

Melanie Subono and others

v.

President of the Republic of Indonesia,
Minister of Environment and Forestry of the Republic of Indonesia,
Minister of Internal Affairs of the Republic of Indonesia,
Minister of Health of the Republic of Indonesia,
Governor of SCR of Jakarta Province,
Governor of Banten Province, and
Governor of West Java Province

in the Citizen Lawsuit re: Jakarta Air Pollution
Case Number 374/PDT.G/LH/2019/PN.JKT.PST in Central Jakarta District Court

**AMICUS CURIAE BRIEF
OF THE UNITED NATIONS SPECIAL RAPPORTEUR
ON HUMAN RIGHTS AND THE ENVIRONMENT**

Dr. David R. Boyd

United Nations Special Rapporteur on the issue of human
rights obligations relating to the enjoyment of a safe,
clean, healthy and sustainable environment

Associate Professor of Law, Policy & Sustainability
Institute for Resources Environment & Sustainability
School of Public Policy and Global Affairs
2202 Main Mall
University of British Columbia
Vancouver, BC V6T 1Z4, Canada
Tel: +1 250 539 8181
Email: david.r.boyd@ires.ubc.ca

I. Identity and Interest of Amicus

1. I, David R. Boyd, have prepared this amicus curiae brief in my role as the United Nations Special Rapporteur on the human rights obligations related to the enjoyment of a safe, clean, healthy and sustainable environment.¹ I was appointed to this post by the Human Rights Council on 1 August 2018, under Resolution 37/8.² This voluntary position forms part of the UN's special procedures, experts selected from across the world to contribute to the fulfilment of human rights in areas related to their professional expertise.

2. I am also a professor at the University of British Columbia in Canada, jointly appointed in the Institute for Resources, Environment and Sustainability and the School of Public Policy and Global Affairs. I have worked as an environmental lawyer for 25+ years, served as an advisor to many governments on environmental policy, constitutions and human rights, and published nine books and more than 100 articles, reports, and book chapters. I have extensive expertise in comparative constitutional law, including books (e.g. *The Environmental Rights Revolution*, 2012), articles (e.g. *The Constitutional Right to a Healthy Environment*, 2012), and book chapters (e.g. *Catalyst for Change: Evaluating Forty Years of Experience in Implementing the Right to a Healthy Environment*, 2019).

3. In brief, my mandate as Special Rapporteur is to:

- Study human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment;
- Promote best practices relating to the use of human rights in environmental policy making;
- Identify challenges and obstacles to the full realisation of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment; and
- Provide reports annually to both the UN Human Rights Council and the UN General Assembly on the results of the foregoing work

4. In March 2019, I presented a detailed report to the Human Rights Council on the impacts of air pollution on human rights and the associated State obligations, with a particular focus on the right to breathe clean air as a component of the right to a healthy environment.³ The report describes the negative impact of air pollution on the enjoyment of many human rights, including the right to life, the right to health, the rights of the child and the right to a healthy environment. A copy of the report is included with this brief.

¹ Authorization for the positions and views expressed by the UN Special Rapporteur on human rights and the environment, in full accordance with his independence, was neither sought nor given by the United Nations, including the Human Rights Council or the Office of the High Commissioner for Human Rights, or any of the officials associated with those bodies. This third-party intervention is made by the United Nations Special Rapporteur on a voluntary basis without prejudice to, and should not be considered as a waiver, express or implied of the privileges and immunities of the United Nations, its officials and experts on missions, pursuant to the 1946 Convention on the Privileges and Immunities of the United Nations.

² The mandate on Human Rights and the Environment was established by the UN Human Rights Council in March 2012 under Resolution 19/10, for an initial three-year period. It was extended in March 2015 for a further three years under Resolution 28/11.

³ David R. Boyd, *The Right to Breathe Clean Air*, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, January 2019 (A/HRC/40/55).

5. I am submitting an amicus brief in this particular case because of its global importance. Jakarta is one of the world's largest capital cities and suffers from extremely poor air quality despite the fact that Indonesia recognizes the right to a good and healthy environment in its constitution and legislation. My intention is to assist the Court in developing Indonesia's jurisprudence by providing an expert perspective on relevant international human rights law and comparative constitutional law. I will respectfully outline my conclusion clean air is a vital component of the right to a good and healthy environment and that Indonesian governments are failing to fulfil their obligations to take the actions required to improve air quality.

II. Summary of Submissions

6. My submissions address five topics:
- Access to justice and the right to a good and healthy environment;
 - Relevant evidence, based on scientific research, on the adverse impacts of air pollution on human health and human rights in Indonesia;
 - The obligations of States under international human rights law from international treaties ratified by Indonesia and other instruments such as declarations, principles, and decisions of international treaty bodies, regional and international courts, as they inform the interpretation of the Constitution of the Republic of Indonesia (the Constitution), Law No. 39 of 1999 regarding Human Rights, and Law No. 32 of 2009 regarding The Protection and Management of The Environment;
 - Comparative constitutional jurisprudence of other States to assist in interpreting the right to a healthy environment in the context of air pollution; and
 - Seven key actions required to fulfil State obligations to fulfil the right to breathe clean air.

III. Access to Justice and the Right to a Good and Healthy Environment

7. The human right to live in a healthy environment is well established in Indonesian law. Article 28 H (1) of the Constitution of the Republic of Indonesia states that "Everyone has the right ... to enjoy a good and healthy environment".⁴ This fundamental human right is also recognized in Article 9(3) of Law No. 39 of 1999 regarding Human Rights (Undang – Undang Republik Indonesia No. 39 Tahun 1999 tentang Hak Asasi Manusia)⁵ and Article 65 of Law No. 32 of 2009 regarding The Protection and Management of The Environment (Undang – Undang Republik Indonesia No. 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup).⁶ Indonesia is also a signatory to the Association of Southeast Asian Nations' Human Rights Declaration, which states that every person has "the right to a safe, clean and sustainable environment" (Article 28f).

⁴ *BAB XA – HAK ASASI MANUSIA*

Setiap orang berhak hidup sejahtera lahir dan batin, bertempat tinggal, dan mendapatkan lingkungan hidup yang baik dan sehat serta berhak memperoleh pelayanan kesehatan.

⁵ *BAB III – HAK ASASI MANUSIA DAN KEBEBASAN DASAR MANUSIA*

Bagian Kesatu – Hak untuk Hidup

Setiap orang berhak atas lingkungan hidup yang baik dan sehat.

⁶ *BAB X – HAK, KEWAJIBAN, DAN LARANGAN*

Bagian Kesatu – Hak

Pasal 65

(1) Setiap orang berhak atas lingkungan hidup yang baik dan sehat sebagai bagian dari hak asasi manusia.

8. In light of these legal provisions, there should be no question as to the standing of the applicants to bring this proceeding. One of the procedural elements implicit in the right to a good and healthy environment is access to justice, so that rightsholders can protect their rights.

9. Most national constitutions that recognize the right to a healthy environment also contemplate its enforceability by concerned individuals and organizations.⁷ The justiciability of the right to a healthy environment empowers citizens and civil society, strengthens democratic decision-making and promotes accountability. Access to justice and an effective remedy is itself a fundamental human right, including in the context of environmental harms.⁸

10. A large number of court cases in which individuals and environmental organizations have successfully defended their right to a healthy environment in the context of air pollution are described in detail later in these brief, in paragraphs 44 to 64, under the heading of Comparative Constitutional Jurisprudence. Courts in these cases have rejected defendants' efforts to evade accountability via technical legal arguments such as obscurity and ripeness, recognizing that these arguments would establish unacceptable barriers to justice when constitutional rights are endangered or violated.

IV. The Adverse Impacts of Air Pollution on Human Health and Well-being

11. Exposure to air pollution causes a range of devastating health effects including respiratory illness and infections, heart disease, stroke, lung cancer, and negative birth outcomes (i.e. pre-term birth and low birth weight). A growing body of evidence links air pollution to other health problems including cataracts, ear infections, the onset of asthma in children, chronic deficits in lung function, diabetes, childhood obesity, stunting, developmental delays, reduced intelligence, and neurological disorders afflicting both children and adults.⁹

12. Fine particulate air pollution (PM_{2.5}) is the single largest environmental risk to human health. Fine particulate matter consists of tiny particles of soot, black carbon, sulphates, nitrates, and heavy metals that are breathed into the lungs and then pass into the bloodstream.¹⁰

13. The World Health Organization reports that the average annual level of fine particulate matter in Jakarta is 45 micrograms per cubic meter, more than four times higher than the recommended limit.¹¹

14. Leading research on the burden of disease shows that in 2017 there were 123,800 deaths in Indonesia attributable to air pollution, including 52,100 deaths caused by fine particulate matter, 68,100 deaths caused by household air pollution from solid fuels, and 4,680 deaths

⁷ David R. Boyd. *The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights and the Environment*. University of British Columbia Press, 2012.

⁸ Special Rapporteur on human rights and the environment (John Knox), Framework Principles on human rights and environment UN. Doc. A/HRC/37/59, Annex (2018).

⁹ World Health Organization (2017) *Inheriting a Sustainable World: Atlas on children's health and the environment*.

¹⁰ World Health Organization (2016) *Ambient (outdoor) air quality and health*.

¹¹ World Health Organization Platform on Air Quality and Health. 2018. Ambient Air Quality Database. See <https://www.who.int/airpollution/data/cities/en/>

caused by ambient ozone pollution.¹² Another estimate places the total even higher, at 211,916 premature deaths caused by air pollution annually in Indonesia.¹³

15. Air pollution also causes the loss of approximately 4,011,000 disability adjusted life years (DALYs) annually in Indonesia.¹⁴ DALYs is a metric that measures the years of healthy life lost and is widely used to identify the magnitude of illness caused by a particular risk factor. It is likely that a substantial portion of these DALYs occur in Jakarta because of the extremely poor air quality afflicting its large population over a span of decades.

16. In reports to the UN Human Rights Council, I have praised the progress made in Indonesia in reducing household air pollution.¹⁵ Household air pollution from the use of inefficient stoves burning biomass, kerosene and coal causes millions of premature deaths globally every year. Women and children face the highest risks. The proportion of households using solid fuels for cooking and heating has been declining in Indonesia. Indonesia implemented a successful “Zero Kero Programme”, launched in 2007, to convert households from kerosene to LPG.¹⁶ Kerosene is less efficient than LPG and produces more household air pollution. Over 57 million free LPG starter packages (including a one-burner stove, hose, regulator and a filled 3-kilogram cylinder) were distributed to households and micro-businesses. Total household kerosene use in Indonesia dropped 92 per cent between 2006 and 2015, while per capita LPG use quintupled. A post-implementation survey showed that 99.8 per cent of the households preferred using LPG to kerosene, citing its greater efficiency, speed of cooking and cleanliness.¹⁷ The Zero Kero Programme has contributed to a significant decline in premature deaths from household air pollution in Indonesia.¹⁸ This progress is strong evidence of the preventable nature of air pollution, which can be effectively addressed by government policies and programmes.

17. However, Indonesia has not enjoyed the same success in addressing outdoor air pollution, which is the subject of the present litigation. The levels of air pollution in Jakarta are among the highest in the world’s capital cities, making this case of global importance.¹⁹

¹² Health Effects Institute (2019) *State of Global Air 2019*. Data Source: Global Burden of Disease Study 2017. See <https://www.stateofglobalair.org/data/#/health/plot>

¹³ World Health Organization, United Nations Environment Programme, et al. *BreathLife 2020*. See https://breathelife2030.org/city_data/jakarta/

¹⁴ Health Effects Institute (2019) *State of Global Air 2019*. Data Source: Global Burden of Disease Study 2017. See <https://www.stateofglobalair.org/data/#/health/plot>

¹⁵ Special Rapporteur on human rights and environment (David R. Boyd), *The Right to Breathe Clean Air*, UN Doc. A/HRC/40/55 (2019) at paragraphs 86 and 89; *Right to a Healthy Environment: Good Practices*, UN Doc. A/HRC/43/53, (2020) at paragraph 45.

¹⁶ K. Thoday and others, “The mega conversion program from kerosene to LPG in Indonesia: lessons learned and recommendations for future clean cooking energy expansion”, *Energy for Sustainable Development*, vol. 46 (December 2018), pp. 71–81.

¹⁷ World LPG Association, *Kerosene to LPG conversion programme in Indonesia*, 2018.

¹⁸ Health Effects Institute, *State of Global Air 2019*.

¹⁹ World Health Organization, 2020, Urban Air Quality Database.

V. International Human Rights Law: The Adverse Impacts of Air Pollution on the Enjoyment of Human Rights

18. Poor air quality has implications for a wide range of human rights, including the rights to life, health, water, food, housing, the rights of children and of course the right to a good and healthy environment. There is a significant body of evidence showing that the burden of poor air quality falls disproportionately on the shoulders of marginalised and vulnerable people.

The right to life

19. The right to life is universally recognised in international human rights law. The UN Human Rights Committee, in 2018, stated: “Environmental degradation, climate change and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life.”²⁰

The right to health

20. Under the Universal Declaration of Human Rights, health forms part of the right to an adequate standard of living.²¹ The International Covenant on Economic, Social and Cultural Rights enshrines the right to health and provides that the steps to be taken by States to achieve the full realisation of the right “shall include those necessary for [...] the improvement of all aspects of environmental and industrial hygiene.”²²

21. The UN Committee on Economic, Social and Cultural Rights determined that the right to health “embraces a wide-range of socio-economic factors that promote conditions in which people can live a healthy life, and extends to the underlying determinants of health, such as [...] a healthy environment.”²³ The Committee has encouraged individual States to increase their efforts to reduce air pollution, in order to protect human rights.²⁴

The rights of the child

22. Children are uniquely vulnerable to the adverse impacts of poor air quality due to physiological, behavioural, and environmental factors.²⁵ Their developing brains and bodies are exquisitely sensitive to toxic substances, and they have longer life expectancy so childhood exposure can have lifelong health consequences. Air pollution is the leading risk factor for acute lower respiratory tract infections (e.g. pneumonia) in children under five.²⁶

23. The Convention on the Rights of the Child requires States to take appropriate measures to combat disease and malnutrition and to take into consideration the dangers and risks of

²⁰ General Comment No. 36 (2018) The Right to Life (CCPR/G/GC/36) at para 62.

²¹ Article 25 of the Universal Declaration of Human Rights 1948.

²² Article 12 of the International Covenant on Economic, Social and Cultural Rights 1966.

²³ General Comment No. 14 (2000) The Right to the Highest Attainable Standard of Health (E/C.12/2000/4) at para 4.

²⁴ CESCR (2015) Concluding Observations on the Fourth Periodic Report of Mongolia at para 26; CESCR (2013) Concluding Observations on the Second Periodic Report of Kuwait at para 27; and CESCR (2010) Concluding Observations on the Initial Report of Kazakhstan at para 35.

²⁵ UN Children’s Fund (2016) *Clear the air for children: The impact of air pollution on children*; World Health Organization (2017) *Don’t pollute my future! The impact of the environment on children’s health*.

²⁶ World Health Organization (2018) *Air Pollution and Child Health: Prescribing Clean Air*.

environmental pollution.²⁷ This led the World Health Organisation to conclude that “children have a basic human right to breathe clean air in their homes, schools, and communities.”²⁸

24. According to the UN Committee on the Rights of the Child, “States should take measures to address the dangers and risks that local environmental pollution poses to children’s health in all settings.”²⁹ The Committee has urged many States to scale up and expedite actions to protect children from polluted air.³⁰ The former Special Rapporteur emphasised the need to reduce the catastrophic health impacts of air pollution on children and youth.³¹ Similarly, the Special Rapporteur on Hazardous Substances and Wastes decried the “silent pandemic” of disease associated with childhood exposure to toxic substances, including air pollution.³²

The right to a healthy environment

25. Although the right to a healthy environment is not explicitly contained in any of the global human rights instruments negotiated in the 1950s and 1960s, it is protected under various regional human rights treaties negotiated since the 1980s. The first regional human rights treaty to explicitly incorporate the right to a healthy environment was the African Charter on Human and Peoples’ Rights.³³ Other regional instruments incorporating the right to a healthy environment include the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights,³⁴ the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters,³⁵ the Arab Charter on Human Rights,³⁶ the Regional Agreement on Access to Information, Public Participation and Access to Justice in Environmental Matters in Latin America and the Caribbean,³⁷ and the Association of South East Asian Nations Human Rights Declaration.³⁸ As noted earlier, Indonesia endorsed the latter declaration.

26. The right to a healthy environment includes a set of procedural and substantive elements, drawn from four decades of domestic and international jurisprudence. Procedural elements include access to information, participation in decision-making, and access to justice. Substantive elements include clean air, a safe climate, access to clean water and adequate

²⁷ Article 24(2)(c).

²⁸ World Health Organization (2018) *Air pollution and children’s health: a global health emergency*, background document prepared for the first World Health Organization Global Conference on Air Pollution and Health, Geneva.

²⁹ General Comment No. 15 (2013) The Right of the Child to the enjoyment of the Highest Attainable Standard of Health (CRC/C/GC/15) at para 49.

³⁰ CRC (2015) Concluding Observations on the combined Second to Fourth Periodic Report of Brazil at para 66; CRC (2016) Concluding Observations on the Fifth Periodic Report of Pakistan at para 58; and CRC (2016) Concluding Observations on the Fifth Periodic Report of the United Kingdom of Great Britain and Northern Ireland at para 69.

³¹ Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, January 2018 (A/HRC/37/58) at paras 16 – 18, 69 – 70.

³² Report of the Special Rapporteur on the Implications for Human Rights of the Environmentally Sound Management and Disposal of Hazardous Substances and Wastes, August 2016 (A/HRC/33/41) at paras 2 -3.

³³ Article 24 of the African Charter on Human and Peoples’ Rights 1981.

³⁴ Article 11 of the San Salvador Protocol, 1988.

³⁵ Article 1 of the Aarhus Convention 1998.

³⁶ Article 35 of the Arab Charter 1994.

³⁷ Articles 1 and 4 of the Escazu Agreement 2018 (not yet in force).

³⁸ Article 28. The Declaration is not a legally binding instrument.

sanitation, healthy and sustainably produced food, healthy ecosystems and biodiversity, and non-toxic environments in which to live, work, study and play.

27. Not all air pollution violates the right to a healthy environment. The right does not entitle rights-holders to absolutely pristine air quality. However, if air quality fails to meet legally enacted national, regional, or local air quality standards, it is a *prima facie* violation of the right to a healthy environment. This includes failure to meet short- and long-term air quality standards. When the failure to meet air quality standards persists over a longer period of time, the likelihood of rights being violated increases. National and local air quality standards should be based on the best available science, and consistent with international norms, such as the limits published by the World Health Organization.

28. Air pollution that exceeds acceptable air quality standards affects everyone, causing widespread violations of the right to live in a healthy environment. Yet the burden of disease caused by air pollution is inequitably distributed, with certain vulnerable populations bearing a disproportionate share of the impacts. Among the most severely harmed are children, people living in poverty, women, elderly persons, people with pre-existing health conditions such as respiratory conditions or heart disease, and people who fall into more than one of these categories.

29. Air pollution disproportionately harms people living in poverty. The overwhelming majority of illnesses and premature deaths caused by air pollution affect people in low- and middle-income countries. Major sources of ambient air pollution, including power plants, factories, incinerators, and busy roads are often located in poor communities. Air pollution plagues low quality housing, informal or temporary settlements, and refugee camps. Poverty also exacerbates the impacts of air pollution through lack of access to information, limited access to affordable health care, and a lack of political power to demand remedial action.

30. Women can be vulnerable to air pollution in particular situations. In countries where household air pollution is prevalent, women suffer the highest levels of exposure because of their primary role in cooking. Women and girls often spend many hours each week gathering fuel for cooking and heating, depriving them of educational and economic opportunities and raising the risks of injury and violence.³⁹

31. The elderly in low- and middle-income countries are severely impacted by air pollution. Of the total number of healthy years of life lost, or DALYs, due to air pollution, one quarter are lost by those over seventy years old.

VI. States' Obligations under International Human Rights Law

32. States have clear obligations under international human rights law to protect the enjoyment of human rights from environmental harm.⁴⁰ The foreseeable adverse effects of poor air quality on the enjoyment of human rights give rise to extensive duties of States to take immediate action to protect against those harmful effects. In 2017, the importance of taking

³⁹ World Health Organisation (2016) *Burning Opportunity: Clean Household Energy for Health, Sustainable Development, and Wellbeing of Women and Children*.

⁴⁰ Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, December 2013 (A/HRC/25/53).

immediate action to address air pollution was expressed by UN human rights experts as: “A threat like this can no longer be ignored. States have a duty to prevent and control exposure to toxic air pollution and to protect against its adverse effects on human rights.”⁴¹

33. In 2018, the previous Special Rapporteur on Human Rights and the Environment concluded six years of research and analysis by presenting Framework Principles on Human Rights and the Environment: The Main Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment (the “Framework Principles”).⁴² The sixteen Framework Principles “set out basic obligations of States under human rights law as they relate to the enjoyment of a safe, clean, healthy and sustainable environment.” They are derived from international treaties and binding decisions from human rights tribunals, as well as other human rights bodies. A copy of the Framework Principles is included with this brief.

34. The framework principles on human rights and the environment set out three categories of obligations on States under international human rights law:⁴³

- Procedural obligations that include the duties to provide information, facilitate participation and provide access to remedies;
- Substantive obligations that include the duty to regulate private actors; and
- Heightened obligations to those in vulnerable situations.

35. The following Framework Principles are particularly relevant to the pervasive air pollution and poor air quality in Jakarta:

- Framework Principle 1 “States should ensure a safe, clean, healthy and sustainable environment in order to respect, protect and fulfill human rights.”
- Framework Principle 7 “States should provide public access to environmental information by collecting and disseminating information and by providing affordable, effective and timely access to information to any person upon request.”
- Framework Principle 10 “States should provide for access to effective remedies for violations of human rights and domestic laws relating to the environment.”
- Framework Principle 11 “States should establish and maintain substantive environmental standards that are non-discriminatory, non-retrogressive and otherwise respect, protect and fulfil human rights.”

36. The right to breathe clean air places procedural obligations on States to promote education and public awareness; provide access to information; ensure freedom of expression, association, and assembly; facilitate public participation in the assessment of proposed projects, policies and environmental decisions; and ensure affordable, timely access to effective administrative and judicial remedies.

37. With respect to substantive obligations, States must not violate the right to breathe clean air through their own actions; must protect the right from being violated by third parties, especially businesses; and must establish, implement and enforce laws, policies and

⁴¹ UN Office of the High Commissioner of Human Rights (2017) *Toxic air pollution: UN rights experts urge tighter rules to combat “invisible threat”*.

⁴² Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, A/HRC/37/59 (24 January 2018), available at <http://undocs.org/A/HRC/37/59>.

⁴³ Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, January 2018 (A/HRC/37/59).

programmes to fulfil the right. States must also avoid discrimination and retrogressive measures, while prioritising the rights of vulnerable populations.

VII. Relevant Decisions from International Human Rights Courts and Tribunals

38. Various decisions by regional human rights courts and tribunals confirm that a State's failure to adequately protect persons from air pollution constitutes a violation of the right to a healthy environment. An analysis of these decisions provides guidance on the measures governments in Indonesia are required to take in order to fulfil their obligations under the right.

African Human Rights System

39. The African Commission on Human and Peoples' Rights produced a ground-breaking decision in 2001, concluding that air pollution caused by the oil industry (as well as water and soil pollution) violated the Indigenous Ogoni people's right to a healthy environment under the African Charter (Article 24). The Commission determined that Governments have clear obligations under Article 24 "to take reasonable and other measures to prevent pollution and ecological degradation, to promote conservation, and to secure an ecologically sustainable development and use of natural resources".⁴⁴

European Human Rights System

40. The European Court of Human Rights has repeatedly concluded that air pollution can violate human rights protected by the European Convention including the right to life (Article 2), the right to private and family life and the home (Article 8). Relevant cases have involved air pollution in Italy, Russia, Turkey and the Ukraine.⁴⁵ For example, a case from Turkey involved allegations that domestic court decisions had not been enforced despite Turkish courts concluding that the right to a healthy environment was violated by air pollution from coal-fired power plants. The European Court of Human Rights concluded that Turkey had violated the European Convention on Human Rights.⁴⁶

41. In addition, the European Social Committee of Social Rights, which adjudicates cases alleging violations of the European Social Charter setting out social and economic rights, ruled that by failing to address air pollution caused by coal mining, the Government of Greece violated the right to a healthy environment.⁴⁷

Inter-American Human Rights System

42. The Inter-American Human Rights system has confirmed that States have extensive obligations to address air pollution. An important case involves the town of La Oroya in Peru, where an American corporation operated a lead smelter that polluted the air and poisoned an entire town. Ninety-nine percent of children tested had blood lead levels exceeding the World Health Organization's recommended maximum, and many children were hospitalized. The Peruvian Constitutional Court ordered the implementation of a variety of measures to protect

⁴⁴ *African Commission on Human and Peoples' Rights, Social and Economic Rights Action Centre and Centre for Economic and Social Rights v. Nigeria*, Comm. No. 155/96, para. 52.

⁴⁵ European Court of Human Rights, *Cordella and others v. Italy*, no. 54413/13 and no. 54264/15. *Fadeyeva v. Russia*, no. 55724/00, 2005. *Okyay and others v. Turkey*, Application No. 36220/97, Final Judgment, 12 October 2005. *Grimkovskaya v. Ukraine*, No. 38182/03, 21 July 2011.

⁴⁶ European Court of Human Rights, *Okyay and others v. Turkey*, Application No. 36220/97, Final Judgment, 12 October 2005.

⁴⁷ *Marangopoulos Foundation for Human Rights v Greece*, Complaint No. 30/2005 (6 December 2006).

peoples' health and the environment, including declaring a state of emergency, taking immediate steps to protect vulnerable populations (children and pregnant women), and creating monitoring programs. The Peruvian government's failure to adequately follow the court's orders was the subject of a complaint to the Inter-American Commission on Human Rights. In accepting the complaint, the Commission concluded that Peru had unjustifiably delayed compliance with the decision of the Constitutional Court. The Commission also ordered Peru to take a number of interim measures, which included providing comprehensive medical exams and medical treatment.⁴⁸

43. In an Advisory Opinion issued in 2017, Inter-American Court on Human Rights clarified that the right to a healthy environment includes air quality.⁴⁹

VIII. Comparative Constitutional Jurisprudence on Air Pollution and the Right to a Healthy Environment

44. The right to a healthy environment enjoys constitutional recognition in 110 nations.⁵⁰ While the precise wording of constitutional environmental rights varies between countries, the purpose of these provisions is consistent, and the jurisprudence generally does not differentiate. Given the global prominence of air pollution problems it is not surprising that there is a substantial body of cases invoking the constitutional right to a healthy environment as citizens strive to secure cleaner air for themselves, their families and communities.

45. The Supreme Court of Indonesia has already ruled that governments have obligations to take timely and effective action to address air pollution.⁵¹ The 2018 decision dealt with the deadly threat of haze from forest fires which blanketed Central Kalimantan. The Supreme Court concluded that the severe air pollution violated the constitutional right to a good and healthy environment.

46. Below, I provide an analysis of comparative constitutional jurisprudence from Argentina, Bangladesh, Chile, Colombia, France, Germany, India, Mexico, Nepal and Pakistan. The analysis will assist this Court to identify possible ways in which to interpret the Government of Indonesia's obligations. As the Supreme Court of Mexico stated in a 2020 decision, courts are obligated "to ensure that the authorities comply with human rights, such as the right to a healthy environment, so that these fundamental rights have a real impact on our country and are not reduced to mere ideals or good intentions."⁵²

Argentina

47. The Constitution of Argentina states that "Every citizen has the right to a healthy and balanced environment, suitable for human development and for productive activities to satisfy present needs without compromising those of future generations" (Article 41). In a landmark

⁴⁸ *Community of La Oroya v. Peru*, Petition 1473-06, *Precautionary measures* (2007).

⁴⁹ Inter-American Court on Human Rights, Advisory Opinion 23/17 on human rights and the environment, 15 Nov. 2017, para. 60.

⁵⁰ D.R. Boyd (2018) "Catalyst for Change: Evaluating Forty Years of Experience in Implementing the Right to a Health Environment", in J.H. Knox and R. Pejan, eds. *The Right to a Healthy Environment*, Cambridge University Press.

⁵¹ Supreme Court of Indonesia, *President of Indonesia and others vs. Arie Rompas and others*, Decision no. 3555K/Pdt/2018.

⁵² Second Chamber of the Supreme Court of Mexico, Amparo 610/2019, 22 January 2020.

2008 decision, the Supreme Court of Argentina concluded that severe air and water pollution in the capital city of Buenos Aires violated residents' constitutional right to live in a healthy environment.⁵³ As a result, the Court required the federal government, provincial government, and local municipalities to take measures to reduce pollution, remedy environmental damage, and prevent future damage. The Court established an action plan requiring the governments to fulfill specific measures, including: (i) producing and disseminating public information about the state of the environment and threats to human health; (ii) controlling industrial air and water pollution; (iii) developing an emergency sanitation plan; and (iv) adopting a comprehensive measurement system to assess compliance with the plan's goals. In order to ensure enforcement, the Court delegated oversight to a federal court and required the governments to provide regular updates to the court on the status of implementation of its orders.

Bangladesh

48. The leading cases in Bangladesh involved petitions against various governmental authorities for not fulfilling their constitutional and statutory duties to mitigate air pollution. The Supreme Court stated: "Articles 31 and 32 of our constitution protect right to life as a fundamental right. It encompasses within its ambit, the protection and preservation of environment, ecological balance free from pollution of air and water, and sanitation without which life can hardly be enjoyed. Any act or omission contrary thereto will be violative of the said right to life."⁵⁴ Although there was legislation on the books to address industrial air pollution, it was not being implemented. The Supreme Court ordered the Government of Bangladesh to "adopt adequate and sufficient measures to control pollution".⁵⁵

49. A second case challenged the government's failure to implement laws and policies to reduce air pollution from motor vehicles. The Supreme Court ordered the implementation of "urgent preventative measures", including: elimination of highly polluting two-stroke diesel engines; the conversion of government vehicles to compressed natural gas; a requirement that all imported vehicles be equipped with catalytic converters; and strengthening of fuel quality standards.⁵⁶

Chile

50. Article 19(8) of the Constitution of Chile states that every person has "the right to live in an environment free of contamination." In 2019, the Supreme Court of Chile issued a powerful decision condemning the government's longstanding failure to address industrial air pollution in the Quintero-Puchuncaví region.⁵⁷ The Court concluded that the constitutional right to a healthy environment had been violated and ordered the government to implement a suite of remedial actions to protect public health and the environment. It stated that "economic development, such as that represented by the creation of Ventanas Industrial Complex, even when it legitimately aims to improve the quality of life of people, including those who live in Quintero, Ventanas and Puchuncaví, cannot be implemented by ignoring or abandoning the

⁵³ *Beatriz Silvia Mendoza, et al. v. National State of Argentina* (Supreme Court of Argentina, July 8, 2008).

⁵⁴ *Farooque v. Bangladesh* (1997), 49 Dhaka Law Reports 1 (Chowdhury J.).

⁵⁵ *Farooque v. Bangladesh*, Supreme Court of Bangladesh, WP No 891 of 1994, 15 July 2001.

⁵⁶ *Farooque v. Bangladesh*, (2002) 22 BLD (HCD) 345 (Supreme Court of Bangladesh).

⁵⁷ *Francisco Chahuan Chahuan versus Empresa Nacional de Petróleos, ENAP S.A.*, Case No. 5888-2019, (May 28, 2019).

conservation and protection of the environment, while it also cannot compromise the expectations of future generations.”⁵⁸

Colombia

51. In a successful case brought by 25 children and youth to protect their constitutional right to a healthy environment from climate change and deforestation, the Supreme Court of Colombia observed that “the impossibility of exercising the fundamental rights to water, to breathe clean air, and to enjoy a healthy environment makes the living subjects of rights sick on a daily basis, increases the lack of fresh water and decreases the expectations of dignified life.”⁵⁹ In a 2019 decision, Colombia’s Constitutional Court found that air pollution from a large open-pit coal mine adversely affected the health and well-being of local residents and violated the constitutional right to a healthy environment.⁶⁰ The Court ordered the government and the corporation to implement a suite of remedial measures to monitor and improve air quality.

France

52. France’s Constitution includes a Charter for the Environment that states “Everyone has the right to live in a balanced environment which shows due respect for health” (Article 1). France’s Environmental Code includes the following provision:

Article L220-1. The State and its public institutions, local authorities and their public institutions as well as private individuals, all contribute, each within its field of competence and within the limits of its responsibility, to a policy the objective of which is the implementation of the recognised right of all to breathe air which is not harmful to the health.

53. In the past two years, a number of French courts have issued judgments concluding that the Government of France had taken insufficient and inadequate steps to improve air quality, in contravention of its obligations under the French Environmental Code and the European Union Directive of 21 May 2008 “Cleaner Air for Europe”. These court decisions have been issued by the Administrative Court of Paris, the Administrative Court of Lyon, the Administrative Court of Montreuil, and the Administrative Court of Lille.⁶¹ In each of these regions, air quality monitoring had revealed that national standards (referred to as limit values in European air quality law) for fine particulate matter and other pollutants were consistently exceeded.

54. In 2017, the French Council of State ordered the Government of France to prepare and implement air quality plans to bring down the concentrations of nitrogen dioxide and fine

⁵⁸ *Francisco Chahuan Chahuan versus Empresa Nacional de Petróleos*, ENAP S.A, Case No. 5888-2019, (May 28, 2019), para 34.

⁵⁹ *Demanda Generaciones Futuras v. Minambiente*, Supreme Court of Justice of Colombia, STC4360-2018, Decision of 5 April 2018.

⁶⁰ Mariluz Uriana Ipuana and Yasmin Uriana, Sentencia T-614/2019, 16 December 2019, Constitutional Court of Colombia.

⁶¹ See, for Paris, <http://paris.tribunal-administratif.fr/Actualites-du-Tribunal/Communiqués-de-presse/POLLUTION-DE-L-AIR>. See, for Montreuil, <http://montreuil.tribunal-administratif.fr/Actualites/Actualites-Communiqués/Communiqué-de-presse-du-25-juin-2019>. See, for Lyon, <http://lyon.tribunal-administratif.fr/A-savoir/Communiqués/Pollution-de-l-air>. See, for Lille, Ruling No. 1709919.

particulate matter below the limit values set by the European Directive of 21 May 2008 and France's Environmental Code in 13 regions across the country, as quickly as possible.⁶²

55. In 2020, following the failure of the Government of France to comply with its order, the Council of State ordered the Government to take steps to reduce air pollution, subject to a fine of ten million euros per half year of delay, the largest fine ever imposed in France to force the State to execute a decision taken by an administrative judge.⁶³

Germany

56. Courts in Germany have ruled that the government is obligated to take sufficient measures to ensure compliance with air quality standards mandated by the European Union and incorporated into German law.⁶⁴ Lawsuits against more than a dozen cities in Germany have also highlighted the requirement for air quality plans that contain strong enough measures to achieve air quality standards. For example, the Administrative Court of Stuttgart determined that the city's draft air quality plan was inadequate, and ruled that bans on diesel vehicles are required to successfully reduce air pollution.⁶⁵ In 2018, Germany's Federal Administrative Court confirmed that bans on certain heavily polluting vehicles are lawful and necessary.⁶⁶

India

57. The Supreme Court of India has ruled that the constitutional right to life includes the right to a healthy environment. In longstanding cases, the Court has issued multiple orders requiring Delhi to take action to address air pollution from motor vehicles and the Government of India to tackle industrial air pollution.⁶⁷ The main lawsuit seeking the cleanup of motor vehicle pollution in Delhi, which also addressed industrial pollution, was originally filed in 1985. The Supreme Court's first order in the case required the municipal government to provide information on its pollution initiatives and enforcement actions taken against the owners of dirty vehicles. Then the court established an expert committee to identify technological options for improving air quality.

58. In the 1990s, the court ordered the phase-out of leaded gasoline in Delhi and other major cities; mandatory installation of catalytic converters on new vehicles; and conversion of all public transportation (buses, taxis, and autorickshaws or three-wheeled taxis) to compressed natural gas (CNG). In 1998, the court ordered Delhi to begin removing all public and private vehicles older than ten years and begin regular emissions testing of vehicles. Court orders in the 1990s also led to the closure or relocation of thousands of polluting facilities.

59. Additional court decisions were issued in 2002 and 2003 (the latter ordering the national government and nine cities to develop air quality action plans). The transition to CNG was supposed to be completed by 2001. As a result of delays, the Supreme Court issued an order in 2002 mandating the immediate introduction of fifteen hundred CNG buses, the monthly replacement of eight hundred diesel buses, and fines for further delays. By the end of 2002, all

⁶² Decision No. 394254, dated 12 July 2017.

⁶³ Decision No. 428409, 10 July 2020.

⁶⁴ Decision of the German Federal Administrative Court dated February 27, 2018 (7 C 30/17).

⁶⁵ <https://www.right-to-clean-air.eu/en/lawsuits-and-decisions/germany/lawsuits-and-decisions/>

⁶⁶ Deutsche Umwelthilfe e.v. (DUH), 2020. *Legal Actions on Clean Air: Summary 2016-2019*. <https://www.right-to-clean-air.eu/en/>

⁶⁷ *M.C. Mehta v. Union of India* 2002 (4) SCC 356.; *M.C. Mehta v. Union of India* (1997) 11 SCC 327. *MC Mehta v Union of India* (Writ Petitions No 817 of 2015, 116 of 2013 and 728 of 2015, 16 December 2015). *MC Mehta v Union of India* (2016) 4 SCC 269.

public transport in Delhi was converted to CNG. In 2015 and 2016, additional orders from the Supreme Court addressed air pollution from diesel vehicles and taxis. According to the highly regarded Energy and Resources Institute, “The role of the judiciary in prodding the government to act against rising air pollution has been significant.”⁶⁸

60. India’s National Green Tribunal also has issued many orders requiring the government of India to tackle that country’s pressing air pollution problems. Among other actions, the Tribunal ordered the national and state governments to establish a committee to develop an action plan to reduce air pollution and respond to emergency situations when air pollution surpassed critical thresholds.⁶⁹

Mexico

61. The Constitution of Mexico provides that every person “has the right to a healthy environment for his/her own development and well-being (Article 4). In 2018, the National Human Rights Commission of Mexico published the results of an extensive investigation into air quality in Mexico and the actions of the federal, state and local governments to address air pollution.

62. The Commission determined that there were systemic and ongoing violations of the constitutional right to a healthy environment: including:

- an inadequate air quality monitoring system;
- failure to update air quality standards;
- lack of timely information provided to the public about air quality; and
- failure to take effective actions to reduce air pollution and ensure clean air.⁷⁰

Nepal

63. The Constitution of Nepal states that “each person shall have the right to live in a healthy and clean environment” (Article 30). In cases involving air pollution and the right to a healthy environment, the Supreme Court of Nepal stated that “a clean and healthy environment is an essential element for our survival.”⁷¹ The court also used the constitutional right to a healthy environment as a basis for rejecting a challenge to a government ban on certain highly polluting vehicles, stating that the right to clean air outweighed the freedom to carry out business.⁷² More recently, the Supreme Court ordered the Government of Nepal to take additional actions to address air pollution from motor vehicles and industry.⁷³

Pakistan

64. In Pakistan, the Lahore High Court relied on the constitutional right to life to require that the government implement a range of actions to reduce air pollution, including the

⁶⁸ The Energy and Resources Institute, 2006, *Looking Back to Change Track*.

⁶⁹ *Vardhaman Kaushik v Union of India*, (Order of the National Green Tribunal regarding deteriorating air quality in Delhi, Original Application Nos 21/2014, 95/2014, 303/2015, 181 /2013 and 609 /2016, 10/11/2016).

⁷⁰ Comisión Nacional de los Derechos Humanos. General recommendation 32/2018, paras 445-459. See https://www.cndh.org.mx/sites/default/files/doc/Recomendaciones/Generales/RecGral_032.pdf

⁷¹ *Suray Prasad Sharma Dhungel v. Godavari Marble Industries and Others* (1995).

⁷² *K.B. Shrestha and Others v. HMG, Department of Transport* (1999).

⁷³ *Prakash Mani Sharma v HMG Cabinet Secretariat*, Supreme Court of Nepal, WP No 3440/2053, 11 March 2003. *Prakash Mani Sharma v HMG Cabinet Secretariat*, Supreme Court of Nepal, WN No 3027/2059, 10 December 2007.

enforcement of a phase-out of polluting buses and two-stroke rickshaws, the establishment of dedicated bus lanes, and the implementation of air quality and fuel standards.⁷⁴

IX. Seven Key Steps to Protect Human Rights from Air Pollution

65. Drawing on international human rights law and domestic constitutional law regarding implementation of the right to a healthy environment, my report to the Human Rights Council in 2019 described seven key steps that States must take in fulfilling the right to a healthy environment in the context of air pollution, namely:

- Monitor air quality and impact on health.
- Assess sources of air pollution.
- Make information publicly available, including public health advisories.
- Establish air quality legislation, regulations, standards and policies.
- Develop air quality action plans at the local, national and, if necessary, regional level.
- Implement the air quality action plan and enforce the standards.
- Evaluate progress and, if necessary, strengthen the plan to ensure the standards are met.⁷⁵

These seven steps are analysed below as they apply in the particular situation of Jakarta.

66. Importantly, at each stage, States must ensure that the public is fully informed and has an opportunity to participate in decision-making processes. Every effort should be made to engage with women, children, and others in vulnerable situations whose voices are too often silenced in environmental policy processes. Special attention must be paid to environmental defenders working to protect the right to clean air. A failure at any one of these seven stages can constitute a violation of the right to live in a healthy environment.

A. Monitoring air quality and health effects

67. States must establish networks and programmes to monitor air quality and health effects, particularly in urban areas and other regions known to suffer from poor air quality, such as Jakarta. Direct monitoring data can be complemented by air quality observations from satellites and outputs from computer models. Monitoring is a prerequisite to fulfilling the Government of Indonesia's obligation to provide information to the public and is also essential to informed policy-making.

68. Other States with severe air quality problems, such as China and India, have made great strides in recent years in establishing hundreds (India) and thousands (China) of new air quality monitoring stations.

69. The evidence in this case indicates that while there are some air quality monitoring stations in Jakarta, their geographic coverage is limited. Until recently, none of the monitors used by any level of government measured concentrations of fine particulate matter (PM 2.5), which is widely regarded as the most dangerous air pollutant for human health.

⁷⁴ *Mansoor Ali Shah v Government of Punjab* (2007) CLD 533 Lahore High Court

⁷⁵ David R. Boyd, *The Right to Breathe Clean Air*, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, January 2019 (A/HRC/40/55).

B. Assessing the sources of air pollution

70. Reducing the disease burden attributable to air pollution and fulfilling the right to a good and healthy environment require understanding the types of pollution and major contributing sources. This is critical for identifying the highest priority and most cost-effective actions for controlling emissions to protect public health, human rights and the environment. Source assessments have been completed in many high-income nations, as well as in China and India.⁷⁶ Without adequate information, designing effective policies, programmes and other interventions is impossible.

71. Jakarta has made substantial progress towards an air pollution emissions inventory through the use of both source-based and receptor-based approaches. These studies indicate that the three main sources of air pollution in Jakarta are transportation (mostly private vehicles), Industrial factories, and coal-fired power plants.⁷⁷

C. Public reporting on air quality

72. In addition to systematically collecting air quality information, States must share this information in a timely, accessible way, educate the public about the health risks posed by poor air quality and have systems in place to provide warnings when pollution poses an acute health threat, particularly for vulnerable populations.

73. There is an Air Quality Index in Jakarta (Indeks Standar Pencemar Udara) but it provides information based on the previous day's level of air quality rather than the current day.⁷⁸ Also problematic is the fact that the Air Quality Index in Jakarta describes air quality as "Moderate" when fine particulate matter (PM 2.5) is up to five times higher than the World Health Organization's recommended limit.⁷⁹ This level of PM 2.5 would be considered "Poor" in the European Union and "Unhealthy for Sensitive Group" in the United States. Therefore, it does not appear that the Government of Indonesia is fulfilling its obligation to provide the public with accurate and timely information about the health risks posed by poor air quality.

D. Establishing air quality legislation, regulations and standards

74. States have an obligation to "establish and maintain substantive environmental standards that are non-discriminatory, non-retrogressive and otherwise respect, protect and fulfil human rights".⁸⁰ The World Health Organization has published guidelines for ambient air quality as well as indoor air quality, which States should incorporate as legally binding national standards.⁸¹

75. Air quality standards should protect the most vulnerable members of society, in part by applying the precautionary principle and using adequate margins of safety. For example,

⁷⁶ Health Effects Institute, *State of Global Air 2018: A Special Report on Global Exposure to Air Pollution and its Disease Burden* (Boston, 2018).

⁷⁷ Environment Agency of DKI Jakarta and Vital Strategies. 2020. Toward Clean Air Jakarta. See <http://jakarta.cleanair.id>

⁷⁸ Environment Agency of DKI Jakarta and Vital Strategies. 2020. Toward Clean Air Jakarta. See <http://jakarta.cleanair.id>

⁷⁹ Environment Agency of DKI Jakarta and Vital Strategies. 2020. Toward Clean Air Jakarta, p. 21.

⁸⁰ A/HRC/37/59, annex, framework principle 11.

⁸¹ WHO, *WHO Guidelines for Indoor Air Quality: Household Fuel Combustion* (Geneva, 2014); and WHO Regional Office for Europe, *Air Quality Guidelines: Global Update 2005: Particulate Matter, Ozone, Nitrogen Dioxide and Sulphur Dioxide* (Copenhagen, 2006).

national standards must take into consideration the best interests of children.⁸² The weakness of national air quality standards in Indonesia indicates a failure to fulfil this fundamental human rights obligation, with potentially devastating impacts upon the health of children.

76. Indonesia has National Air Quality Standards, and Jakarta has adopted its own regional Air Quality Standards. In both cases, the standards are weaker than the World Health Organization recommendation for the maximum average annual concentration of the key pollutant of fine particulate matter (PM 2.5). In any event, levels of air pollution in Jakarta exceed, by a substantial margin, the national and regional standards as well as the WHO recommended limit. It should also be noted that the current level of sulphur permitted in gasoline and diesel fuel in Indonesia, at 500 parts per million (ppm), is very high. For comparative purposes, since 2017, the level of sulphur permitted in gasoline and diesel fuel in China, is 10 ppm. In India, the level of sulphur permitted in gasoline and diesel fuel was reduced from 50 ppm to 10 ppm in 2020.⁸³ In other words, the maximum allowable level of sulphur in gasoline and diesel fuel in Indonesia is fifty times higher than in China or India.

E. Air quality action plans

77. States must develop air quality action plans that identify the most important and effective measures that can be implemented to improve air quality, particularly for vulnerable populations. Similar plans may be required at the local level.

78. States have discretion to determine which air quality policies and programmes are best suited to their particular circumstances. However, they have obligations, to the maximum of their available resources (in some cases supplemented with international assistance), to implement concrete and effective measures to prevent increases in air pollution, improve air quality and fulfil the right to breathe clean air. Some human rights obligations, such as non-discrimination and non-regression, are of immediate effect. The principle of non-regression means States must not weaken air quality regulations, standards or policies.

79. It is unclear whether there are comprehensive national and regional air quality action plans in Indonesia and Jakarta respectively, and if so, whether they are being adequately implemented.

F. Implementing and enforcing air quality rules

80. States must ensure the effective enforcement of their environmental standards against public and private actors.⁸⁴ Environmental laws, regulations and standards are ineffective if they are not implemented and enforced. Sufficient human and financial resources must be allocated to government agencies responsible for enforcing them.

81. States are obligated to ensure that people have access to remedies, through judicial or similar processes, when their right to breathe clean air is being threatened or violated or when other legal obligations related to air quality are not being fulfilled.

82. There appears to be a lack of enforcement of air quality regulations in Jakarta, contributing to levels of air pollution that regularly exceed both the national and regional standards.

⁸² Convention on the Rights of the Child, art. 3 (1).

⁸³ See <https://www.transportpolicy.net/standard/india-fuels-diesel-and-gasoline/>

⁸⁴ A/HRC/37/59, annex, framework principle 12.

G. Evaluating and revising air quality standards and plans

83. An essential element of efforts to improve air quality is to evaluate progress (or the lack thereof) on a regular basis. Air quality standards and plans should be strengthened over time to increase protection for the environment, human health, and human rights. New scientific evidence and public participation must also be incorporated into the review and revision processes. At a minimum, national and regional legislation should incorporate the WHO recommended limits, which is not the case in Indonesia or Jakarta.

X. Conclusion

84. Air pollution is the deadliest environmental problem in the world today, causing millions of deaths annually and preventing billions of people from enjoying their human right to breathe clean air, which is a vital element of the constitutional right to a good and healthy environment. Air pollution is a major problem in Indonesia causing hundreds of thousands of premature deaths annually. The problems are particularly severe in Jakarta, with levels of fine particulate (PM 2.5) well above national and regional standards as well as World Health Organization recommended limits.

85. Yet air pollution is a problem that is amenable to solutions that are well known. Solving air pollution involves the effective implementation of the seven key steps, derived from international human rights law and domestic constitutional jurisprudence, that are presented in this brief.

86. Protecting human rights from the harmful effects of air pollution is a constitutional and legislative obligation for governments in Indonesia, not an option. I respectfully submit that the failure of Indonesian governments to improve substandard outdoor air quality in Jakarta, especially when they have failed to act with the requisite degree of urgency and diligence in the face of prolonged and persistent exceedances of air quality standards, is a violation of the constitutional right to a good and healthy environment.

Respectfully submitted this 9th day of October, 2020



Dr. David R. Boyd

United Nations Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment

Associate Professor of Law, Policy & Sustainability
Institute for Resources Environment & Sustainability
School of Public Policy and Global Affairs

2202 Main Mall

University of British Columbia

Vancouver, BC V6T 1Z4, Canada

Tel: +1 250 539 8181

Email: david.r.boyd@ires.ubc.ca