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**Promotion and protection of all human rights, civil,
political, economic, social and cultural rights,
including the right to development**

Visit to Maldives

Report of the Special Rapporteur on the human right to a clean, healthy and sustainable environment, David R. Boyd*

Summary

The Special Rapporteur on the human right to a clean, healthy and sustainable environment, David R. Boyd, visited Maldives from 16 to 25 April 2024. The purpose of the visit was to examine the implementation of the right to a clean, healthy and sustainable environment in Maldives, to identify good practices and to investigate the environmental challenges that the country faces, in particular the climate crisis. Maldives, which is one of a handful of atoll nations in the world facing an existential threat from rising sea levels, paradoxically spends hundreds of millions of dollars annually subsidizing the use of fossil fuels. The State also faces substantial human rights and environmental challenges, including land reclamation, which harms biodiversity, lack of universal access to safe and sufficient water and adequate sanitation, pollution and inadequate waste management. In his recommendations, the Special Rapporteur encourages Maldives to maintain its international leadership on the right to a healthy environment, accelerate the transition from fossil fuels to renewable energy, prioritize the fulfilment of the rights to water and sanitation for all, improve protection for biodiversity, transform waste management and address challenges regarding the procedural elements of the right to a healthy environment.

* The summary of the report is being circulated in all official languages. The report itself, which is annexed to the summary, is being circulated in the language of submission only.



Annex

Report of the Special Rapporteur on the human right to a clean, healthy and sustainable environment, David R. Boyd, on his visit to Maldives

I. Introduction

1. Scattered like sparkling jewels across a vast swath of the Indian Ocean, the islands of Maldives are a tropical paradise. Yet Maldives faces a potentially dystopian future because of the climate emergency caused by wealthy nations and wealthy individuals. With the highest point of land only 2.5 metres above sea level, scientific projections indicate that Maldives could disappear completely beneath the ocean at some point in the future owing to rising sea levels.

2. Long before that ultimate catastrophe, Maldives could become virtually uninhabitable as a result of the combined impacts of sea level rise, floods, coastal erosion, increased frequency of extreme weather events (including cyclones, storm surges and strong winds), severe heat, intense and unpredictable rainfall patterns, extended dry seasons, saltwater contamination of freshwater and agricultural lands, increased sea surface temperatures, vector borne diseases, ocean acidification and coral bleaching. These devastating present and future effects of the climate emergency on Maldives and other small island States are described in detail in the sixth assessment report of the Intergovernmental Panel on Climate Change.¹

3. Atoll nations, including Maldives, are among the most vulnerable places on Earth because of their low elevation, small land area, 360 degree exposure to waves, limited fresh water supplies, fragile ecosystems, high population densities and limited technical, financial and human resources. Sea level rise is accelerating, with dire consequences.² As a rule of thumb, every 10 centimetres of sea level rise triples the frequency of coastal flooding and leads to a 10-metre retreat of unprotected coastlines.³ By the end of the twenty-first century, Maldives could be experiencing the kind of annual coastal floods that previously took place once every 100 years. Infrastructure within 100 metres of the coast would be extremely vulnerable to inundation and damage.

4. The plight of Maldives illustrates the unique nature of the human rights conundrum posed by the climate emergency. The people of Maldives, who have made a negligible contribution to the climate emergency (0.0003 per cent of global emissions), are being subjected to a disproportionate share of the impacts. The dire warning of the Intergovernmental Panel on Climate Change resonates with particular power in Maldives: “There is a rapidly closing window of opportunity to secure a livable and sustainable future for all ... The choices and actions implemented in this decade will have impacts now and for thousands of years”.⁴

5. In some respects, Maldives epitomizes a global economy based on the exploitation of people and nature. A burgeoning number of islands are being privatized and developed as high-end luxury resorts for wealthy foreigners, at a cost of thousands of dollars per night, while nearly a third of the population of Maldives is made up of migrant workers, many of whom live and work in poor conditions, earning minimal wages. As a result, foreign investors

¹ See Michelle Mycoo and others, “Small islands”, in *Climate Change 2022: Impacts, Adaptation and Vulnerability*, Intergovernmental Panel on Climate Change (Cambridge, United Kingdom of Great Britain and Northern Ireland and New York, Cambridge University Press, 2022), pp. 2043–2121.

² Jeff Masters, “How fast are the seas rising?”, Yale Climate Connections, 12 July 2023.

³ CoastAdapt, “Rules of thumb for managing coastal processes”, 5 May 2017, available at <https://nccarf.edu.au/wp-content/uploads/2019/05/Rules-of-thumb-for-managing-coastal-processes.pdf>; and James Renwick, “Climate explained: why coastal floods are becoming more frequent as seas rise”, The Conversation, 19 November 2019.

⁴ See <https://www.ipcc.ch/report/ar6/syr/resources/spm-headline-statements/>.

reap large profits while local communities suffer the loss of ecosystems that sustain them. Many airports are being built, even on islands with convenient speedboat access to other airports, despite the fact that air travel is the most carbon-intensive mode of transportation.

6. During his visit to Maldives, the Special Rapporteur on the human right to a clean, healthy and sustainable environment, David R. Boyd, spent time in the capital, Malé, and travelled to a number of other islands and atolls, including Hulhumalé, Thilafushi and Villingili (Kaafu Atoll), Kulhudhuffushi (Haa Dhaalu Atoll) and Hithadhoo, Maradhoo, and Feydhoo (Addu Atoll). He met with the Minister for Foreign Affairs, the Minister of Climate Change, Environment and Energy, the Minister of Economic Development and Trade, the Special Envoy for Climate Change from the Office of the President, officials from the Ministry of Fisheries and Ocean Resources, the Ministry of Health, the Ministry of Land, Housing and Urban Development, the Office of the Attorney General, the Waste Management Corporation, the National Disaster Management Authority and the National Human Rights Commission, justices of the Supreme Court, representatives of the Maldivian Red Crescent, marine biologists, youth and members of civil society.

II. Legal and policy framework

A. International legal context

7. Maldives has ratified eight out of the nine core international human rights treaties, along with five optional protocols. The sole exception is the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families. Commendably, Maldives is also a State party to all of the major international climate and environmental agreements, including the United Nations Framework Convention on Climate Change, the Paris Agreement, the Convention on Biological Diversity, the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Stockholm Convention on Persistent Organic Pollutants, the Convention on Wetlands of International Importance especially as Waterfowl Habitat and the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

8. Maldives deserves substantial credit for its leadership role in the adoption of United Nations resolutions recognizing the human right to a clean, healthy and sustainable environment, both at the Human Rights Council in 2021⁵ and at the General Assembly in 2022.⁶ This fundamental human right includes clean air, safe and sufficient water, healthy and sustainably produced food, non-toxic environments, healthy biodiversity and ecosystems and a safe climate. It also includes rights of access to environmental information, public participation in environmental decision-making and access to justice with adequate remedies. The Special Rapporteur encourages Maldives to advocate a human rights-based approach in the ongoing negotiations towards the adoption of a global plastics treaty; a pandemic prevention, preparedness and response treaty; and a business and human rights treaty.

9. Maldives should continue to implement the many useful recommendations related to climate and environmental action made in the universal periodic review of Maldives at the Human Rights Council (concluded in 2020), such as the inclusion of the needs of persons with disabilities in climate adaptation efforts.⁷

⁵ Resolution 48/13.

⁶ General Assembly resolution 76/300.

⁷ See <https://www.ohchr.org/en/hr-bodies/upr/mv-index>.

B. National legal context

10. The right of every citizen of Maldives to a “healthy and ecologically balanced environment” is recognized in article 23 of the Constitution.⁸ However, from a human rights perspective, that right should be enjoyed by all residents and not limited to citizens.⁹ It appears to be the only constitution in the world to treat this fundamental human right in such a restrictive manner. This constitutional flaw takes on additional importance because of the very significant number of migrant workers living in Maldives (estimated at 150,000), some of whom are living or working in unsafe and unhealthy environments.

11. The main environmental law in Maldives is the outdated Environment Protection and Preservation Act 4/1993. Environmental laws and policies in Maldives are evolving, with a number of recent laws, for example, the Climate Emergency Act 9/2021, the Waste Management Act 24/2022, and bills that have not yet been enacted, including a modernized environmental protection and conservation act. Furthermore, while vital reforms to fossil fuel subsidies have been developed they have not been fully implemented. As noted in the 2022 report of the Government of Maldives and the United Nations, the country needs to “Strengthen the institutional capacity for environmental management, including monitoring, assessment and enforcement capacity”.¹⁰ Useful guidance regarding rights-based environmental legislation in the Asia-Pacific region is provided by the United Nations Environment Programme (UNEP).¹¹

12. Other important environmental laws and regulations include: the Fisheries Act 14/2019, the Water and Sewerage Act 8/2020, the Protection of Ozone Layer Act 41/2015, the Environmental Impact Assessment Regulations 2012/R-27, the Protected Species Regulation 2021/R-25, the Agricultural Pesticide Control Act 21/2019, the Agricultural Pesticide Control Regulation 2021/R-12, the Import Prohibition Act 4/75, the Hazardous Chemical Regulation 2019/R-1057 and the Regulation on Protecting and Conservation of Environment in the Tourism Industry of 2006, adopted pursuant to the Maldives Tourism Act 2/99.

C. Political structure and economy

13. Maldives consists of 26 natural atolls comprising approximately 1,190 islands, which are grouped into 20 administrative units. Although often described as a small island State, Maldives could also be considered a big ocean State, as 99 per cent of its total territory is marine, while only 1 per cent, approximately 300 square kilometres, is land. The population of 515,132 (2022 census) is spread over 188 inhabited islands, with additional islands dedicated to resorts for tourists. More than 130,000 residents are foreign workers, a substantial proportion of whom lack legal documentation. Malé, the capital, which is one of the most densely populated cities in the world, produces a host of environmental challenges, including significant air pollution owing, inter alia, to a lack of green spaces.

14. In 2008 Maldives adopted a new Constitution that instituted a multiparty system of democratic governance. However, institutional, legislative and structural challenges persist, preventing the full enjoyment of fundamental rights introduced in the 2008 Constitution and undermining the ability of oversight institutions to ensure effective checks and balances.¹² Efforts to address these problems are ongoing. The Strategic Action Plan 2019–2023, which outlined the Government’s development agenda, included extensive references to the

⁸ Article 23, on economic and social rights, states that every citizen has certain rights pursuant to the Constitution and that the State undertakes to achieve the progressive realization of those rights by reasonable measures within its ability and resources.

⁹ It should also be noted that, pursuant to article 9 (d) of the Constitution of Maldives, a non-Muslim may not become a citizen of Maldives, a limitation that was critiqued during the universal periodic review.

¹⁰ Government of Maldives and the United Nations, *Maldives SDG Roadmap* (2022).

¹¹ United Nations Environment Programme (UNEP), “Environmental rule of law and human rights in Asia Pacific: supporting the protection of environmental human rights defenders” (Nairobi, 2023).

¹² [A/HRC/WG.6/36/MDV/1](#).

importance of human rights, with particular emphasis on children, persons with disabilities, older persons and women.¹³ The issuance of a 20-year national development plan has been promised by President Mohamed Muizzu.¹⁴

15. Since the 1970s, Maldives has experienced rapid economic and population growth. In recent years, Maldives became an upper middle-income country, with per capita gross domestic product (GDP) exceeding \$20,000 per year prior to the coronavirus disease (COVID-19) pandemic. The first resort island in Maldives opened in 1972, and tourism currently dominates the economy, with 2 million annual visitors, generating approximately 30 per cent of the nation's GDP. Fishing, manufacturing, construction and transport are also significant sectors. This economic prosperity has spurred social advances, including high literacy rates and a doubling of life expectancy from 40 years to 80 years.

16. Foreign debt is major concern in Maldives, affecting the ability of the Government to invest in critical sectors such as health, education, infrastructure, environmental protection and climate action (both adaptation and mitigation). The World Bank warns that Maldives is at high risk of debt distress. Debt-servicing costs are approaching \$900 million per year, or roughly 30 per cent of total government spending.¹⁵ The total debt burden of more than \$6 billion contributes to economic instability, exacerbating poverty and inequalities in Maldives. Specific groups of the population requiring specific attention, such as women, children and marginalized communities can be disproportionately affected, facing challenges in accessing necessities, such as housing and clean water, in the remote atolls.

III. Fulfilling the right to a clean, healthy and sustainable environment

17. The mandate of the Special Rapporteur is to promote the implementation of obligations relating to the right to a clean, healthy and sustainable environment. This fundamental human right, supported by Maldives as a leading champion and co-sponsor of General Assembly resolution 76/300, includes clean air, safe and sufficient water, healthy and sustainably produced food, a non-toxic environment, healthy biodiversity and ecosystems and a safe climate. It also includes rights of access to environmental information, public participation in environmental decision-making and access to justice, with adequate remedies. In that context, the visit focused on the challenges Maldives confronts in ensuring respect for and protection and fulfilment of this right, the steps taken so far and future actions being planned.

A. Safe climate

18. As described earlier, Maldives is acutely vulnerable to the climate crisis, which is also a human rights crisis. The climate emergency is interfering with the enjoyment of a wide range of human rights, including the rights to life, health, food, water, housing, an adequate standard of living and a healthy environment, as well as cultural rights and the rights of the child. Potentially vulnerable and marginalized populations, women, children, older persons, persons with disabilities and persons living in poverty, whose adaptive capacity may be limited by lack of resources, are suffering disproportionate impacts.

19. According to research published in 2023, the health risks associated with climate change in Maldives are vast, and they include heat-related illness, water-borne diseases, food and water shortages due to flooding, mental illnesses and an increase in the incidence of vector-borne diseases, which include dengue fever.¹⁶ Researchers described these problems

¹³ Government of Maldives, *Strategic Action Plan 2019–2023* (2019), available at <https://health.gov.mv/storage/uploads/Bxop1dww/fse7lmco.pdf>.

¹⁴ Presidential address (unofficial translation), 5 February 2024, available at <https://www.presidencymaldives.gov.mv/Press/Article/29735>.

¹⁵ *The Maldives Journal*, “Maldives debt crisis: World Bank expresses concerns”, 11 September 2022.

¹⁶ Lawson Ifeanyi Eya and others, “Readiness of the Maldivian health system to climate change”, *Asia Pacific Journal of Public Health*, vol. 35, No. 2–3 (March 2023), pp. 230 and 231.

as “a matter of urgent concern”.¹⁷ Moreover, for every 1 degree increase in temperature there is a 5 per cent increase in both stillbirths and preterm births.¹⁸

20. Like all States, Maldives has both adaptation and mitigation obligations pursuant to international human rights law. To its credit, it is one of the first countries to have established a road map in response to the initiative of the Secretary-General on Early Warnings for All. This important initiative is intended to ensure that every person on Earth is protected from hazardous weather-, water- and climate-related events through life-saving early warning systems by the end of 2027. The Climate Emergency Act 9/2021¹⁹ is an important law, one objective of which is the ability “to provide a mechanism to protect human rights from detrimental climate changes”. At the twenty-eighth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, held in Dubai, Maldives announced its ambition to plant 5 million trees in 5 years. Land reclamation, which is a major element of the country’s adaptation efforts, is discussed in detail in section 1 below.

21. In its updated nationally determined contribution under the Paris Agreement, Maldives committed to a reduction of its greenhouse gas emissions by 26 per cent by 2030. Maldives also established the goal of becoming carbon neutral (or having net zero carbon emissions) by 2030. Although admirable in theory, the goals are unlikely to be met unless there is a rapid acceleration in the shift to renewable energy. Electricity and transport systems in Maldives are heavily dependent on fossil fuels, with less than 10 per cent of electricity being generated using solar photovoltaic panels; the vast majority of electricity is produced by burning diesel fuel.

22. Furthermore, the country’s heavy reliance on imported fossil fuels for generating electricity and fuelling transportation is expensive, contributes to air pollution, undermines the nation’s international reputation as a leading voice for climate justice and poses a massive obstacle to achieving carbon neutrality. In 2022, Maldives imported more than 800,000 tons of fuel.²⁰ The three major categories of imported fuel are diesel for electricity generation, petrol for vehicles and gas for cooking.²¹

23. Fossil fuel subsidies for electricity and petrol cost the Government hundreds of millions of dollars annually.²² The Asian Development Bank published a damning indictment of the situation, identifying barriers to a clean energy transition, including a weak policy and regulatory environment, limited development of local energy sources, inefficient energy use and lack of long-term energy planning.²³ According to the Asian Development Bank, diesel electricity generation costs range from \$0.30 to \$0.70 per kilowatt-hour, approximately three to seven times higher than recent costs of producing solar electricity in Maldives.²⁴

24. The rapidly declining cost of renewable energy, particularly solar power, provides a huge opportunity for Maldives. In 2022, 63 investors expressed interest in a major solar project in Maldives; a record low price of just under \$0.10 per kilowatt-hour was received.²⁵ As reported by experts in a World Bank report, “moving from a fossil-based to a renewable-based energy model is the best way to make electricity cheaper for everyone, reduce the fiscal risks and protect this pristine island paradise”.²⁶ Installed solar electricity generating capacity in Maldives jumped from 4 megawatts in 2014 to 37 megawatts in 2023, a good start that

¹⁷ Ibid.

¹⁸ Matthew Francis Chersich and others, on behalf of the Climate Change and Heat-Health Study Group, “Associations between high temperatures in pregnancy and risk of preterm birth, low birth weight, and stillbirths: systematic review and meta-analysis”, *The BMJ*, vol. 371 (November 2020).

¹⁹ See https://climate-laws.org/document/climate-emergency-act-act-no-9-2021_706a.

²⁰ Ministry of National Planning, Housing and Infrastructure, *Maldives Second Voluntary National Review on the Implementation of the Sustainable Development Goals Maldives* (Malé, 2023).

²¹ *Maldives Financial Review*, “Maldives set to spend more on fuel in 2022”, 3 March 2022.

²² Malika Shahid, “Three-fold rise in fuel and electricity subsidies this year”, *The Edition*, 12 October 2023.

²³ Asian Development Bank, “Sector assessment (summary): energy” (2020), available at <https://www.adb.org/projects/documents/mld-46122-005-rrp>.

²⁴ Ibid.

²⁵ Guangzhe Chen, Amit Jain and Simon Stolp, “Why the Maldives 5 MW solar project is a game changer”, *World Bank Blogs*, 12 January 2023.

²⁶ Ibid.

needs to be accelerated.²⁷ In Barbados, another small island State with limited land area that is a global champion for climate justice, capacity jumped from 1 megawatt in 2014 to 70 megawatts in 2023, nearly double that of Maldives.²⁸

25. The Government recently set a goal to attain 33 per cent of electricity production through renewable energy by 2028 and to create a rooftop solar programme. The implementation of the programme needs to be accelerated and scaled up, however. Fossil fuel subsidies should be redirected to support renewable electricity, electric mobility and electric cooking. High quality combined solar power and electricity storage initiatives are under way, funded largely by international financial institutions, including the World Bank and the Asian Development Bank. The Accelerating Sustainable Private Investment in Renewable Energy and Accelerating Renewable Energy Integration and Sustainable Energy projects are both expected to install more than 53.5 megawatts of solar capacity and 50 megawatt-hours of battery storage. Another project, Preparing Outer Island for Sustainable Energy Development, is designed to install solar hybrid systems in 160 islands across Maldives.

26. Maldives must leave no stone unturned in its quest to obtain climate financing. Wealthy States have moral and legal obligations to increase the availability of funding, including through more significant contributions to the recently established Loss and Damage Fund. The Government could also reach out to the Just Energy Transition Partnership for financing to accelerate the switch to renewable energy. This partnership, led by the European Union, Canada and the United States of America, has already pledged more than \$40 billion in capital to States, including Indonesia, Senegal, South Africa and Viet Nam.²⁹ To date, it does not appear that any small island States have been beneficiaries of funding from the Just Energy Transition Partnership: Maldives has a compelling case to be the first. Other attractive options are debt for renewables swaps or debt for climate swaps, whereby creditors reduce debt obligations in exchange for commitments to invest in specified renewable energy or other climate actions.³⁰

27. There is an impressive electric transport system on Villingili, involving buses, electric motorcycles and electric bicycles. The island is noticeably cleaner and quieter than other islands. Electric buses operated by the Maldives Transport and Contracting Company employ solar powered charging stations, contributing to reduced greenhouse gas emissions, cleaner air, less noise and a greener, cleaner and healthier island. This concept should be expanded to other islands, including Malé, Hulhumalé and Ras Malé, through subsidies for electric bikes, electric motorbikes and electric vehicles.³¹

28. In 2021, the Government introduced “Hakathari”, an energy efficiency labelling programme for appliances and equipment such as refrigerators and air conditioners. The programme provides information to consumers about energy-saving appliances and equipment using simple five-star ratings. The impact of the programme should be evaluated and, if necessary, complemented with energy efficiency regulations that prevent the sale of inefficient appliances and equipment.

Land reclamation

29. One of the most controversial environment and human rights related topics in Maldives involves land reclamation. The process, which involves the dredging of sand to expand existing islands or create new islands, has been accelerated in recent years, after the devastating Indian Ocean tsunami in 2004, through the introduction of the “Safe Islands” development programme. Associated activities, including channel blasting, harbour

²⁷ International Renewable Energy Agency, *Renewable Capacity Statistics 2024* (2024), p. 21.

²⁸ *Ibid.*, p. 22.

²⁹ See <https://dgap.org/en/research/glossary/climate-foreign-policy/just-energy-transition-partnerships>.

³⁰ Michael Iveson, “‘Debt-for-renewables’ swaps: how to address climate, debt and energy sector vulnerabilities in Sri Lanka” (Colombo, Lakshman Kadirgamar Institute of International Relations and Strategic Studies, 2023); and Soyoung Oh, “How debt-for-climate swaps can help solve low-income countries’ crushing debt and environmental challenges at the same time”, *The Conversation*, 31 October 2022.

³¹ See <https://atolltimes.mv/post/news/6925>.

development and the construction of jetties and breakwaters, also pose significant threats to the marine and coastal environments. Nearly two thirds of inhabited islands in Maldives have undergone substantial changes through land reclamation since 2006.³² The rationale forwarded by the Government for such activities include social, economic and environmental arguments, notably that additional land is needed for housing, infrastructure and industry. Land reclamation is also justified as a means of adapting to climate change, in particular to the threat of rising sea levels. The Intergovernmental Panel on Climate Change reports that land reclamation is potentially effective in reducing the risks from sea level rise.³³

30. Opponents of land reclamation assert that the process causes damage, including the destruction of coral reefs and lagoons, ecosystems that are not only environmentally sensitive and valuable but also the source of the livelihoods and cultures of local populations. Critics also argue that the main beneficiaries of land reclamation are often foreign businesses and the economic and political elite of Maldives. Although individual environmental impact assessments are conducted for land reclamation projects, it does not appear that, despite the escalating pace and magnitude of development, assessments are being carried out to gauge the cumulative risk to biodiversity, the health of reef ecosystems, local livelihoods and human rights across Maldives.

31. There is extensive scientific evidence to support the position that land reclamation causes significant environmental damage.³⁴ In the words of the Intergovernmental Panel on Climate Change, “Land reclamation and coastal protection structures negatively impact coastal and marine ecosystems, including reefs and mangroves, which compromise the protection services that they deliver to island communities through wave energy attenuation and sediment supply and may impact the long-term sustainable adaptive planning of islands. In addition, these construction activities disrupt natural coastal processes, thereby causing coastal erosion, which in turn increases the risk of flooding”.³⁵ The Intergovernmental Panel on Climate Change concluded that reclamation causes “widespread ecosystem destruction”.³⁶

32. Maldives appears to be stuck between a rock and a hard place. While the Government must act to protect its extraordinarily vulnerable islands from the existential threat of rising sea levels, reclamation projects damage natural defence mechanisms, jeopardize marine biodiversity and sabotage the ecosystems that attract millions of tourists annually.

33. Moreover, land reclamation projects for purposes of climate adaptation should be distinguished from projects done for luxury tourism. If land reclamation for climate adaptation could be done in a genuinely sustainable manner, with the full participation and support of local communities, it could be a valuable means of building resilience and adapting to the inevitable impacts of the climate emergency. This is true, not only for Maldives and other atoll nations, but for many small island States and vulnerable, low-lying coastal communities.

34. Healthy coral reefs, mangroves and seagrasses reduce the risk of damage from extreme weather events for coastal communities, which include all inhabited islands in Maldives. Reef structures and mangrove forests dissipate wave energy, and mangroves also provide critical habitat for fish and contribute to sedimentation that raises land levels. Seagrasses minimize soil erosion, stabilize coastlines and support local fisheries. Reef, mangrove and seagrass restoration are important activities needed to complement land reclamation. Restoration helps to conserve biodiversity, sustain local livelihoods, produce sediments that sustain shorelines and dissipate wave energy, thus reducing flooding risks. Healthy reefs also grow upwards, countering sea level rise.

³² Virginie K.E. Duvat and Alexandre K. Magnan, “Rapid human-driven undermining of atoll island capacity to adjust to ocean climate-related pressures”, *Scientific Reports*, 22 October 2019.

³³ Intergovernmental Panel on Climate Change, *Special Report on Oceans and Cryosphere in a Changing Climate* (Cambridge, United Kingdom, and New York, Cambridge University Press, 2019), p. 33. See also p. 393.

³⁴ Duvat and Magnan, “Rapid human-driven undermining of atoll island capacity to adjust to ocean climate-related pressures”. See also <https://www.maldivescoral.org/projects>.

³⁵ See Mycoo and others, “Small islands”.

³⁶ Ibid.

B. Safe and sufficient water

35. Fulfilling the right to safe and sufficient water has been a major challenge for Maldives. As of 2019, 78 per cent of the population had access to piped water in their homes, while 86 per cent had access to sewage networks.³⁷ While groundwater is found on some islands, it is limited in quantity and often contaminated by human waste and saltwater intrusion. Some households collect rainwater, although the maintenance of such systems, which involves the cleaning of roofs and tanks, is uneven and is made more difficult by the erratic and unpredictable precipitation patterns attributed to the climate crisis. Some islands have communal water tanks. During the dry season, the Government delivers water by tanker to approximately 80 islands. This is expensive and polluting, however, because of the quantity of fuel used. In addition, delivery can be delayed or cancelled owing to bad weather and stormy seas, leaving people without an adequate water supply. This approach should be replaced by more sustainable solutions, including increased attention to protecting and replenishing groundwater.

36. Water in Maldives is increasingly provided by desalination plants, which, if powered by renewable energy, provide a reasonably sustainable solution. A recent \$25 million government project, with support from the United Nations Development Programme (UNDP) and the Green Climate Fund, improved access to safe drinking water for 20,000 people on 29 islands, improved groundwater quality for 49 islands, supported the development of the Water and Sewerage Act 8/2020, and will save millions of dollars in the future by reducing costs of delivering water during dry seasons. In a recent collaboration between China and Maldives, five desalination plants were built, powered by solar and wind systems, at a total cost of \$13 million.³⁸ Each plant has the capacity to produce 200,000 litres of water daily.

C. Non-toxic environments where people can live, work, learn and play

1. Waste management

37. Maldives has serious waste management problems, including open burning, dumping of waste and microplastic contamination. Litter is ubiquitous, cluttering streets, beaches, the ocean and the roots of trees. Public trash receptacles, which are insufficient to the needs of the population, are overflowing with garbage. With a growing population, increasing wealth and rapidly rising numbers of tourists, the volume of garbage produced has skyrocketed, jumping roughly 60 per cent in recent years.³⁹

38. Hundreds of tons of trash from the greater Malé region and from tourist islands are transported daily to an immense garbage dump on Thilafushi. While the burning of waste on Thilafushi is no longer permitted, it continues to take place on more remote islands, producing carcinogenic smoke and depositing toxic substances in the soil and in the water, threatening both human and ecosystem health.⁴⁰ According to scientists, the findings highlight the need for immediate changes in waste management policies in the Archipelago, in order to reduce the release of persistent organic pollutants in the fragile local environment.⁴¹

39. In 2022, Maldives enacted the Waste Management Act 24/2022, its first waste management law. Actions are under way to address the garbage problem, including planned separation of waste streams, closed containers for waste transfer between islands, a

³⁷ Ministry of National Planning, Housing and Infrastructure, *Maldives Second Voluntary National Review*.

³⁸ Mariyath Mohamed, “Desalination plants in five islands established through China aid”, *The Edition*, 31 January 2024.

³⁹ Toby B. Patti and others, “Spatial distribution of microplastics around an inhabited coral island in the Maldives, Indian Ocean”, *Science of The Total Environment*, vol. 748 (December 2020).

⁴⁰ Andrea Colombo and others, “Maldives: an archipelago that burns. A first survey of PCDD/Fs and DL-PCBs from human activities”, *Science of The Total Environment*, vols. 497–498 (November 2014), pp. 499–507.

⁴¹ Ibid.

13-megawatt waste-to-energy incinerator and a biodigester for organic waste. Unfortunately, owing to a last-minute addition to the Act, the importation of waste from other nations is permitted. Given the garbage challenges facing Maldives, that provision should be repealed.⁴²

40. Waste management centres, which have been established on 79 islands and are promised for 100 more, are generally not fenced, not coordinated and do not separating waste streams into recyclable materials, compostable materials and residue. Many sewage and wastewater systems in Maldives are rudimentary, consisting of simple collection systems, with little treatment. Raw sewage effluent and solids are discharged through pipes into the ocean, threatening lagoons, beaches and reefs.⁴³

41. Researchers have identified “one of the highest densities of microplastics found anywhere on the planet” in coastal waters adjacent to Maldives.⁴⁴ The country, somewhat surprisingly, ranks among the world’s worst plastic polluters on a per capita basis.⁴⁵ Plastic water bottles and other forms of plastic trash, including discharges of sewage and wastewater, are evident on streets, beaches and floating in the ocean around Maldives because of the inadequate solid waste management system, revealing a lack of environmentally responsible behaviour. Trash is also transported into the waters of Maldives by currents from neighbouring countries. Plastic pollution, in particular, is not only ugly but threatens human health, wildlife and ecosystems.

42. Maldives recently introduced a ban on certain types of single-use plastics.⁴⁶ The production, import and use of the following single-use plastic items were banned: drinking straws, plates, cutlery and stirrers, small plastic shopping bags (less than 30 by 30 centimetres) and drinking cups (holding less than 250 millilitres), styrofoam food containers, cotton buds with plastic stems and travel-size shampoo, soap, conditioner and lotion bottles. This is a good initiative, which must be implemented and enforced in order to be effective.

43. It should be noted that waste incineration can cause additional problems, including toxic air pollution and toxic residue. Strong environmental standards based on the best available science need to be established before the Thilafushi incinerator comes into operation. Smaller incinerators on other islands should also be governed by strong environmental standards and must be located away from local communities and ecologically sensitive areas.

44. “Green Climate-Smart Hospital” policies and strategies adopted to address medical waste is a positive development in the area of waste management. In addition, the Global Environment Facility has provided support for a project that has safeguarded up to 30 tons of polychlorinated biphenyl (PCB)-contaminated transformers and switchgears in temporary storage, including arrangements for the packaging, shipment and final disposal of the contaminated waste at a certified destruction facility abroad.

45. Maldives is encouraged to develop extended producer responsibility programmes to shift the operational and financial burden of waste management to the businesses responsible for creating and importing materials that become waste.⁴⁷ For example, drink containers, which are commonly left as litter throughout the country, should be subjected to a deposit/refund system financed and operated by the industries responsible for their production. Maldives needs to invest in public education on proper waste management (for

⁴² Tony R. Walker, “The Maldives should not become the world’s garbage dump by importing plastic waste”, *Marine Pollution Bulletin*, vol. 189 (April 2023). See also Robbie Newton, “Don’t turn Maldives into world’s garbage dump”, Human Rights Watch, 19 December 2022.

⁴³ Benjamin Cowburn and others, “Can luxury and environmental sustainability co-exist? Assessing the environmental impact of resort tourism on coral reefs in the Maldives”, *Ocean and Coastal Management*, vol. 158 (May 2018), pp. 120–127.

⁴⁴ Toby B. Patti and others, “Spatial distribution of microplastics around an inhabited coral island in the Maldives, Indian Ocean”, *Science of The Total Environment*, vol. 748 (December 2020).

⁴⁵ Stuart J. Barnes, “Understanding plastics pollution: the role of economic development and technological research”, *Environmental Pollution*, vol. 249 (June 2019), pp. 812–821.

⁴⁶ Under the Waste Management Act 24/2022, production and use of single-use plastic is prohibited.

Section 30 (b) includes a ban on all single-use plastic, which was included in the Presidential Decree.

⁴⁷ See British Columbia, Canada, Extended Producer Responsibility Five-Year Action Plan 2021–2026; and British Columbia, Environmental Management Act, Recycling Regulation 449/2004.

example, ending open burning, dealing with food waste and segregating waste) and to strictly enforce rules against littering. A crackdown on littering in Malé prior to the celebration of Ramadan in 2024 was an encouraging initiative, with 100 people fined.⁴⁸

46. Plastic is a growing contributor to the climate crisis. Recent evidence indicates that plastic production causes four times as many global greenhouse gas emissions as air travel.⁴⁹ Given its vulnerability to both plastic pollution and the climate crisis, the impressive diplomatic expertise of Maldives should be employed at ongoing negotiations on a plastic treaty to ensure a strong outcome, based on the right to a healthy environment, including a declining cap on global plastic production.

2. Toxic chemicals

47. A growing number of States have banned highly hazardous pesticides because of the dangers they present to the health of people and ecosystems worldwide. However, pesticide imports in Maldives have risen sharply in recent years, with more than 14 types of potentially carcinogenic pesticides imported in 2021.⁵⁰

48. Additional causes of concern include the chemicals used in the boatbuilding and repair sectors, including formaldehyde, a known human carcinogen, and styrene, a probable human carcinogen, as well as the widespread use of products containing asbestos, a known carcinogen imported in large volumes in asbestos-cement sheets and used in construction.⁵¹ The World Health Organization (WHO) urges States to prohibit the use of all products containing asbestos because of the severe risks of cancer and other diseases.⁵²

49. Recommended actions to address toxic substances include the enactment of a law on hazardous substances, halting of the import and use of all asbestos products and eliminating reliance on cancer-causing pesticides. The Government should also: strengthen occupational health and safety standards in key economic sectors, such as boatbuilding, construction and agriculture;⁵³ increase awareness and understanding about the importance of sound chemical management; and boost national capacity for testing, monitoring and enforcement of rules.

D. Air pollution

50. Despite the remoteness of Maldives and its small population, air pollution is a significant health concern. Annual average levels of fine particulate emissions (PM_{2.5}) in Malé (19 µg/m³) are nearly four times higher than the level recommended by WHO (5 µg/m³). In other parts of Maldives, levels are lower than in Malé but still exceed the levels recommended by WHO.⁵⁴ At certain times of the year, half of air pollution results from transboundary air pollution. It is estimated that 160 premature deaths per year in Maldives are caused by air pollution.⁵⁵

51. Maldives has a National Action Plan on Air Pollutants (2019). Recognizing the link between climate change and air pollution, most of the measures in the National Action Plan were contained in the nationally determined contribution to the Paris Agreement, including

⁴⁸ Uzma Naseem, “One hundred individuals fined for littering on the streets”, *The Edition*, 12 March 2024.

⁴⁹ Nihan Karali, Nina Khanna and Nihar Shah, *Climate Impact of Primary Plastic Production* (Lawrence Berkeley National Laboratory, 2024).

⁵⁰ Ministry of Environment, Climate Change and Technology, *Baseline Assessment on National Use of Chemicals and Associated Risks* (Malé, 2022).

⁵¹ Ibid.

⁵² World Health Organization (WHO), “Elimination of asbestos-related diseases”, March 2014.

⁵³ The proposed occupational health and safety bill should be enacted and should apply equally to all workers, both resident and migrant.

⁵⁴ Krishnakant Budhavant and others, “Apportioned contributions of PM_{2.5} fine aerosol particles over the Maldives (northern Indian Ocean) from local sources vs long-range transport”, *Science of The Total Environment*, vol. 536 (December 2015), pp. 72–78.

⁵⁵ WHO, *Monitoring Progress on Universal Health Coverage and the Health-Related Sustainable Development Goals in the WHO South-East Asia Region: 2023 update* (New Delhi, WHO Regional Office for South-East Asia, 2023), p. 61.

the expansion of solar electricity generation, improving the energy efficiency of air conditioners and refrigerators and reducing the open burning of waste. If implemented, those actions would reduce greenhouse gas emissions by 26 per cent and fine particulate emissions by 35 per cent. Additional actions, including strengthening and enforcing emission standards for road vehicles and the marine fleet, could result in a 60 per cent reduction in direct emissions of fine particulates, a 40 per cent reduction in black carbon emissions and a 27 per cent reduction in nitrogen oxide emissions by 2030, compared to a business-as-usual scenario; implementation is the primary challenge in this field.

E. Healthy biodiversity and ecosystems

52. The coral reefs, mangrove forests, seagrass meadows, sandy lagoons and other marine ecosystems of the Maldives archipelago are among the most abundant and diverse in the world. In particular, the size, complexity and rich diversity of the coral reef ecosystem, including 1,200 species of fish, make it globally significant. Of the more than 100 endangered species in Maldives, most are corals, along with some turtles, sharks, rays and birds.⁵⁶

53. Scientists have expressed their concern about the declining health of coral reefs in Maldives, especially in the more heavily developed central atolls.⁵⁷ The reefs are under pressure from the combination of global climate change (ocean heating and acidification) and localized impacts (land reclamation, pollution and tourism). In 2016, Maldives lost 75 per cent of its corals in a devastating bleaching event. Reductions in coral abundance and diversity lead to declines in fish and invertebrate populations, harming local communities that depend on those species for their livelihoods and undermining the long-term health of the reefs themselves.

54. In the 2022 environmental impact assessment for the Addu city land reclamation project it was estimated that 20.88 hectares of coral reef would be lost, representing a cost of \$340.6 million to \$851.5 million (up to 10 times the budgeted cost of the reclamation project).⁵⁸ The loss of 98 hectares of seagrass meadows in the same environmental impact assessment was estimated at a cost of \$3.7 million.⁵⁹

55. Mangroves provide resources for local communities and are important as nurseries for reef fish species, bird habitats and a variety of vital ecosystem services. Destruction and reclamation of mangroves and coastal areas for the development of infrastructure deprives women of natural resources that they depend on for their livelihoods, leading to their increased financial dependence and vulnerability within the household. This is what happened when an extensive area of mangroves was destroyed to build the Kulhudhuffushi airport.⁶⁰ The economic, social and cultural rights and the right to a healthy environment of hundreds of women reliant on making and selling natural handicrafts were violated. Coastal vegetation provides many benefits and should be protected whenever possible.

56. Percentages of protected areas in Maldives are well below the international commitment of all States to protect 30 per cent of land and marine territory by 2030 under the Kunming-Montreal Global Biodiversity Framework. Data available indicate that in Maldives, only 2.3 per cent of the terrestrial area is protected and only 0.7 per cent of the marine area, well below other small island nations (for example, Seychelles, which has

⁵⁶ Ministry of Climate Change, Environment and Energy, “Maldives Red List”, 14 February 2022, available at <https://www.environment.gov.mv/v2/en/maldives-red-list>. See also <http://www.earthsendangered.com/search-regions3.asp>.

⁵⁷ Greta Zampa and others, “Patterns of change in coral reef communities of a remote Maldivian atoll revisited after eleven years”, *PeerJ*, 24 October 2023; and Irene Pancrazi and others, “Synergic effect of global thermal anomalies and local dredging activities on coral reefs of the Maldives”, *Marine Pollution Bulletin*, vol. 160 (November 2020).

⁵⁸ *Additional Information - EIA for the Proposed Reclamation Project at Addu City*, September 2022.

⁵⁹ *Ibid.*

⁶⁰ Human Rights Watch, “‘We still haven’t recovered’: local communities harmed by reclamation projects in the Maldives” (2023).

designated protected areas of 62 per cent and 33 per cent, respectively).⁶¹ Rights-based conservation in the identification, designation and management of protected areas requires involvement of local communities, including women and youth.

57. Protected areas in Maldives appear to lack adequate government support. For example, responsibility for the United Nations Educational, Scientific and Cultural Organization (UNESCO) biosphere reserve in Addu Atoll was transferred from the Ministry of Environment to a local city council. Unlike the biosphere reserve in Baa Atoll, the Addu Atoll reserve does not receive financial support from the central government. The Addu Atoll biosphere reserve is a global treasure that deserves the full support of the government of Maldives, including sufficient financial and human resources to develop and implement a management plan to attract more visitors and ensure its sustainability.

58. A recent regulatory change allows dredging for land reclamation in marine protected areas, a change that is not consistent with the Government's obligation to respect the right to a healthy environment.

59. Pollution is an important threat to biodiversity and healthy ecosystems. Scientists have identified the bioaccumulation of contaminants, including insect repellent, antibiotics and sunscreen chemicals, in species of sponges near tourist resorts in Maldives.⁶² In another study, researchers concluded that pesticide use is adversely affecting biodiversity in Maldives.⁶³

60. Several species of threatened and endangered sea turtles are found in Maldives, including olive ridley, green, hawksbill and leatherback turtles. Key threats include the entanglement of sea turtles in ghost fishing gear, their poaching and the destruction of their habitat.⁶⁴ Although turtles are protected, their habitat is not. Maldives banned shark fishing in 2010 and is attempting to reduce illegal, unreported and unregulated fishing through partnerships with Australia and the United Kingdom of Great Britain and Northern Ireland. Maldives provides globally important habitat for tiger sharks, which are a major attraction for tourists.⁶⁵

F. Healthy and sustainably produced food

61. Fishing remains an important part of the economy of Maldives and a major source of nutrients. The key species are skipjack and yellowfin tuna, which are caught using sustainable fishing gear, including the pole and line method and hand lines. The tuna catch represents 98 per cent of the overall fisheries catch in Maldives, roughly half of which is exported. Since 2005 the volume of the tuna catch has been declining owing to overfishing by other nations and oceanic changes, including increased ocean surface temperatures, linked to the climate emergency.

62. It is important to emphasize the impressively sustainable practices of the Maldivian tuna fishery, including low levels of bycatch, relatively low levels of fuel consumption and catch levels below the country's quotas established by the Indian Ocean Tuna Commission.⁶⁶

⁶¹ See <https://www.protectedplanet.net/country/MDV>; and <https://www.protectedplanet.net/country/SYC>.

⁶² Cristiana Rizzi and others, "Bioconcentration and cellular effects of emerging contaminants in sponges from Maldivian coral reefs: a managing tool for sustainable tourism", *Marine Pollution Bulletin*, vol. 192 (July 2023).

⁶³ Sebastian Steibl, Jonas Franke and Christian Laforsch, "Tourism and urban development as drivers for invertebrate diversity loss on tropical islands", *Royal Society Open Science*, vol. 8, No. 10 (October 2021).

⁶⁴ Katrina Himpson, Simon Dixon and Thomas Le Berre, "Evaluation of sea turtle morbidity and mortality within the Indian Ocean from 12 years of data shows high prevalence of ghost net entanglement", *PLoS ONE*, 9 August 2023.

⁶⁵ Tim Kalvelage, "How solving the mystery of pregnant tiger sharks in the Maldives could help save the apex predator", *The Guardian*, 27 August 2024.

⁶⁶ Kelsey I. Miller, M. Shiham Adam and Adam Baske, "Rates of fuel consumption in the Maldivian pole-and-line tuna fishery" (London, International Pole & Line Foundation, and Maldives, Marine Research Centre, 2017).

It is unfair that European Union fishing fleets catch more skipjack and yellowfin tuna in the Indian Ocean than any State in the region (including Maldives).⁶⁷ A proposal to allow longline fishing for tuna would be a major step backwards for Maldives that should be rejected. A recent presidential decision ensures that longline fishing is still banned in Maldives.⁶⁸

63. A troubling possibility is that changes associated with the climate crisis, including increased ocean surface temperatures, loss of coral reefs and changing patterns of prey species, could completely eliminate the tuna fishery, which employs more than 10,000 people and is at the heart of the healthy diet enjoyed by many people in Maldives (with a per capita consumption of almost 100 kilograms per year).⁶⁹ The loss of the tuna fishery, which would be devastating for the health of the population and its right to healthy and sustainably produced food, would lead to significant social, cultural and economic losses.

64. There are growing concerns about reef fish populations due to increased tourist and local demand, habitat damage caused by land reclamation and coral bleaching caused by the climate crisis and about decreasing catches in the high-value sea cucumber fishery.

G. Procedural elements of the right to a healthy environment

65. In order to fully enjoy their right to a healthy environment, people must have access to information, the ability to participate in decision-making and access to justice, with effective remedies when their rights are being threatened or violated. Some sources raised concerns about delays in gaining timely access to information, extra difficulties getting information about State-owned enterprises and the use of “national security” as an excuse for denying access to information. Other parties criticized public participation opportunities as limited, directed only towards favourable stakeholders (such as local councils) and conducted as “box-checking exercises”. In the words of one individual, there is a “communication gap” between the Government and the people.

66. The environmental impact assessment process is one of the key vehicles for implementing the procedural elements of the right to a healthy environment and achieving sustainable development. While disaster risk reduction measures, such as adequate drainage, should be consistently integrated in environmental impact assessments for land reclamation projects, this is apparently not the case; moreover, recommendations forwarded during the assessment process are not always implemented. Numerous harbour, airport and other land reclamation projects have exacerbated flooding risks, as illustrated by the rise in flooding in Kulhudhuffushi city after a large area of mangroves was destroyed by land reclamation and road construction for the airport.⁷⁰

67. Other critiques directed at the environmental impact assessment process include that they are lacking in new information (information is copied and pasted from previous environmental impact assessment studies), that studies are done in a rush, resulting in a lack of comprehensive seasonal data, that projects are politically pre-approved, that work on projects begins prior to completion of the environmental impact assessment process and that there is a failure to implement the recommendations made in environmental impact assessment. Such assessments should consistently include health and human rights considerations, including the rights of the child and the right to a healthy environment. In this regard, additional resources are required for the Environmental Protection Agency for the monitoring and enforcement of recommendations on mitigation and restoration presented in

⁶⁷ Hussain Sinan and others, “Subsidies and allocation: a legacy of distortion and intergenerational loss”, *Frontiers in Human Dynamics*, vol. 4 (December 2022).

⁶⁸ The President’s Office, “The President decides against implementing Cabinet decision to permit line fishing in Maldivian waters”, press release, 29 August 2024.

⁶⁹ Aishath Nadhiya and others, “The presence of toxic heavy metals in tuna fishes from Laccadive sea and concomitant health risk”, *Radiation Protection Dosimetry*, vol. 199, No. 18 (November 2023), pp. 2224–2228.

⁷⁰ Human Rights Watch, “We still haven’t recovered”. See also Mariyam Afaaf Adam, “Flooding damages homes in Kulhudhufushi, Hoarafushi”, Raajje Television, 1 December 2019.

the assessment reports. Furthermore, those recommendations, rather than being unenforceable suggestions, should be legally binding conditions for the granting of permits.

68. There are a growing number of court challenges to government decisions that are harming or have the potential to harm the right to a healthy environment in Maldives. Disturbing information was provided about cases of local magistrates being influenced by pro-development public pressure to dismiss cases on spurious grounds, and of environmental advocates being harassed for initiating important public interest lawsuits. It is essential to the integrity of the judicial system for magistrates and judges be free from all external influences. An important case involving land reclamation for port development at Gulhifalhu is currently before the Supreme Court, which overturned an interim injunction granted by the High Court to halt dredging.⁷¹

69. Recommendations include training magistrates and judges about human rights and the environment (possibly through UNEP programmes), adopting procedural rules to expedite environmental cases before irreparable damage is done, as was the case in the Philippines,⁷² and encouraging lawyers to represent environmental clients and take on cases based on human rights, potentially as a pro bono element of their practice.

70. Several disturbing accounts were shared of harassment and intimidation, including death threats, against environmental human rights defenders. This is completely unacceptable. The Government should have zero tolerance for this kind of criminal behaviour and should celebrate the work of advocates who are promoting sustainable development and seeking environmental justice. Those individuals responsible for threats and harassment targeting human rights defenders should be investigated and, where appropriate, prosecuted.

71. Human rights complaints related to civil and political rights can be brought to the Human Rights Commission and the Civil Rights Office of the Attorney General. Efforts to ensure that the Human Rights Commission acts in compliance with the Paris Principles established by the Global Alliance of National Human Rights Institutions should continue.

72. Environmental education, as set forth in the Convention on the Rights of the Child, is a right for every child and should be part of the school curriculum in Maldives, from preschool through university. The Green Schools pilot project in seven schools is a promising initiative in this regard.

IV. Related human rights and environment issues

A. Urban planning

73. Access to green space is important to both physical and mental health, especially for children. Although Malé is lacking in green space there are actions that could be taken to gradually improve the situation. There is much more green space in phase I of the Hulhumalé land reclamation project than in Malé, but green space originally planned for phase II has been replaced by additional housing. This unfortunate change in the planning of phase II should be reconsidered.

74. Traffic congestion in Malé is a cause of air pollution and accidents. Maldives should invest in safer infrastructure for pedestrians and cyclists and should improve public transit services. Some streets could be closed to private vehicles, beginning on a trial basis, a strategy that has enjoyed success in many densely populated cities. Encouraging developments in sustainable development planning include a recently finalized urban development policy, as

⁷¹ High Court of Maldives, *Humaida Abdul Ghafoor v. Ministry of National Planning, Housing and Infrastructure and Ministry of Environment, Climate Change and Technology*, case No. 2023/HC-A/267, Judgment, 14 February 2024, available at <https://miveshi.com/wp-content/uploads/2024/04/Unofficial-Translation-High-Court-Judgment-2023-HC-A-267-14-Feb-2024.pdf>.

⁷² See https://lawphil.net/courts/supreme/am/am_09-6-8-sc_2010.html.

well as proposals for a national planning bill, a 20-year development plan and an urban planning and development bill.

B. Gender equality

75. Evidence demonstrates that having more women in government leads to improved environmental protection and performance.⁷³ Unfortunately, women's participation in public institutions in Maldives remains limited. For example, their representation in decision-making bodies, such as the Parliament, and in executive positions remains disproportionately low. Following the election in 2024, women held only three seats in the People's Majlis, (the Parliament) and only 3 out of 22 ministers are women. A positive step forward was the 2019 amendment of the Decentralization Act of 2010, introducing a quota of 33 per cent for the representation of women in local councils. Similar quotas for all public institutions, including Parliament, are encouraged. Gender equality in public institutions is crucial in order to ensure inclusive governance and equitable representation.

76. According to the Intergovernmental Panel on Climate Change, research from Maldives suggests that women and men are not in an equal position in terms of their ability to move or to migrate as a strategy to adapt to climate change.⁷⁴ Women are less able to move or to migrate owing to gender norms, social expectations, economic structures, religious doctrines and cultural practices. In 2022, the Working Group on discrimination against women and girls recommended that women's participation and decision-making in relation to climate change adaptation and risk management initiatives be increased.⁷⁵

V. Conclusions and recommendations

77. As a leading champion of the right to a clean, healthy and sustainable environment, Maldives should strive to achieve a just social and ecological transition, avoiding the traditional economic model that exploits both people and nature for the benefit of a wealthy and powerful minority. This is essential for the country, which faces daunting climate and environmental challenges, as well as systemic inequality. Maldives will only succeed if human rights are placed at the heart of all laws, policies and programmes intended to accelerate climate and environmental progress. This is a legal obligation, not an option.

78. The Government should continue ongoing efforts to respect, protect and fulfil the human right to a clean, healthy and sustainable environment and related human rights by:

(a) Continuing to strengthen its human rights legal and policy framework, including by:

- (i) Amending the Constitution to recognize that every person (instead of every citizen) has the right to a clean, healthy and sustainable environment (article 23);
- (ii) Ratifying the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families;
- (iii) Advocating a human rights-based approach in the ongoing negotiations towards a global plastics treaty, a pandemic prevention, preparedness and response treaty and a business and human rights treaty;
- (iv) Continuing to implement the many useful recommendations related to climate and environmental action made in the universal periodic review of Maldives at the Human Rights Council (concluded in 2020), such as the inclusion of the needs of persons with disabilities in climate adaptation efforts;

⁷³ A/HRC/52/33.

⁷⁴ See Mycoo and others, "Small islands".

⁷⁵ A/HRC/53/39/Add.2, para. 82 (b).

- (v) Enacting a new environmental protection and conservation act that includes the right to a clean, healthy and sustainable environment;
- (vi) Strengthening the environmental impact process by improving access to information, public participation, consideration of health and human rights, improving monitoring and making recommendations in environmental impact assessments legally binding conditions for the granting of permits;
- (vii) Increasing the capacity of the Government to implement, test, monitor and enforce environmental rules, including increased resources for the Environmental Protection Agency to monitor and enforce recommendations on mitigation and restoration made in environmental impact assessment reports;
- (viii) Adopting procedural rules to expedite environmental lawsuits before irreparable damage is done;
- (ix) Ensuring that the Human Rights Commission complies with the Paris Principles established by the Global Alliance of National Human Rights Institutions, in particular the principles relating to the status of national institutions for the promotion and protection of human rights;
- (b) Accelerating climate action by:
 - (i) Rapidly accelerating the shift to renewable energy combined with energy storage, with a target of 50 per cent by 2030 and a longer-term goal of becoming the world's first small island State to generate 100 per cent of its electricity from renewable sources;
 - (ii) Phasing out fossil fuel subsidies for electricity and petrol, with a focus on avoiding potentially adverse effects on low-income residents;
 - (iii) Improving ferry service and public transit service for the most populated islands;
 - (iv) Implementing a subsidy programme for rooftop solar and for electric bikes, scooters, motorbikes and vehicles;
 - (v) Enacting energy efficiency regulations for appliances and equipment, going beyond Hakathari energy efficiency standards and labelling programme;
 - (vi) Pursuing debt for renewables swaps or debt for climate swaps to reduce debt and free up capital for climate-related investments;
 - (vii) Reaching out to the Just Energy Transition Partnership for financing to dramatically accelerate the switch to renewable energy and to provide energy storage;
 - (viii) Proceeding with urgently needed land reclamation projects for climate adaptation, while putting a moratorium on land reclamation for luxury tourism development and additional airports;
 - (ix) Investing in coral reef, mangrove forest and seagrass restoration projects;
- (c) Ensuring safe, sufficient water and adequate sanitation, including by:
 - (i) Applying a rights-based approach to all aspects of water governance, as set forth by the Special Rapporteur in his 2021 report on human rights and the global water crisis;⁷⁶
 - (ii) Taking immediate action to ensure safe and sufficient water for everyone, prioritizing the human rights of people whose rights are currently not being fulfilled;
 - (iii) Using renewable energy to power water desalination plants;

⁷⁶ [A/HRC/46/28](#).

- (iv) Improving wastewater treatment infrastructure to eliminate the discharge of raw sewage and untreated effluent;
- (v) Ensuring high efficiency standards for all equipment using water, including toilets, shower fixtures, appliances and irrigation systems;
- (vi) Protecting groundwater from overexploitation and contamination and restoring the health of aquatic ecosystems;
- (d) Advancing healthy and sustainably produced food, including by:
 - (i) Encouraging the use of drought resistant, high temperature tolerant and short maturity crop varieties and other types of climate-smart agriculture;
 - (ii) Increasing investments in water-smart drip irrigation methods;
 - (iii) Prohibiting the import, manufacture, sale or use of all highly hazardous pesticides (category I and II) and collecting any remaining inventory for safe disposal;
 - (iv) Exploring the use of agrivoltaics, using which crops are grown in shade provided by solar photovoltaic panels;
- (e) Improving air quality, including by:
 - (i) Following the seven steps in the 2019 report of the Special Rapporteur on the right to breathe clean air;⁷⁷
 - (ii) Reviewing and strengthening current regulations and programmes that protect and improve air quality, including emission standards for motor vehicles and the marine fleet;
 - (iii) Enacting strong air quality standards for all waste incinerators and ensuring that all waste incinerators are located away from local communities and ecologically sensitive areas;
 - (iv) Using the most recent guidance from WHO to strengthen air quality standards;
 - (v) Investing in public transportation and safer infrastructure for pedestrians and cyclists;
 - (vi) Further restricting the importation of the most polluting older vehicles;
 - (vii) Phasing out fossil fuel-based electricity generation;
- (f) Detoxifying environments in which people live, work, study and play by:
 - (i) Enacting a strong, rights-based hazardous substances law;
 - (ii) Prohibiting the import and use of all products that contain asbestos;
 - (iii) Prohibiting the use of highly hazardous pesticides as well as pesticides that are carcinogenic;
 - (iv) Repealing the provisions of the Waste Management Act that allow waste to be imported into Maldives;
 - (v) Extending, implementing and enforcing the regulation banning single-use plastics;
 - (vi) Establishing extended producer responsibility programmes for waste streams, including beverage containers, paper, metal, packaging, batteries, e-waste and paint, beginning with an industry-financed and operated deposit/refund system for drink containers;⁷⁸

⁷⁷ A/HRC/40/55, paras. 63–78.

⁷⁸ See British Columbia, Canada, Extended Producer Responsibility Five-Year Action Plan 2021–2026; and British Columbia, Environmental Management Act, Recycling Regulation No. 449/2004.

- (vii) **Advocating a strong, rights-based outcome at the ongoing plastic treaty negotiations, including the right to a clean, healthy and sustainable environment and a declining cap on global plastic production;**
- (viii) **Strengthening occupational health and safety standards in key economic sectors, such as boatbuilding, construction and agriculture;**
- (ix) **Increase awareness and understanding about the importance of sound chemical management among government agencies, businesses, residents and the public;**
- (x) **Creating educational programmes for residents and tourists to reduce the risks of chemicals in insect repellents, antibiotics and sunscreen that threaten biodiversity;**
- (g) **Protecting and restoring healthy ecosystems and biodiversity, including**
by:⁷⁹
 - (i) **Employing a rights-based approach to all aspects of conservation, as emphasized in the 2022 Kunming-Montreal Global Biodiversity Framework;**
 - (ii) **Designating additional protected areas to meet the international commitment of all States to protect 30 per cent of land and marine territory by 2030 under the Kunming-Montreal Global Biodiversity Framework;**
 - (iii) **Adding green space in urban areas, including more publicly accessible beaches;**
 - (iv) **Increasing financial and human resources to develop and implement management plans for protected areas, beginning with the UNESCO biosphere reserve in Addu Atoll;**
 - (v) **Rejecting or reversing the recent proposal to permit the use of longline fishing in the tuna fishery, which will increase bycatch of endangered species, including turtles and sharks, harm nature, jeopardize tourism and erode the reputation of Maldives for sustainable fishing;**
 - (vi) **Reversing the recent regulatory change that allows dredging for land reclamation in marine protected areas;**
 - (h) **Ensuring access to environmental information, meaningful public participation and access to justice and effective remedies for all, including by:**⁸⁰
 - (i) **Strengthening the legal framework regarding access to information;**
 - (ii) **Ensuring equitable representation and participation of women, particularly rural women, in the development of legislation, policies and programmes on the climate crisis, environmental protection, disaster response and disaster risk reduction, all of which should include a gender perspective;**
 - (iii) **Ensuring the effective participation of women, particularly rural women, in planning and decision-making for natural resource management;**
 - (iv) **Addressing the impact of the climate crisis on women's access to resources and livelihoods and, where necessary, providing remedies and compensation for loss of livelihoods;**
 - (v) **Ensuring development projects that do not undermine the rights of women, particularly rural women, and their livelihoods and guaranteeing that such projects are permitted only after consultations and decision-making processes involving women;**
 - (vi) **Enabling affordable and timely access to justice and effective remedies for all;**

⁷⁹ [A/75/161](#).

⁸⁰ See framework principles on human rights and the environment, [A/HRC/37/59](#), annex.

- (vii) Partnering with UNEP to provide judicial education programmes on environmental law and climate law;
- (viii) Incorporating environmental education throughout the entire educational curriculum, from preschool through university;
- (ix) Providing strong protections for environmental human rights defenders, diligently investigating, prosecuting and punishing the perpetrators of crimes against human rights defenders and increasing civic space for conversations about human rights.

79. Regarding the global climate crisis, which poses immediate and existential threats to Maldives, wealthy States in the global North should:

- (a) Rapidly accelerate efforts to provide the required levels of financial and technological assistance, including funding for loss and damage, adaptation and mitigation to especially climate vulnerable nations, such as Maldives, where the impacts of the climate crisis are already severe;
- (b) Provide grant funding to finance the shift from diesel to solar and wind plus storage for electricity generation and the electrification of the transportation sector in Maldives;
- (c) Increase the ambition and equity of actions to phase out fossil fuels, end deforestation, rapidly reduce greenhouse gas emissions and protect and restore natural carbon sinks;
- (d) Apply the multidimensional vulnerability index instead of per capita GDP when determining eligibility for climate finance, concessional loan rates, debt relief and development assistance.

80. To close on an optimistic note, it is worth noting that scientists have conducted remarkable experiments in Maldives to revive damaged coral reefs by breeding heat tolerant coral larvae and using recordings of fish noises to attract those larvae to damaged reefs.⁸¹ This research illustrates the remarkable ingenuity of human beings and the extraordinary resilience of nature. These techniques will only work, however, if every country in the world, including Maldives, tackles the climate emergency with increased urgency. The conclusion of the Intergovernmental Panel on Climate Change, “Every bit of warming matters, every year matters, every choice matters”,⁸² has special resonance for Maldives and for other atoll nations.

⁸¹ Donna Ferguson, “Scientists’ experiment is ‘beacon of hope’ for coral reefs on brink of global collapse”, *The Guardian*, 20 April 2024.

⁸² Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C*, An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (2018), foreword, p. vi.