revised Article 44 of the Law on Protection of Sustainable Agricultural Land. See: Indonesia, Job Creation Law, Article 122.
371 Addition of Article 19C of the Land Procurement Law. See: Indonesia, Job Creation Law, Article 121.
372 Ibid., PSN is excluded from the requirement (statement) outside forest area and outside the mining area and (statement) outside peatland/coastal conservation line.
373 Even though this provision is already in the Law on Land Procurement for Public Interest, the Job Creation Law strengthens the ease of land acquisition, such as with the automatic conversion of various land use statuses, which may prohibit project development to the status required by the 'location decision.' (Article 10 of the Land Acquisition Law). Previously protected land use status includes forest area, village treasury land, waqf land, and/or government/BUMN assets (Article 8 of the Land Procurement Law, see: Indonesia, Job Creation Law, Article 121.
and communities who are affected by all decisions in the AMDAL are not obliged to be involved. In addition, the mechanism for the provision of information in the Job Creation Law reduces the frequency, timeframe, and method of submitting information on activity plans.

176. In addition, in revising some substantive provisions in the energy and forestry sector that significantly facilitate carbon-intensive projects as described in Section 4.4.2., the Government ignored the aspirations of various groups – including those most affected by deforestation and the use of fossil fuels materials – and exclude them from the process.

177. For example, in the process of revising the Minerba Law in 2020, the communities and environmental organizations most affected by the problematic provisions amended or strengthened in the Law were not involved. Two communities who had been convicted of criminal charges against anyone who “obstructed or interfered with mining business activities” filed a petition for judicial review to the Constitutional Court. One of the main items tested was the guarantee that there would be no change in the use of space for Mining Business Permit Areas (WIUP) and Special Mining Business License Areas (WIUPK), which “violate the procedural aspects of the right to a good and healthy environment, i.e. the right to participate in decision making; [...] and the right to access justice.” In general, petitioners for the right to judicial review argue that changes in the law make community involvement more challenging, or even impossible.

178. Another example is the process of revising the Job Creation Law, which has drawn hundreds of demonstrations against it from various circles, including community groups affected by carbon-intensive projects and deforestation and environmental organizations. The Job Creation Law resulted in at least eleven applications for the right to judicial review and formal examination, five of which questioned the non-transparency and meaninglessness of the process of community involvement in the formation of the law. Two of them questioned the implications of changes in the law on reducing community involvement. Eventually, the Constitutional Court ruled in

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374 Amendment to Article 26 of the PPLH Law. See: Indonesia, Job Creation Law, Article 23.
375 The Job Creation Law replaces the requirement to ensure that announcements are made ‘in a way that is easily known to the public with announcements through the electronic system or other means determined by the central government. The law also reduces the number of announcements by eliminating the requirement to announce planned activities when a request for an environmental permit is received. In the Job Creation Law, the announcement is only made once when the Environmental Feasibility Decree (SKKLH) has been presented to the activity initiator. See Amendments to Article 39(1) and (2) of the PPLH Law in: Ibid.
376 Indonesia, Mineral and Coal Mining Law, Law no. 4 of 2009, LN No. 4 of 2009, TLN No. 4959, Article 162
377 Advocacy Team for the Minerba Law, “Application for Improvement of the Judicial Review of Law No. 3 of 2020, the arguments regarding Article 17A paragraph (2), Article 22A, Article 31A paragraph (2), and Article 172B of Law no. 3 of 2020,” https://www.mkri.id/public/filesimpp/berkasReg_3391_Perbaikan%20Permohonan%20Registrasi%20Cipta%20Kerja%20UU%20XIX%202021.pdf, accessed on 12 July 2022, p. 27.
378 Ibid.
380 Constitutional Court, Decision No. 4/PUU-XIX/2021, p. 145-150; Constitutional Court, Decision No. 103/PUU-VIII/2020, p. 173-174; Constitutional Court, Decision No. 6/PUU-XIX/2021, p. 24-25; Constitutional Court, Decision No. 107/PUU-XVIII/2020, p. 16-40; 56-62; Constitutional Court Decision No. 91/PUU-VIII/2020, p. 61, 83-87.
381 Constitutional Court, Decision No. 91/PUU- XVIII/2020, p. 61, 83-87.
at least one case that the establishment of the Job Creation Act was unconstitutional, one of which “regarding the principle of openness, it must include maximum and more meaningful public participation, which is the embodiment of the constitutional order in Article 22A of the 1945 Constitution.”

179. Eventually, even in terms of adaptation, climate change adaptation actions carried out by the Government have not fulfilled the obligations of transparency, inclusiveness, and public participation required by their human rights responsibilities. For example, as explained in Section 4.4.2., Oesapa fishermen were not involved in adaptation decisions that affected them, including constructing a breakwater embankment that destroyed their habitat, mangrove planting activities, or other activities. Plaintiff Radith also did not receive information on whether the government prioritized coral reef restoration in Kupang as part of climate change adaptation; and whether it can scale up its coral reef restoration with government support.

4.5. **By contributing to and exacerbating the predictable impacts of climate change, the Government has violated the human rights of the plaintiffs**

180. As explained in Section 4.4., the Government is aware of the impacts of climate change on the enjoyment of human rights. However, the Government still does not allocate the maximum available resources at the highest possible target in its mitigation actions; and instead continues to support carbon-intensive sectors with laws, policies, and even resources. These actions also exacerbate vulnerabilities at the site, which, combined with a lack of synergies to shut down adaptation to happen at the site, has led to multiple adaptation failures in areas already affected by climate events. Ultimately, government processes in their climate actions, including counterproductive ones, are minimally informed and accessible to the public. In this section, the Plaintiffs will describe how the government acts and omissions as described in Section 4.4. have led to violations of their human rights.

4.5.1. **By contributing to and exacerbating the predictable impacts of climate change, the Government reduces the plaintiffs' right to life (Article 28(A) of the 1945 Constitution) and the right to live in physical and spiritual prosperity in a good and healthy environment (Article 28H).**

181. Article 28A of the 1945 Constitution states, “Everyone has the right to live and maintain his life and existence,” and Article 28 H(1) of the 1945 Constitution states: “Everyone has the right to live in physical and spiritual prosperity, to have a place to live, and to enjoy a good and healthy living environment and have the right to obtain health services.

182. Article 28H of the 1945 Constitution contains three rights that are closely related to each other and must be interpreted together: the right to a good and healthy environment, the right to life, and the right to health. The Indonesian government has recognized this connection. For example, the PPLH Law mandates that environmental protection and management must “protect the territory of the Unitary State of the Republic of Indonesia from environmental pollution and/or destruction, to ensure safety, "

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382 Constitutional Court, Decision No. 91/PUU-XVIII/2020, p. 392-394; p. 413-414
383 Indonesia, the 1945 Constitution, Article 28A.
health, and human life... for the benefit of the present and future generations.” (Part 2 Article 3 of the PPLH Law). The Human Rights Act also frames these three rights in one article, guaranteeing “the right to live, maintain life and improve one's standard of living” along with the right [to live] in peace, safe, peaceful, happy, physically and mentally prosperous and the right to “a good and healthy environment.”

183. As described below, the government’s actions and omissions on climate change constitute a violation of Article 28H (1) of the 1945 Constitution as a whole and the three elements of rights within it: the right to a good and healthy environment, the right to life, and the right to health.

a) Right to a good and healthy environment

184. The enjoyment of almost all human rights depends on a healthy environment. The PPLH Law has interpreted that environmental protection includes a safe climate because the PPLH Law explicitly recognizes climate change as one of the most important environmental threats and includes specific regulatory tools to protect and manage the environment from the threat of climate change.

185. Governments cannot enforce the right to a good and healthy environment without taking action to ensure a safe climate and prevent predictable climate impacts. Climate change is associated with violating the right to a healthy environment, as it causes extreme weather and natural disasters, damages ecosystems, and endangers species.

186. International law recognizes that climate change undermines the right to a healthy environment. Following a UN Human Rights Council resolution of 2021 affirming that all States should work towards a “clean, healthy and sustainable environment” as a human right, the UN High Commissioner for Human Rights affirmed that this resolution “clearly recognizes environmental degradation and climate change as an interconnected human rights crisis.” Special Rapporteur David Boyd has determined that action on climate change is necessary to realize the right to a healthy environment, and that States must act appropriately: “States must not violate the right to safe climate through their own actions; must protect these rights so that third parties do not violate them, especially business people;

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384 Indonesia, Undang-Undang Perlindungan dan Pengelolaan Lingkungan Hidup, Article 3.
385 Indonesia, Undang-Undang Hak Asasi Manusia, UU No. 39 Tahun 1999, LN No. 165 Tahun 1999, TLN No. 3886, Article 9 ayat (1), (2), dan (3).
386 Indonesia, Law on Environmental Protection and Management, Section Considering letters a and e.
387 Indonesia, Law on Environmental Protection and Management, Article 10 paragraphs (2) and (4) (Environmental Protection and Management Plan or 'RPPLH'); Article 16 letter e (Strategic environmental assessment or 'KLHS'); Article 21 paragraphs (2) and (4) (standard criteria for damage due to climate change); Article 57 paragraph (4) (Preservation of atmospheric functions through climate change mitigation and adaptation); Article 63 paragraph (1) letter j (the government’s duties and authorities include establishing and implementing policies regarding the control of climate change impacts).
388 United Nations Resolutions 48/13 and 48/14 established special rapporteurs on human rights and climate change.
and must establish, implement and enforce laws, policies, and programs to fulfill that right.\textsuperscript{391} All Plaintiffs face the current and future impacts of climate change that interfere with the enjoyment of their right to a good and healthy environment, in particular a safe climate. All environmental changes due to climate change described in Section 4.1.1 has and will increasingly have an impact on the enjoyment of the Plaintiffs’ rights to the environment, for example:

a) Plaintiffs MA, J and Rasya have all experienced increased heat, even extreme heat, in Samarinda and Jakarta. As global warming increases, the frequency and intensity of hot days and urban heat islands are predicted to rise. All child Plaintiffs have experienced a much more significant hottest year than the previous generation. For example, plaintiff MA who is only seven years old has experienced some of the top record hottest years that Indonesia has ever recorded, i.e. 2016, 2019, and 2020.\textsuperscript{392} In the high emission scenario, in 2100, eastern Sumatra, eastern Kalimantan, and the eastern Java Sea can experience 10-40 days with temperatures above 40°C each year. Even if global warming reaches 2°C, almost all of Indonesia’s lowlands will become too hot to live in.

b) Extreme heat has brought drought in various areas, one of which is the residential place of plaintiff Wazid in Sembalun. In 2018 alone, drought affected 4.87 million Indonesians in 4,053 villages. Not only does drought impact access to clean water and agriculture, but drought also impacts the ecosystems that sustain their life. The extreme drought in NTB and NTT in 2020 caused forest fires, making NTB and NTT new centers of forest fires with a burned area of more than 352,222 hectares.

c) Plaintiffs RX and Tiwi have experienced extreme rainfall, which caused flooding in Malang and Sintang. Plaintiff DD has experienced a storm in Jayapura. BNPB, in its evaluation of Indonesia’s 2011 – 2020 disaster data, recorded 25,443 hydrometeorological events during the period 2011-2020, which were dominated by floods, landslides, and cyclones – mostly dominated by increased rainfall that fell in areas that already have vulnerability.\textsuperscript{392} Some parts of Indonesia, including Sumatra, Kalimantan, and small islands, are predicted to be wetter, creating a higher risk of flooding and landslides. With these hydrometeorological disasters, such as the experiences of Tiwi, RX, and DD, various other environmental problems that undermine the inner and outer well-being of those affected are present and require many years to recover.

d) Both extreme heat and extreme rainfall and unpredictable seasons also impact food crops, as has been experienced by Plaintiffs ZA and Wazid. Both witnessed an increase in pests and weeds along with an increase in humidity. Plaintiff ZA witnessed crop failure due to extreme rainfall, and Plaintiff Wazid witnessed a decrease in the quantity and quality of crop yields.

\textsuperscript{391}Ibid.
due to drought. Along with climate change, food crops will experience more threats for their availability and nutrients.

e) Claimant Dewa, MB, BE, AS, and Radith have experienced tropical cyclones affected by climate change. Cyclones destroy an important ecosystem that has supported their livelihoods, coral reefs, which help stabilize fish stocks. With the destruction of corals, fish stocks in Kupang waters decreased dramatically and did not recover yet. In addition, their chances of restoring coral reefs are overshadowed by the threat of warming resulting in coral bleaching, which plaintiff Radith had witnessed before the cyclone. The intensity of tropical cyclones will increase with climate change. By 2100, Indonesia could lose 25-82% of coral reef cover in the high emission scenario, reducing potential fish catches by up to 65%.

f) Plaintiff DD experienced tidal flooding and high waves in Biak, which have already occurred and will worsen as climate change worsens. This impact is already in sight: in eight years, 5.5 million s.d. 8 million people will be affected by flooding from the hundred-year storm surge. By 2050, several coastal cities and small islands will experience extreme sea level events every year in 2050. In 2070-2100, in the high emission scenario, more than 4.2 people in Indonesia will be affected by permanent tidal flooding.

188. In essence, by failing to take the necessary actions to reduce emissions to the highest possible ambition and build climate resilience, the government has violated Plaintiffs' right to a good and healthy environment and all the rights derived from it.

b) Right to life

189. The right to life is guaranteed in Articles 28A and 28H(1) of the 1945 Constitution. Article 28A states, “Everyone has the right to live and maintain one's life and existence.”

190. The right to life is the most basic human right derived from all other rights. To protect this right, the government has an obligation not to take actions that result in arbitrary deprivation of life, and an obligation to protect against the deprivation of life by private actors. States can violate the right to life by exposing victims to real risks of deprivation of life, even if “threats and situations do not result in loss of life.”

191. National Commission of Human Rights has previously accepted that, in protecting [enforcing] the right to life, the state is obliged to prevent health injury and death from predictable environmental factors. In the legal opinion of a court friend presented by the National Commission of Human Rights in Melanie Subono, et al. v. President of the Republic of Indonesia et al. National Commission of Human Rights concluded that the government’s failure to control air pollution in Jakarta violated the right to life, the right to a good and healthy environment, and the right to health. National Commission of Human Rights implicitly acknowledges

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393 Indonesia, the 1945 Constitution, Article 28A.
395 ibid., p. 7.
that premature deaths are due to environmental factors, both existing and projected, including in the scope of protection of the right to life. National Commission of Human Rights also shows that in exercising the right to life, the state has a positive obligation to preserve and protect the environment from climate change and other dangers caused by public and private actors.

192. The United Nations Human Rights Committee has defined climate change as one of “the most urgent and serious threats to the ability of present and future generations to enjoy the right to life.” United Nations Special Rapporteur on Human Rights and the Environment, John H. Knox also emphasized that a good and healthy environment is “necessary for the full enjoyment of human rights, including the right to life.” As section 4.1 points out, an increase in the global average temperature above 1.5°C will cause environmental damage and cause death due to climate impacts on an unprecedented scale. Preventing and protecting from the climate crisis is integral to ensuring the right to life. With the intensification of climate change, the government has an obligation to prevent life-threatening hazards that can threaten the lives of the Indonesian people.

193. Under international law, to uphold the right to life, states must take effective mitigation and adaptation measures to prevent the foreseeable loss of life due to climate change. The Human Rights Committee has found that: Implementation of obligations to respect and guarantee the right to life, and in particular life in dignity, depends, among others, on measures taken by States parties to preserve the environment and protect it from harm, pollution and climate change caused by public and private actors.

194. The Plaintiffs presented evidence of the current and future dangers of climate change threatening their lives:

a) As described in section 4.1, climate change exacerbates natural disasters that cause loss of life. Following the extreme and unexpected rainfall

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398 Ibid.
403 Ibid., p. 7.
in Malang city, plaintiff RX was the victim of a flash flood that killed seven people. Meanwhile, plaintiff Tiwi witnessed four people missing or dead because of the Sintang flood. Plaintiff DD experienced a storm in Jayapura that killed seven people. These stories are just examples of thousands of other extreme weather events where lives are at risk. BNPB, in evaluating Indonesia's 2011-2020 disaster data, recorded hydrometeorological events during this period resulting in 4,180 deaths and missing. 405

b) Increased extreme rainfall and flooding due to climate change have increased potentially fatal vector-borne diseases, such as dengue fever and malaria, which plaintiffs MA, RX, and DD have experienced. The global incidence of dengue fever has increased due to climatic factors and will experience an expansion and increase in infectiousness along with climate change. So is malaria, which will threaten Indonesia's 308 million citizens by the 2070s. Plaintiff DD has had malaria, and plaintiff Wazid has witnessed an outbreak of malaria in the neighboring village.

c) At least one-third of current extreme heat deaths globally are due to climate change. The statistic is likely to be higher (potentially over 50%) in Southeast Asia. 406 Children are particularly vulnerable to heat-related illnesses. As children living in Jakarta, plaintiffs MA, J, and Rasya have experienced extreme heat that poses a risk to their health. In fact, plaintiff MA and his sibling were exposed to extreme heat at a very vulnerable age, before they were one and two years old. This risk will increase with global warming.

d) Globally, climate change is predicted to cause about an additional 83 million cumulative deaths in a “business as usual” scenario. 407 Plaintiffs MA, J, and Rasya, who are now only seven to 15-year-olds, face an increased risk of premature death from increased extreme weather and natural disasters due to climate change, if the increase in global average temperature is not limited to 1.5°C.

195. In summary, governments have violated the petitioners' right to life by causing and exacerbating the foreseeable risk of lethal harm from climate change and failing to take adaptive action to minimize these risks.

c) Right to health (physical and spiritual prosperity)

196. Governments have an obligation to prevent foreseeable harm to health from climate change. Article 28H(1) of the 1945 Constitution defines health as “physical and spiritual prosperity”; Law No. 36 of 2009 on Health (the “Health Law”) 408 also defines ‘health’ broadly to include a physical, mental, spiritual, and social condition and the ability to lead a

407 R. Daniel Bressler, “The mortality cost of carbon,” Nature Communications, Vol. 12, No. 4467 (2021), Fig. 3.
socially and economically productive life. The Human Rights Act specifically protects for children to "obtain proper health and social security services, according to their physical and mental spiritual needs."

197. The National Commission of Human Rights has determined that the obligation to protect the right to health includes the provision of affordable health facilities and services in accordance with the state's financing capacity, balanced with the ability of individuals to protect their own health.

198. The National Commission of Human Rights has previously acknowledged that the fulfillment of the right to health relies on protecting the environment. For example, in a series of cases regarding the environmental impacts of cement mining projects on farmers, the National Commission of Human Rights concluded that the government's failure to control the negative impacts of activities that damage the environment (cement factories) has the potential to violate the right to health, as well as the right to a good and healthy environment and right to water.

199. In international law, the right to health is defined as an absolute obligation to ensure access to essential food, basic shelter, and safe water, ensure non-discriminatory access to health care (especially for marginalized groups) and adopt national strategies to address public health. Governments must meet these minimum requirements while taking steps towards fully realizing the right to health.

200. In order to fulfill the absolute minimum obligation to uphold the right to health, governments should do their utmost to tackle climate change. The World Health Organization has recognized that climate impacts undermine basic health safeguards; “Climate change threatens to exacerbate current health problems – deaths from extreme weather, cardiovascular and respiratory diseases, infectious diseases and malnutrition – as well as damage water and food supplies, infrastructure, health systems, and social protection systems.”

201. The UN Human Rights Council has emphasized that governments “have a clear obligation to take steps to prevent and ameliorate the negative impacts of climate change on the right to health, including those related to environmental and social determinants of health.” The Committee on the Children Rights has recognized that climate change is “one of the greatest threats to children's health” and has

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409 Ibid., Article 1 point 1.
410 Ibid, Human Rights Law, Article 62.
411 Ibid, p. 26. Supreme Court, Decision No. 63/PUU-X/2012. The rights referred to include Article 28H paragraph (1) (right to a healthy and safe environment), Art. 28H paragraph (3) (social security rights), Article 34 paragraph (2) (state duty to develop social security), and Article 34 paragraph (3) (state obligation to provide proper health care facilities). See also Supreme Court, Decision No. 11-14-21-126 and 136/PUU-VII/2009.
412 Joko Prianto, et al. and the Indonesian Environment Forum v. Governor of Central Java (Defendant I) and PT Semen Gresik (Persero), now PT Semen Indonesia (Persero) Tbk (Defendant II). See: PTUN Semarang, Decision no. 064/G/2014/PTUN.SMG.
urged States Parties to place children’s health concerns at the center of their climate change adaptation and mitigation strategies.\textsuperscript{416} 

202. In addition to the above-mentioned life-threatening health hazards (in relation to the right to life), Plaintiffs face further current and future health losses due to climate change:

a) As described in Section 4.1., extreme weather and natural disasters exacerbated by climate change can cause a variety of diseases, from vector-borne diseases to cholera. Plaintiff Tiwi and plaintiffs fishermen experience itching when facing the Sintang flood and the Seroja Cyclone. Plaintiff Tiwi witnessed an increase in dengue fever cases after the Sintang flood receded.\textsuperscript{417} Hydrometeorological events exacerbated by climate change have had significant direct health impacts. BNPB noted that hydrometeorological disasters during 2011 – 2021 in Indonesia had resulted in 8,102 people being injured or sick.\textsuperscript{418} This figure does not include the health impacts that followed the disaster, such as diarrheal outbreaks, malnutrition, dengue fever outbreaks, or other vector-borne diseases.

b) Rising temperatures and heat waves associated with climate change combined with high humidity in Indonesia result in heat stroke, exacerbation of existing diseases, and decreased productivity and work capacity related to the physical capacity to manage heat. Plaintiffs ZA and Wazid, whose jobs as farmers require being outdoors, and whose homes are not air-conditioned, also have to manage hot days in Demak and Sembalun. The five fishermen plaintiffs in Kupang, all of whom also live in non-air-conditioned houses and have to do outdoor activities for their livelihood, have experienced the same exposure.

c) Children are more vulnerable to climate change because of their unique metabolism, physiology, and developmental needs. Children and adolescents are particularly vulnerable to physical ailments such as asthma, allergies, malnutrition, stunting, fatigue, and infectious diseases exacerbated by climate change.\textsuperscript{419} Child plaintiffs MA, J, Rasya, and their colleagues are at increased risk of this health disorder.

d) Child plaintiff MA has experienced extreme hot days in Samarinda, and child plaintiffs J and Rasya already face a higher risk of contracting sickness from Jakarta’s extreme heat. They are among the 820 million children globally who are now “highly exposed” to heat waves.\textsuperscript{420} High temperatures can cause dehydration, heat exhaustion, heat stroke, respiratory disease, and kidney disease; children are especially vulnerable to these effects.\textsuperscript{421} As plaintiffs J and Rasya age

\textsuperscript{416} CRC, “Komentar Umum 15,” p.50.  
\textsuperscript{420} UNICEF, “The climate crisis,” p. 27.  
\textsuperscript{421} UNHCR, “Laporan Kantor Komisaris Tinggi PBB untuk Hak Asasi Manusia,” https://documents-dds-ny.un.org/doc/UNDOC/GEN/G17/110/91/PDF/G1711091.pdf?OpenElement, accessed on 12 July 2022; See, for example, Johns Hopkins
in an exponentially warming world, they will be increasingly exposed to these dangerous health risks.

e) Children are also vulnerable to psychological harm due to climatic realities. Understanding that climate impacts are increasing in frequency and severity, making life in Indonesia even more dangerous, plaintiffs experience anxiety related to the impacts of climate change. As explained in Section 4.1., the phenomenon of “climate anxiety” is a hardship, and children with chronic climate anxiety conditions are more vulnerable to developing more severe mental health conditions later in life. Not only child plaintiffs, some young adult plaintiffs, such as RX and DD, reported experiencing similar anxiety. Plaintiff RX even had trouble sleeping which he suspected was related to his anxiety about the future in relation to climate change.

f) Climate change exacerbates problems with access to health services. BNPB noted that during 2011 – 2021, hydrometeorological disasters had damaged 753 units of health facilities. WHO calculates that the direct costs of global health damage due to climate change could reach between USD 2-4 billion/year by 2030. Regions with weak health infrastructure, including rural/remote areas in Indonesia, will be the least able to cope with this impact without assistance. Plaintiff Wazid in Lombok already has difficulty accessing health services because he lives in a remote village, away from medical facilities. He would be much more vulnerable if climate change carried an increased risk of malaria to his home. In 2018, the neighboring district, West Lombok, experienced a malaria outbreak that should be declared an extraordinary event. Despite the East Lombok District's hard work to eliminate malaria has paid off, malaria is expected to spread to tropical highland areas where medical response and population immunologists may not be prepared to cope.

203. In essence, governments have violated the plaintiffs' right to health by contributing to and exacerbating the risk of foreseeable health hazards from climate change and failing to take adaptive steps to minimize these risks.

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424 UNICEF, “Kecuali Kita Bertindak Sekarang,” p. 48
4.5.2. By contributing to and exacerbating the predictable impacts of climate change, the Government has violated the rights of the Plaintiffs to develop themselves through the fulfillment of basic needs (Article 28C(1) of the 1945 Constitution)

204. The 1945 Constitution guarantees the right to self-development by fulfilling basic needs. Article 28C(1) of the 1945 Constitution states that "Everyone has the right to develop oneself through the fulfillment of one's basic needs [...]." The protection of this right is also emphasized in the Human Rights Law, "Everyone has the right to fulfill one's basic needs to grow and develop properly, " and "Everyone has the right to live and have a decent life."

205. Although in the 1945 Constitution and the Human Rights Law this elaboration of the right to self-development is formulated concurrently with the right to education and the right to science and culture, in international human rights law, the right to self-development reflects the international framework on the right to development and right to an adequate standard of living.

206. The UN Special Rapporteur on the Right to Development identified climate change as "one of the adverse global trends that pose challenges to the exercise of the right to development." The Special Rapporteur emphasized that the climate crisis, combined with natural disasters and new global pandemics, has "the potential for to regress development by decades."

207. Article 1(1) of the Declaration on the Right to Development, adopted by the United Nations General Assembly, states: “The right to development is an inalienable human right because every human person and everyone has the right to participate in, contribute to and enjoy economic development, social, cultural and political, in which all human rights and fundamental freedoms can be fully realized.”

208. Within the 'right to development framework, States are responsible for formulating policies aimed at the “continuous improvement of the well-being of the whole population and of all individuals,” with “comprehensive development” as one of the core elements of this right. That is, development is not defined solely in terms of economic growth but as a multi-dimensional “process” with social, cultural, political, economic, and environmental elements.

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426 Indonesia, Undang-Undang Hak Asasi Manusia, Article 11.
427 Ibid., Article 40.
428 Article 28C paragraph (1) of the 1945 Constitution reads: "Everyone has the right to develop oneself through the fulfillment of one's basic needs, has the right to education and benefits from science and technology, art and culture, in order to improve the quality of one's life and for the welfare of mankind."
431 United Nations, Declaration of the Right to Development, GA Res. 41/128 (4 December 1986), Appendix 41 Supplement to UN GAOR. (No.53) 186, UN Doc. A/41/53 (1986) [hereinafter DRD or Declaration], Article 1(1).
432 Ibid., Article 2 paragraph (3).
434 Ibid., paragraph 11.
other core elements are the responsibility of the state in fulfilling this right, including respect for all human rights, participation, equality of opportunity and non-discrimination, equality, social justice, and international cooperation.\footnote{Ibid., paragraf 10-17.}

209. In ensuring the fulfillment of “basic needs” for all, the state is responsible for “taking all necessary measures for the fulfillment of the right to development and should ensure, among others, equal opportunities for all to access education, health services, food, housing, employment, and a fair distribution of income.”\footnote{United Nations, \textit{Declaration of the Right to Development}, Article 8 paragraph (1).} The Universal Declaration of Human Rights also highlights the meaning of “basic needs”: “Everyone has the right to a standard of living adequate for the health and well-being of oneself and of one’s family, including food, clothing, housing, and necessary medical care and social services...”\footnote{United Nations, \textit{Universal Declaration of Human Rights}, Article 25 paragraph (1).} International Covenant on Economic, Social and Cultural Rights, which Indonesia ratified in 2006, shares a common language regarding an adequate standard of living.\footnote{ICESCR, Article 11(1) states (emphasis added): “The States Parties to this Covenant recognize the right of everyone to an adequate standard of living for oneself and one’s family, including adequate food, clothing, and housing, and to the continued improvement of living conditions. States Parties will take appropriate steps to ensure the realization of this right, recognizing the importance of international cooperation based on free consent.”}

210. The impact of climate change on the right to development has a ripple effect across all human rights. Consistent with the Declaration on the Right to Development, the realization of the right to development requires respect for all human rights.\footnote{United Nations, Declaration on the Right to Development, Article 1 and 6.}

211. Climate change interferes with the plaintiffs' right to develop by meeting basic needs. The plaintiffs point out the following disadvantages to their right to develop:

a) Hydrometeorological disasters such as floods have damaged access to basic needs, including housing, clothing, food, and medical services. Plaintiff Tiwi witnessed the impact on her neighbors during a month-long flood in Sintang. Plaintiff RX witnessed a similar impact on a faster scale and more dire in intensity in Batu City and parts of Malang City during the flash flood. The five fishermen plaintiffs in Kupang experienced firsthand that the cyclone damaged their homes and means of livelihood. Plaintiff DD experienced storms and high waves, which damaged his house. This experience represents a similar experience across Indonesia. BNPB noted that during 2011 – 2021, hydrometeorological disasters displaced more than 37 people, damaged 462,666 housing units, and submerged more than three million housing units.\footnote{BNPB, “Satu Dekade Data Bencana Indonesia 2011-2020,” https://perpustakaan.bnpb.go.id/bulian/index.php?p=show_detail&id=2024, accessed on 12 July 2022.}

b) The government’s responsibility to ensure the fulfillment of “affordable, livable, accessible and culturally appropriate housing” – which is currently not fully realized for everyone – is becoming increasingly difficult to fulfill
as climate change worsens. With the threat of flooding increasing, along with changes in rainfall, Plaintiffs Tiwi and RE must reconsider whether it is safe to live in their hometown and how their family can meet their basic needs in the future. Plaintiffs Dewa, MB, BE, AS, and Radith, as well as plaintiff DD, have to incur costs to repair their homes and are at risk of having to repair their homes as climate change worsens continually.

c) Plaintiff Wazid, as a farmer in a remote area in Lombok, is finding it increasingly challenging to obtain the right to develop himself due to climate change. A similar story was experienced by Plaintiffs Dewa, MB, BE, AS, and Radith, who are small-scale fishermen in Kupang City. The strong bond with the land where the six plaintiffs live and work, which has allowed them to survive to this day, is threatened by drought, increasingly unpredictable seasons, and extreme weather. Climate change undermines Wazid's job opportunities and food security in the Lombok region, forcing small fishermen in Kupang to be unemployed for several months and start their business all over again while also reducing fish stocks and food security in Kupang City. While all of them already have to deal with limited access to basic services such as health care, climate change will widen the gap and aggravate Governments to work towards the full realization of their right to thrive.

d) For the child plaintiffs J and Rasya, climate change poses a major future threat to their right to develop and meet their basic needs. As the world heads toward catastrophic conditions in 2100, climate change could undermine their survival in every way, making it more challenging to access food and water, disrupting their education and work, and increasing their risk of life-threatening diseases.

212. In essence, by failing to take the necessary actions to reduce emissions to the highest possible ambition and build climate resilience, the government has violated the plaintiffs' right to thrive by meeting their basic needs.

4.5.3. By contributing to and exacerbating the predictable impacts of climate change, the Government has violated the rights of the Plaintiffs to food and water (Article 28C(1) and Article 28H(1) of the 1945 Constitution)

213. The right to food and the right to water is implicitly recognized in Article 28C(1) and Article 28H(1) of the 1945 Constitution; and “the right to fulfill their basic needs to grow and develop properly” in the Human Rights Law.442 The Constitutional Court has recognized this connection in the 2016 Value Added Tax material review, in which the Court stated that the right to food and water is part of the right to fulfill basic needs, which is part of the right to self-development, and the right to live in physical and spiritual prosperity.”443

442 Indonesia, Undang-Undang Hak Asasi Manusia, Article 11.
443 In the case of the Constitutional Court, Constitutional Court, the Constitutional Court Decision No. 36/PUU-XIV/2016, concerning Value Added Tax for staple foodstuffs, the Court emphasizes its recognition of the right to food as an
The right to food is also codified in Law no. 18 of 2012 concerning Food (the “Food Law”), which states, “Food is the most important basic human need, and its fulfillment is part of the human rights guaranteed in the 1945 Constitution.” The right to food is also reflected in the definition of “food sovereignty,” which is one of the objectives of the law, which is defined as “[...] independently determining food policies that guarantee the right to food for the people and which give the people the right to determine a food system that is in accordance with the potential of local resources.”

Implicitly, the Food Law recognizes that this creates an obligation for the government to ensure that “food must be available in a sufficient, safe, quality, nutritious and varied manner at prices affordable by people’s purchasing power, and not contrary to religion, belief, and community culture.” In addition, the Food Law expressly stipulates the obligation for the Government to “manage the stabilization of staple food supply and prices, manage the government’s basic food reserves, and the distribution of staple foods to achieve safe and nutritious staple food sufficiency for the community.”

The Constitutional Court has ruled that governments should recognize the diversity of definitions of “staple [food]” based on consumption habits in diverse local contexts in promoting the right to food. The responsibility to ensure the availability of “staple [food] materials” takes into account ecological factors (geophysical, environmental, socio-cultural, and food availability), economics (purchasing power, including prices and income), knowledge, and preferences. This is in accordance with the objectives of the Food Law which is to provide “diverse” food and “protect and develop the wealth of national food resources.”

Meanwhile, the right to water is also guaranteed in Law Number 17 of 2019 concerning Water Resources, which recognizes the principles of “state protection of the people’s right to water” and “environmental sustainability as one of the human rights.” This law requires the management of water resources to consider climate change factors.
218. The Indonesian courts have accepted that it is the government’s responsibility to uphold the right to water from the threat of environmental damage caused by human activities. For example, in 2016, in Joko Prianto et al., the Governor of Central Java and PT Semen Indonesia, the Supreme Court ruled on the approval of the environmental permit issued by the Governor of Central Java to the state-owned cement company PT Semen Indonesia after villagers from Kendeng filed a lawsuit against the company. In its consideration, the Supreme Court stated that the company’s mining actions in the area would violate the villagers’ right to water due to mining activities which would significantly reduce and pollute the water supply in the area.

219. In recognizing the right to food and water, the Indonesian courts also consider the fact that Indonesia is a party to several international treaties that recognize the right to food and the right to water. The Constitutional Court referred to the ratification of the ECOSOC Convention as a source of the government’s obligation to fulfill the rights protected in the agreement. Article 11 of the ECOSOC Convention recognizes the right to food, which includes the right to water.

220. International law supports the interpretation that States have a “primary duty” to protect the right to food, which includes the management and protection of resources that stretch far beyond producing and distributing food. As the Special Rapporteur on the Right to Food Hilal Elver detailed in her 2018 report, these areas of management could include “land, fisheries, and coastal community issues, business practices, infrastructure development projects, climate change, and natural disasters, and trade [emphasis added]” and “a supportive social, political, economic environment” and “culture, in which and through [the culture] access to food must be realized.” Governments also have a positive obligation to address the food and nutritional needs of the poor, those who are vulnerable to food scarcity and malnutrition, and those facing emergencies.

221. International law also guides on the obligations of governments to fulfill the right to water. The United Nations Committee on Economic, Social and Cultural Rights defines the right to water as “everyone’s right to sufficient, safe, acceptable, physically accessible and affordable water.

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453 Supreme Court, Decision No. 99PK/TUN/2016, p. 120.
455 Indonesia is a party to several international conventions that recognize the right to food, such as the Convention on the Elimination of All Forms of Discrimination against Women, the Convention on the Rights of Children, the Convention on the Rights of Persons with Disabilities, and the Convention on the Rights of Children. International Covenant on Civil and Political Rights.
457 The Committee on Economic, Social and Cultural Rights has explained that the protection of the ICESCR includes the right to water. See CESCR, General Comment No. 15: Right to Water, E/C.12/2002/11 (2003).
459 Other laws relevant to the right to food include the Forestry Law (No. 41/1999), Management of Coastal and Small Islands (No. 27/2007, recently amended), Fisheries (No. 45/2009 amendments No. 31/2004), Basic Agrarian Regulations (No. 5 of 1960), Protection and Empowerment of Farmers (No. 19/2013) and Protection and Empowerment of Fishermen, Fish Farmers, and Salt Farmers (No. 7/2016). The government has adopted policies and regulations to promote food and nutrition security, including Government Regulation no. 17/2015 and Presidential Decree No. 83/2017.
for personal and domestic use.”460 The Committee’s general comments provide that, “The amount of water available must comply with World Health Organization (WHO) guidelines. Some individuals or groups may require additional quantities due to health, climate or working conditions,” referring to the WHO study which requires a minimum of 20 liters per person per day.461

222. Climate change is one of Indonesia’s biggest threats to agriculture, food, and water security, and has disrupted the plaintiffs’ rights to water and food. The plaintiffs experienced the following impacts on their right to food and water:

a) Plaintiff Wazid, a farmer in Sembalun, experienced drought, excessive rainfall, and seasonal shifts, which greatly affected his crop yields. In dry years, drought forces it to reduce the frequency of planting or change its planting site; and significantly reduce the quality and quantity of crop yields. In a wet year, he experiences the impact of a long rainy season on his chili plants and faces more severe pest attacks. The decay of chili due to the prolonged rainy season is not only happening in Sembalun but also throughout Indonesia, which causes a decrease in the availability and a drastic increase in the price of chili, making this important commodity for the Indonesian people unaffordable for most people. Plaintiff ZA, a farmer in Demak, also faced similar challenges with his onion farm. The experience of plaintiffs Wazid and ZA is not only experienced by farmers throughout Indonesia. In Palembang, rising sea levels are causing flooding in rice fields and fish farms.462 A 20-year study of rice farming in Indonesia revealed that climate variability had extended the famine, resulting in months of late harvests and smaller sizes.463 Climate change is expected to reduce further soil fertility (some estimate 2-8%), decreasing domestic rice and maize yields.464 A major impact on the agricultural sector in Indonesia will lead to increased food scarcity problems.

b) Climate impacts such as extreme heat events, droughts, and natural disasters affect water resources and exacerbate water scarcity. The climate crisis is closely linked to the global water crisis. It was felt by plaintiff Wazid, who described the severity of the drought in West Nusa Tenggara that impacted the supply of clean water for drinking and agriculture. West Nusa Tenggara is one of the regions with the highest water scarcity, along with Lampung, Java, South Kalimantan, Sulawesi, and Maluku.465 The highest level of basic water stress in Indonesia, or the ratio of total water withdrawal to surface water supply and available renewable groundwater, is the


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460 The Committee on Economic, Social and Cultural Rights has explained that the protection of the ICESCR includes the right to water. See CESCR, General Comment No. 15: Right to Water, E/C.12/2002/11 (2003).
461 Ibid., paragraph 12(a).
464 Ibid.
highest in eastern Java. Inter-annual water variability is highest in North Maluku, categorized as very high. During the 2018 dry season alone, nearly 5 million Indonesians in more than 4,000 villages experienced the same experience as Wazid – leading to water shortages and agricultural disruption.

c) Climate change threatens the availability of food and water and access to them. As experienced by Plaintiffs Tiwi, RX, and the fishermen of Kupang, access to basic needs, especially food and drinking water, is very challenging in the midst of a hydrometeorological disaster. During the month of flooding in Sintang, Plaintiffs Tiwi and other flood victims depended on food and clean water supplies from other areas, which were mobilized as disaster relief. Tiwi experienced a surge in the prices of several commodities and the scarcity of other commodities during the flood. The fishermen of Kupang also experienced the similar, who were forced to survive on minimal food provided independently and through the assistance of humanitarian organizations. RX also had water access cut off due to flash floods in Batu without knowing when he would regain access.

d) Hydrometeorological disasters also cause prolonged food disruption at the local level, which can damage access, diversity, and affordability of food. For example, in Sintang, plaintiff Tiwi experienced scarcity and high prices for several basic commodities for months after the flood, such as vegetables and basic spices. In Kupang, the decline in fish stocks after Seroja, caused by the destruction of coral reefs and fish habitat in Kupang waters, disrupted the supply of marine protein that is critical to the coastal city, which may not recover to its former state for years to come.

e) Plaintiffs J and Rasya, as children, face a future where access to food and water is uncertain, and their availability is not guaranteed. Both Plaintiffs report feelings of fear and anxiety about the food and water crises that overshadow their future as adults in a climate-affected world. The concerns of these young Plaintiffs have a sound scientific basis; The IPCC projects that agricultural yield constraints range from moderate to high for Indonesia’s rice, corn and soybean commodities by 2050 when they are in their 30s-40s. Climate change affects weather patterns, water availability, frequency and intensity of natural disasters, and other disruptive impacts on agriculture, livestock, and fisheries sectors. Indonesia is expected to face multiple climate impacts that increase food security risks: heat waves and widespread forest fires will lead to loss of livestock, extreme droughts and rainfall will reduce crops, and warming oceans will destroy fisheries.

In summary, governments are violating the Plaintiffs’ rights to food and water, by contributing to and exacerbating the risk of foreseeable climate impacts on food and water access and availability and failing to take adaptive steps to minimize these risks.

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466 Ibid., p. 33.
467 Ibid., p. 35.
468 Intergovernmental Panel on Climate Change, “IPCC ART 6 WG II,”
https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_Annex-I.pdf , accessed on 12 July 2022, Lampiran 1, Angka Al.19, Al.20, Al.21 (page Al-22-24),
4.5.4. By contributing to and exacerbating the predictable impacts of climate change, the Government has violated the Plaintiffs' right to education

224. Article 28C paragraph (1) of the 1945 Constitution reads, "Everyone has the right to develop themselves through fulfilling their basic needs, has the right to education and benefits from science and technology, art and culture to improve the quality of their life and for the welfare of mankind." Article 31, paragraph (1) of the 1945 Constitution stipulates that "Every citizen has the right to receive teaching (education) in which the government organizes and administers a national education system regulated by law." This right is also emphasized in the Human Rights Law, "Everyone has the right to protection for one's personal development, to obtain an education, educate oneself, and improve the quality of one's life so that one becomes a human being who is faithful, devoted, responsible, noble, happy and prosperous in accordance with human rights."\(^\text{469}\)

225. Law no. 20 of 2003 concerning the National Education System ("Law on National Education System") and Law no. 12 of 2012 concerning Higher Education (the “Higher Education Law”) reflect the principles of democracy and equality of opportunity in education. Article 5 of the National Education System Law states, "Every citizen has the same right to obtain a quality education,"\(^\text{470}\) and "Every citizen has the right to have the opportunity to improve lifelong education."\(^\text{471}\)

226. In addition, the National Education System Law also obliges the Government and Regional Governments to provide services and facilities, provide quality basic education for every citizen without discrimination, and ensure the availability of funds for the provision of basic education.\(^\text{472}\) This is accompanied by compulsory basic education for all citizens. "every citizen aged seven to fifteen years,"\(^\text{473}\), and the obligation for parents to “provide” basic education.

227. The National Commission of Human Rights itself recognizes the importance of the right to education in Indonesia. The Ministry of National Education collaborates with the National Commission of Human Rights while conducting a pilot study to develop a model for human rights-based education in schools.\(^\text{474}\)

228. International treaties place some of the same core obligations on States, including providing free and compulsory primary education; making secondary education generally available and accessible with the introduction of free progressive education; making higher education equally accessible to all based on capacity, by every appropriate means; encourage or intensify “basic education” for students who have not received or completed basic education; improving the quality of education; improving material conditions for teaching staff; and abolishing discrimination and ensuring freedom of choice of education.\(^\text{475}\)

\(^{469}\) Indonesia, Human Rights Law, Article 12.

\(^{470}\) Indonesia, National Education System Law, Law no. 20 of 2003, LN No. 78 of 2003, TLN No. 4301, Article 5 verses (1).

\(^{471}\) Ibid., Article 5 paragraph (5).

\(^{472}\) Ibid., Article 11 paragraph (1) and (2).

\(^{473}\) Ibid., Article 6 a paragraph (1).

\(^{474}\) In particular, the National Commission of Human Rights provided input in the pilot study in Cianjur (West Java) in 1998-1999.

\(^{475}\) The main international treaties to which Indonesia is a party and which protect the right to education include the International Covenant on Economic, Social and Cultural Rights (1966), the International Convention on the Elimination of All Forms of Racial Discrimination (1965),
The impact of climate change disrupts education and development and interferes with the progressive realization of the right to education. The failure to adequately respond to climate change has had a direct and continuing impact on the plaintiffs' right to education. The Plaintiffs experienced the following impacts on their right to education:

a) Plaintiff MA, who was eager to return to face-to-face teaching and learning activities after the pandemic, was forced to be absent for a week due to dengue fever. Post-illness recovery also reduced MA's quality in learning. The right to health and the right to education are interconnected, and climate change is obliterating both.

b) Plaintiffs J and Rasya, as school children in Jakarta, have experienced an increase in the frequency and intensity of hot days in Jakarta, which can interfere with the quality of their learning.

c) Hydrometeorological disasters, which occur with increasing frequency and intensity due to climate change, can also disrupt education. Plaintiff ZA experienced a month of flooding as extreme rainfall forced schools to close for eight days, and caused damage to educational facilities and other critical infrastructure. BNPB noted that during 2011 – 2020, hydrometeorological disasters damaged 6,455 units of educational facilities. In 2021, 1,755 units of facilities were damaged by disasters, of which 99.54% were hydrometeorological disasters. This figure does not include the disruption of children's access to education during displacement, illness, or post-disaster trauma.

d) The right to food and water is also intertwined with the right to education in the same way. Climate impacts on access to food and nutrition can harm children's mental and physical development, thereby impairing their capacity to participate in education actively. As families dependent on subsistence agriculture or fishing lose their livelihoods due to climate impacts; increased poverty is also detrimental to access to education for children and youth. Plaintiff AS, whose income has been severely reduced due to the decline in fish stocks after Cyclone Seroja, still needs to pay for his children's education. Because he prioritized his son's school fees, Plaintiff BE was forced to borrow money to repair his boat to return to earning a living.

e) Plaintiffs MA and J have only attended primary school level; they still have to exercise their right to secondary and potentially higher education. However, children like them face several climate risks that could

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Ibid., p. vi and 7.

The Committee on Children's Rights has explained further by asserting that 'Loss of areas for subsistence agriculture or access to fishery resources has implications for children's rights to education and cultural rights when traditional ways of life are closely linked to the environment are eliminated.' See: CRC, "REPORT OF THE 2016 DAY OF GENERAL DISCUSSION: Children's Rights and the Environment," https://www.ohchr.org/sites/default/files/Documents/HRBodies/CRC/Discussions/2016/DGDoutcomereport-May2017.pdf, accessed on 12 July 2022.
hinder future access to education. For example, rising sea levels and natural disasters can cause climate displacement, with young people forced to leave their homes and face periods of instability when they cannot go to school. Climate change is also putting girls such as plaintiff J (and girls) at higher risk of losses due to existing gender-based inequities. This means that girls’ right to education is more likely to be disrupted by the above climate impacts.

230. In summary, by contributing to and exacerbating the risk of predictable climate impacts that disrupt education and failing to take adaptive steps to minimize these risks, the government is violating the right of young Plaintiffs to education.

4.5.5. **By contributing to and exacerbating the predictable impacts of climate change, the government violates the plaintiffs’ right to work and earn a decent living**

231. Article 27, paragraph (2) of the 1945 Constitution states, "Every Indonesian citizen has the right to work and a decent living for humanity." The right to work is reinforced in Chapter XA (Human Rights) of the 1945 Constitution, where Article 28D paragraph (2) states that "Everyone has the right to work and receive fair and proper remuneration and treatment in an employment relationship."

232. The Human Rights Law elaborates in more detail the rights related to decent work, including the right of every citizen to decent work “according to their talents, skills, and abilities,” and the right of every person to “freely choose the job one likes and also has the right to fair employment conditions," and the right of every person “to perform work commensurate with one's human dignity” to receive “fair wages in accordance with one's achievements and can ensure the survival of one's family.”

233. The Supreme Court of the Republic of Indonesia has considered that the fulfillment of the right to a decent living requires the fulfillment of the right to a good and healthy environment in ADUPI, et al. v. Governor of Bali Province, “Human rights cannot be obtained by everyone, including the human rights of citizens to work, to get fair and proper remuneration in employment relations (vide Article 28D paragraph (2) of the 1945 Constitution of the Republic of Indonesia (UUD NKRI 1945), and the human rights of citizens to choose the work they like freely, both men and women doing the same work in doing work commensurate with their human dignity (vide Article 38 of the Human Rights Law) if the environment is damaged and polluted. The fulfillment of human rights can only be realized in a good and healthy environment.”

234. In international law, the right to work includes the basic right to choose work freely, the right to just and favorable conditions of work, and the right to protection against

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481 Indonesia, Undang-Undang Hak Asasi Manusia, Article 38 ayat (1).
482 Ibid., Article 38 ayat (2).
483 Ibid., Article 38 ayat (4).
unemployment. 485 It also includes “equal pay for equal work, opportunities for a decent living for [ourselves] and [our] families, fair and safe working conditions, and reasonable restrictions on working hours.”486 The Committee on Economic, Social and Cultural Rights further elaborated that the right to work “should be appropriate,” which respects the basic rights of the human person and the rights of workers in terms of work safety and remuneration conditions.487 In addition, the Committee specifically states that “domestic and agricultural work should be properly regulated by national legislation so that domestic workers and farms enjoy the same level of protection as other workers.” For the State, this means an obligation to adopt, as quickly as possible, “measures aimed at achieving full employment.”

235. The effect of climate change on certain economic activities, and therefore on livelihoods in the affected sectors, directly impacts the right to work.488 The adverse effects of climate change on the right to work are recognized by the Human Rights Council, which stated that “the adverse effects of climate change have various implications,” including on the right to work.490 Climate change has already had an impact. It will continue to impact job security in climate-vulnerable sectors, such as agriculture and fisheries, where livelihoods depend on weather patterns or natural assets, such as fish stocks, which are vulnerable to climate change.491 This is exacerbated by the difficulty of detecting and relating the long-term impacts of climate change to the livelihoods of Indonesians. As historical data shows, it is common for people to get in and out of adversity by season, and this change is driven by annual and inter-year climate variability. This shift has been and will continue to be exacerbated by the impact of climate change on climate variability.

236. Especially for small fishermen and farmers, whose livelihoods are highly dependent on environmental conditions, Indonesia has also recognized climate change as one of the threats, as shown among other things in the definition of farmer protection, “Farmers Protection is all efforts to help

485 The right to work is enshrined in: Article 6, International Covenant on Economic, Social and Cultural Rights, Article 8, paragraph 3(a), International Covenant on Civil and Political Civil Rights (ICCPR) (ratified by Indonesia on February 23, 2006); Article 5, paragraph (e)(i), International Convention on the Elimination of All Forms of Racial Discrimination (ratified by Indonesia on 13 September 1984); Article 11, paragraph 1(a), of the Convention on the Elimination of All Forms of Discrimination against Women (ratified by Indonesia on 13 September 1984); Article 32 of the Convention on Children Rights (ratified by Indonesia on 5 September 1990); and Articles 11, 25, 26, 40, 52 and 54 of the International Convention on the Rights Protection of All Migrant Workers and Members of Their Families (ratified by Indonesia on 31 May 2012).


488 Ibid.


Farmers face difficulties in obtaining production infrastructure and facilities, business certainty, price risk, crop failure, high-cost economic practices, and climate change,"^{492}; and one of the objectives of the Fisherman Protection Act “to protect against the risks of natural disasters, climate change, and pollution."^{493}

237. Given the impact of continuing climate change on the livelihoods of Indonesians, including the plaintiffs, the Indonesian government is obligated to address violations of their right to work and prevent further violations. Some examples of violations that have occurred include the following:

a) Plaintiffs ZA and Wazid, who carry out agricultural activities in Demak and Sembalun, have faced a decline in crop production due to bad weather patterns which could multiply economic pressures and threaten their choice to work as farmers. Wazid's desire, who grew up in a farming family in Sembalun and has been farming for generations as part of his village culture, is to maintain this livelihood and improve the welfare of farmers in his village, which is threatened by climate change. ZA, who started his career as a farmer with the hope of making a living from farming, has already had to bear significant economic losses with repeated crop failures due to floods, unpredictable weather, and pest attacks. In the scenario of worsening climate change impacts, both will be forced to face increasing occupational risks, such as heat exhaustion. Today, 17.7 million Indonesian farmers are over the age of 45, with 3.8 million of them over the age of 65, meaning that they will soon be or already have a higher susceptibility to heat exhaustion, heat illness, or death. Combined with the threat of climate change to rainfall, drought, changing weather patterns, and pest attacks, this can force farmers to shift to other jobs.

b) Plaintiffs Dewa, MB, BE, AS, and Radith, fishermen in Kupang, are experiencing a rapid increase in occupational safety risks due to climate change. Plaintiff Dewa explains that the days that Kupang fishermen can go to sea safely diminish as extreme weather increases, and fishermen who have an understanding of the dangers involved will choose to lose their income rather than risk their lives. In addition, high waves and strong winds destroy Kupang fishing boats regularly every year – in Oesapa alone, dozens of boats are damaged each year, while Cyclone Seroja damages 80% of fishing boats in Kupang. This damage to work tools causes enormous economic pressure for fishermen, forcing fishermen to be in a situation of unemployment for months. In addition, Seroja has resulted in the loss of coral reef ecosystems and reduced fish stocks in Kupang waters, which has significantly affected their livelihood viability. Plaintiff AS, who works as a seller of fish caught by fishermen, is only able to earn Rp. 20,000.00 per day on average after cyclone Seroja, because the reduced supply of fish increases the buying price of fishermen, while the selling price is limited by the people's purchasing power. This is a real threat, which will increase in probability as warming increases,

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^{492} Indonesia, Law on the Protection and Empowerment of Farmers, Article 1 paragraph (1).
^{493} Indonesia, Law on the Protection and Empowerment of Fishermen, Fish Cultivators, and Salt Farmers, Article 3 letters e
which could impact the livelihoods of more than 2.8 million fishermen, whether those who fish in the sea, rivers, or through aquaculture.

c) The impact of climate change has more impact on the livelihoods of the poor and marginalized. As the IPCC has recognized, weather and climate events affect the lives and livelihoods of millions of poor people. This is because poor and marginalized people usually have the least buffer to deal with even the simplest climate hazards and suffer the most from consecutive events with little time to recover. Small changes in rainfall, short periods of extreme temperatures, or strong local winds can harm livelihoods. Climate change also often acts as a threat multiplier, meaning that the impacts of climate change add to the driver factors of other poverty. For example, fishermen plaintiffs in Kupang recounted how many other fishermen had to borrow money to repair their boats to return to work. This is exacerbated by the lack of access to formal financial institutions and the inability of fishermen to meet loan requirements at banks, which has caused some fishermen to get into debt or be forced to borrow money at unfair interest rates. Even though none of the plaintiffs was afflicted by the vicious cycle of loan misfortune, at least one plaintiff was forced to borrow Rp 15 million from the cooperative to rebuild his boat and fishing gear.

d) Child plaintiffs MA, J, and Rasya, will experience a decrease in job availability as they get older. They will still be in their productive age, around 30 to 40 years old when increasing climate change impacts are projected with high confidence will limit the availability of livelihood options, and climate impacts such as extreme heat will complicate productive work.

4.5.6. By not considering the best interests of children in its climate actions, the Government has violated children's rights

238. Article 28B paragraph (2) of the 1945 Constitution stipulates that “Every child has the right to live, grow and develop, and has the right to protection from violence and discrimination.” In addition to upholding the rights mentioned above, Indonesia is required to make the best interests of children the main consideration in the implementation of children's rights based on the [Convention] on Children's Rights and other related agreements that have been ratified by Indonesia.

239. The Human Rights Act dedicates a special section to regulate children's rights, which include “protection by parents, families, communities and the state,” rights to “life, maintain life, and improve their standard of living,” “knowing who one's parents are, being raised, and being cared for by one's

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495 Intergovernmental Panel on Climate Change, Climate Change: Impact, Adaptation and Vulnerability, p. 28 and 802.
496 Ibid., p. 14.
499 Indonesia, Human Rights Act, Article. 52 paragraph (1).
500 Human Rights Act, Article. 53 paragraph (1).
own parents,” getting legal protection from all forms of physical or mental violence, neglect, ill-treatment, and sexual harassment while in care,” 502 “obtaining education and teaching in the context of personal development in accordance with their interests, talents, and intelligence levels,” 503 “rest, socialize with children of the same age, play, recreation, and create according to their interests, talents, and intelligence levels for the sake of self-development.” These rights, and even more comprehensively, are reaffirmed in the Child Protection Act (Law No. 32 of 2002, amended by Law No. 35 of 2014), only under the principles of “the best interests of the child,” and “the right to life, survival, and development.”

240. Climate change prevents the Indonesian government from fully implementing its human rights obligations to children under national and international law. In addition to the fact that today’s children and their children will bear the brunt of the impacts of climate change as they age, children are among the most vulnerable to the consequences of climate change today, along with women, people with disabilities, indigenous peoples and people living in poverty. Some children fall into some of these categories. As set out in section 4.1 and in each of the rights sections, children and youth are particularly vulnerable to the impacts of climate change due to their unique metabolic, physiological and developmental needs.

241. The international community recognizes that extreme weather and climatic conditions undermine all achievements so far in the area of children’s rights. As recognized by UNICEF in relation to the implementation of the Sustainable Development Goals, climate change directly threatens children’s ability to survive, grow and develop and can reverse progress on development goals relating to children. Because children and youth are our future generations, and they will be most affected by the future challenges brought by climate change.

242. Child Plaintiffs MA, J, and Rasya have experienced climate impacts such as increasing heat over the past few years while experiencing anxiety about future climate change’s worsening effects. Plaintiff MA and his sibling experienced the extreme heat incident in Samarinda when they were at a vulnerable age, i.e., six months and two years. Plaintiffs J and Rasya also grew with the increase in hot days and the hot island effect in Jakarta. Plaintiff MA also had dengue fever, the spread of which is influenced by climatic factors and will increase with climate change. They have all grown up with a much higher frequency and intensity of hydrometeorological disasters than previous generations.

501 Ibid., Article 56 paragraph (1).
502 Ibid., Article 58 paragraph (1).
503 Ibid., Article 60 paragraph (1).
504 Ibid., Article 61.
507 Ibid., Article 2 number 2 and 3.
243. Most likely, they will all experience the future impacts of climate change directly as they age. Young children are more vulnerable to diseases such as malaria and dengue fever, more likely to be injured or killed during natural disasters, and more likely to suffer losses due to reduced access to medical care or other basic needs.\textsuperscript{510} Climate change-related disasters will disrupt child protection systems and exacerbate tensions and pre-existing conflicts, leaving children vulnerable to abuse, child labor, trafficking, and other forms of exploitation.\textsuperscript{511} Climate change will have serious impacts on children's enjoyment of the highest attainable standard of physical and mental health, access to education, proper food, proper housing, safe drinking water, and sanitation.\textsuperscript{512}

244. The fulfillment of the rights of Plaintiffs J and Rasya, and the protection of their best interests as children, depends on government action to address climate change. By contributing to and exacerbating the foreseeable risks of climate change impacts, and by failing to take adaptive steps to minimize these risks, the government violates the rights of young Plaintiffs as children and fails to take the best interests of children into consideration.

4.6. \textbf{Conclusion:} Due to the Government's actions and omissions regarding climate change, the human rights of the Plaintiffs have been violated.

245. As the global average temperature increases to near 1.5°C, the threat of extreme temperature increases, increasing frequency and intensity of hydrometeorological disasters, and unpredictable weather changes also increase, causing massive and irreversible damage to humans and the ecosystems on which we depend. The Plaintiffs have shown how climate change is interfering with the enjoyment of basic human rights guaranteed in the 1945 Constitution and Indonesian law. Rights that are disturbed by climate change include the right to live in physical and spiritual prosperity and in a good and healthy environment, the right to develop through the fulfillment of basic needs, the right to food and water, the right to education, and the right to work. In particular, there are four child plaintiffs who are particularly vulnerable to violations of all of these rights, both now and in the future.

246. The Plaintiffs request the National Commission of Human Rights to consider whether the Government fulfills its constitutional obligations to protect, promote, uphold and fulfill these human rights, given its actions and omissions in mitigating and ensuring adaptation to climate change. As the Government itself admits, climate change is a human rights issue. To fulfill its human rights obligations, the Government should take all necessary steps to mitigate


\textsuperscript{511}Ibid.

climate change and implement adaptation measures, mobilizing the maximum available resources with the highest possible ambition while ensuring that all actions are inclusive, participatory, and equitable. Failure to take steps to prevent the foreseeable harm to human rights caused by climate change violates the Government's human rights obligations. This interpretation is supported by sources of international human rights law, which are part of Indonesia's domestic human rights law.

247. The Plaintiffs believe that the Government has failed to fulfill its human rights obligations attached to it. As shown in section 4.4., the Government has failed to take the necessary mitigation measures and continues to act inconsistently with the goal of a safe climate of 1.5°C, for example, by continuing to approve new fossil fuel projects. Furthermore, the Government has failed to take adaptation measures that would prevent foreseeable harm to those most vulnerable to the impacts of climate change, including child Plaintiffs and Plaintiffs who live in remote areas, experience poverty, or have poor livelihoods that are vulnerable to climate. Furthermore, the Government has failed to ensure that its actions are consistent with the procedural rights of the Plaintiffs. By contributing to and exacerbating the climate crisis, and failing to minimize the risk of foreseeable climate impacts, the Government has acted in breach of its obligations to the Plaintiffs and all affected persons in Indonesia.

248. The Plaintiffs call on the Government to take a human rights-based approach to its climate actions. This means that measures taken to address climate change must not create or exacerbate other human rights violations. Furthermore, the needs of vulnerable groups must be prioritized, because climate change further complicate to fulfill their human rights. Addressing climate change also raises issues of justice and equity, particularly across generations. Those who are most vulnerable and those who face the most serious consequences of environmental degradation are those who contribute the least to causing climate change, including the poor and indigenous peoples, youth, and future generations of Indonesia. Children and young people are particularly vulnerable to the impacts of climate change. Climate change disrupts their education and economic development, causes forced displacement, disrupts livelihoods and access to food and air, and threatens their physical and mental health. For Plaintiffs facing poverty or marginalization, any existing problems with meeting basic needs are exacerbated by climate change.

249. The Plaintiffs seek recognition that climate change is a human rights crisis. Suppose the Government continues with a 'business-as-usual' approach, prioritizing the growth of carbon-intensive sectors and ignoring the adaptation needs of the affected communities. In that case, the human rights violations of the Plaintiffs will continue to worsen. Without a safe and stable climate, the fulfillment of human rights is impossible for the Plaintiffs – and for most, if not all, Indonesian society.

5. REQUEST
The Plaintiffs request that the Commission:
1. Stating that:
   a) Climate change is a human rights crisis; it has interfered with the enjoyment of human rights in Indonesia. If decisive action is not taken to address the root causes of climate change and reduce the costs of its impacts, these rights violations will only worsen. Each additional degree of heating will cause further losses.
   b) The impact of climate change has disrupted the Plaintiffs’ rights to a good and healthy environment, life, health, and development through the fulfillment of basic needs, food, water, education, and employment. Child Plaintiffs are particularly vulnerable to these offenses.
   c) The government has contributed to and continues to perpetuate the climate crisis by knowingly acting in disregard of the available scientific evidence on the necessary measures to mitigate climate change, using the maximum available resources at the highest possible ambition, adapting to climate change, paying special attention to for vulnerable groups. Despite being committed to pursuing the 1.5°C safe climate goal and having a constitutional duty to prevent climate hazards for its people, the Government continues to take actions that are inconsistent with its obligations, in particular:
      i. Persist in approving new coal-fired power plants and support existing coal-fired power plants that will continue to emit more than 107 million tonnes of GHG emissions annually for at least 20-30 years;
      ii. Approving large-scale deforestation and land clearing, including conversion of primary forest to plantations and mining, which will drastically reduce the absorption of GHG emissions; and
      iii. Failing to implement basic climate adaptation measures, such as nature-based coastal zone protection from storm surges, would protect vulnerable communities from the worst impacts of climate change.
   d) In relation to the above matters, the Government violates its obligation to respect, protect, uphold and fulfill the human rights of the Plaintiffs.

2. Recommend to the Government to immediately:
   a) Review and amend its laws and policies to reduce GHG emissions in line with a safe climate goal of 1.5°C, mobilize maximum available resources at the highest possible ambition, and minimize losses from climate impacts, based on the best available scientific evidence, to protect the rights of the Plaintiffs.
   b) Take the necessary steps to reduce Indonesia's national GHG emissions in accordance with the 1.5°C safe climate target and human rights approach, at least including:
      i. Enforce a moratorium on new coal plants and commit to urgent early retirement from existing coal plants;
ii. Restore the national moratorium on concessions for oil palm plantations, industrial forest plantations, and clearing of peatlands; as well as supervise and enforce the existing moratorium on primary forest clearing; and

iii. Promote sustainable, original, and polycultural agricultural practices that will reduce Indonesia's net emissions while ensuring crop resilience and helping farming communities adapt to climate impacts.

c) Implement climate adaptation measures that will help vulnerable communities build resilience to the impacts of climate change, including, at a minimum:

i. Mainstreaming low-carbon, climate-resilient development as the main strategy for adaptation by ensuring that development planning takes into account the impact of all policies, plans, and programs on climate vulnerability;

ii. Prioritizing – including balancing budget availability for nature-based adaptation actions that have multiple benefits for the fulfillment of human rights, such as maintaining and improving watersheds, water catchments, mangrove ecosystems, and coral reefs that serve as natural buffers;

iii. Enhance the integration of adaptation measures in NDCs into social, environmental, and budgetary policies at the domestic level;

iv. Ensure the implementation of social protection mechanisms – such as fishermen's insurance and agricultural insurance – including protection against climate-related vulnerabilities involving life, health, and livelihoods.

d) Ensure an inclusive, fair, open, and effective approach to public participation in decision-making on climate change as an issue affecting human rights, including by:

i. Provide accessible, affordable, and publicly understandable information on the causes and consequences of the global climate crisis, including incorporating climate change into educational curricula at all levels;

ii. Require meaningful public consultation before permitting carbon-intensive projects that will impact Indonesia's net emissions or Indonesia's ability to adapt to climate change; and

iii. Disclosing to the public the relevant documents and data, such as licensing information and environmental impact analysis, which includes an assessment of cumulative GHG impacts and other climate impacts, that informs the decision.

Thus we make this complaint. For your attention and cooperation, we offer our deepest gratitude.

Jakarta, 14 July
2022
Best regards,
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