United Nations A/HRC/63/27/Add.1

General Assembly

Distr.: General
3 July 2026

English
Original: Spanish

Human Rights Council
Sixty-third session
7 September–9 October 2026
Agenda item 3
Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development

Visit to Mexico

Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Marcos Orellana*

Summary

The Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Marcos Orellana, visited Mexico from 9 to 20 March 2026. In the present report, the Special Rapporteur presents his findings and recommendations to the Government, the international community and business enterprises in the country.

The Special Rapporteur addresses key human rights issues related to the management of hazardous chemicals and waste, such as the proliferation of sacrifice zones; access to justice and to information, and public participation in environmental matters; the environmental rights of Indigenous Peoples; artisanal mercury mining in protected areas; industrial-scale livestock farms located above aquifers; the use of hazardous pesticides; and the pollution of rivers and other bodies of water.

The Special Rapporteur recognizes the commitment and international leadership of Mexico on environmental issues, including the right to a non-toxic environment, and encourages it to sustain this role while developing more effective domestic policies to address the urgent challenges it faces with regard to toxic substances.

* 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 and English only.

Please recycle

Annex

Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Marcos Orellana, on his visit to Mexico

I. Introduction

1. In accordance with Human Rights Council resolution 54/10, the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Marcos Orellana, conducted an official visit to Mexico from 9 to 20 March 2026.[1] During the visit, the Special Rapporteur assessed the efforts of Mexico to address the adverse impacts of toxic substances on human rights, heard testimonies and received updated information on communities and areas particularly affected by pollution.

2. The Special Rapporteur is grateful to the Government of Mexico for inviting him to undertake this country visit and for its excellent cooperation before and during the visit. He extends his thanks to the United Nations country team for its support and to the communities with which he met.

3. The Special Rapporteur met with officials from the Ministries of the Interior, Foreign Affairs, Environment and Natural Resources, Health, Agriculture and Rural Development, Labour and Social Security, and Energy; the National Water Commission, the National Agency for Industrial Safety and Environmental Protection in the Hydrocarbon Sector, the Federal Office for the Protection of the Environment, the National Institute of Ecology and Climate Change, the Prosecutor General's Office, the National Human Rights Commission and the Mexico City Human Rights Commission; the State-owned Federal Electricity Commission; the Supreme Court, the Federal Public Defender Service and the Judicial Administration Body; and the Chair of the House of Representatives Committee on the Environment and Natural Resources. The Special Rapporteur also extends his gratitude to the state governments of Hidalgo, Querétaro and Yucatán. In addition, he held meetings with civil society representatives, community members, private sector actors, academics and journalists.

4. The Special Rapporteur visited the States of Campeche, Hidalgo, Nuevo León, Querétaro, Sonora, Tlaxcala and Yucatán and learned about the situations in the States of Coahuila, Jalisco, Morelos, Puebla, Quintana Roo, San Luis Potosí and Sinaloa. He expresses his gratitude to all those who took the time to share their stories and testimonies.

II. General context

5. Mexico is a country with extensive biodiversity, a major industrial sector and a population of more than 130 million people. These features, combined with the importance to the country of activities such as agriculture, mining and hydrocarbon production, generate a significant amount of hazardous waste. This in turn poses challenges to the effective enjoyment of rights recognized internationally and in the Mexican Constitution, such as the rights to life, to decent work, to health, to water and to food, as well as cultural rights, the rights of Indigenous Peoples and the right to live in a healthy environment free of toxic substances.

[1] The first visit took place in 1998 (see E/CN.4/1999/46/Add.1).

6. The Special Rapporteur commends Mexico for having ratified most international human rights instruments, including the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights, and for having played a leading role in the most important multilateral agreements on hazardous substances and wastes.[2]

III. Environmental governance

7. Environmental governance is essential to give effect to the commitments arising from the legal recognition of human rights, including the human right to a healthy and non-toxic environment. The Special Rapporteur welcomes the constitutional recognition by Mexico of the rights to a healthy environment and to health in article 4 of the Constitution. This recognition imposes a duty on the State to ensure that all structures through which public power is exercised guarantee the free and full exercise of those rights. In Mexico, that duty must be discharged at the municipal, state and federal levels, with coordination among all authorities. The Special Rapporteur also acknowledges the new instruments provided for in national water legislation, such as the General Water Act and the National Water Programme 2026–2030.

8. Mexican legislation includes the General Act on Ecological Balance and Environmental Protection (the Environment Act), which establishes obligations and penalties for companies with regard to the collection, treatment, recycling, incineration or final disposal of hazardous waste; the General Act on the Prevention and Comprehensive Management of Waste (the Waste Act), the objectives of which are to prevent the generation of waste and to establish a management framework that coordinates the responsibilities of the various levels of government and of private entities; and the General Act on the Circular Economy. Adopted in January 2026, the General Act on the Circular Economy aims to shift from a "produce-and-dispose" model to one that prioritizes reduction, reuse, recycling and extended producer responsibility in order to protect the environment. It also prohibits and penalizes corporate greenwashing, namely the practice of using misleading or deceptive advertising to create a false impression of environmental responsibility. The Special Rapporteur was informed that some 200 bills are currently pending before the House of Representatives Committee on the Environment and Natural Resources.

9. There are various Mexican official standards that identify and classify hazardous substances and wastes and establish specifications for their management. However, many of these standards concerning toxic substances appear to be outdated in the light of scientific advances. For example, tailings dams, and the waste they generate, are not classified as hazardous, and the use of drones to spray hazardous pesticides is not directly regulated. The authorities have the significant opportunity – and the challenge – of updating these standards to make them stricter, based on the best scientific evidence, while ensuring public participation and preventing undue interference from the private sector.

10. The Ministry of Science, Humanities, Technology and Innovation began operations on 1 January 2025, replacing the National Council for Humanities, Sciences and Technologies. The Special Rapporteur commends the Government for elevating this institution to ministerial rank, a move that reflects the importance of strengthening the interface between science and policy in environmental matters. The Special Rapporteur also learned of the substantial efforts of the former National Council to conduct research on toxic substances, including hazardous pesticides, and on regions facing health and environmental emergencies. This important research must be translated into appropriate public policies.

[2] 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; and the Minamata Convention on Mercury.

11. The Special Rapporteur notes with concern the persistence of complex socioenvironmental conflicts linked to a model of industrial and economic development that generates large quantities of toxic substances and waste, poisoning ecosystems and people alike. He also highlights the importance of strengthening the environmental goals of Plan México.[3]

12. The Special Rapporteur acknowledges the pressing challenges faced by historically vulnerable groups to whom the State owes a debt, particularly in their quest for access to justice and reparations. The Special Rapporteur also acknowledges the efforts of the Federal Public Defender Service to defend socioenvironmental rights. The most severe impacts of pollution disproportionately affect Indigenous Peoples; women, who are further affected by gender roles and by decisions taken within highly toxic industries whose hierarchies are dominated by men;[4] children and young people; people living in poverty; older persons; and human rights defenders.

A. Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement)

13. The Escazú Agreement represents a crucial step forward for humanity in the effort to protect the environment. The Special Rapporteur acknowledges the leadership of Mexico in negotiating the Agreement and its efforts to implement it. Rulings by the Supreme Court draw on the standards and criteria set forth in this treaty. The federal judiciary has developed protocols and manuals based on the Agreement, such as the Protocol for Adjudicating Cases Involving Access Rights in Environmental Matters of 2023.

14. The Special Rapporteur is concerned about attacks against environmental defenders in Mexico. One positive development in this regard is the inclusion, in January 2026, of the Ministry of the Environment and Natural Resources as a guest authority on the Governing Board of the Protection Mechanism for Human Rights Defenders and Journalists. This should lead to stronger protection plans. Such plans must also take into account the protection of individuals, communities and groups, recognizing environmental defenders as key actors in promoting the right to a healthy and non-toxic environment.

15. Access to information is essential to enable people to exercise their right to a healthy environment. Information provided to the public must be supported by reliable data on the presence of waste and toxic substances. The Special Rapporteur received troubling reports regarding the dissolution of the independent body responsible for transparency and access to public information,[5] as well as cases in which authorities have withheld information on the impacts and risks of large-scale projects on grounds of "public interest and national security".

16. The Pollutant Release and Transfer Register is a key tool for the State in developing public policies to prevent and reduce emissions and the generation of toxic waste. However, various stakeholders pointed to delays in updating and systematizing the Register, as well as a lack of incentives for companies to comply with their reporting obligations and the absence of concrete consequences for those who fail to report. For the Register to fulfil its role effectively, the information it contains must be complete, up to date, accessible, easy to understand and communicated in a way that adequately alerts the public to potential risks and impacts. It is also important that this and other similar registers include geographically disaggregated information and be linked to public decision-making processes.

[3] See https://www.planmexico.gob.mx.

[4] A/79/163, paras. 39 and 40.

[5] In 2025, the National Institute for Transparency, Access to Information and Personal Data Protection was replaced by Transparency for the People, a new agency within the executive branch.

17. There are legal mechanisms in place to enable people to exercise their right to participation, such as the environmental impact assessment process. However, the legal framework does not clearly establish what becomes of the results of these consultations, or how decisions reached in participatory forums should influence project approvals and permits.

18. The Special Rapporteur recognizes the important role of the federal judiciary in ensuring access to justice for communities affected by toxic substances. The federal courts are hearing a growing number of environmental cases, most of which are related to water pollution. Recent rulings by the Supreme Court set out relevant criteria regarding standing to file an *amparo* action and the shifting burden of proof. The Special Rapporteur also encourages the National Judicial Training College to continue providing training on environmental cases.

19. The guidelines on access to justice and effective remedies in the context of toxics, which the Special Rapporteur presented to the Human Rights Council in 2025, constitute a concrete road map for achieving environmental justice with regard to toxic substances. In the accompanying report, the Special Rapporteur identifies strategies and best practices for States to address the obstacles that victims of exposure to toxic substances face in accessing justice and effective remedies.[6]

Free, prior and informed consent of Indigenous Peoples

20. The Special Rapporteur recognizes that the authorities' efforts towards active transparency must be expanded, particularly with regard to Indigenous Peoples. One clear opportunity lies in the lithium deposits in Sonora State. The Yaqui people were reportedly neither informed about nor consulted regarding the possible exploration and extraction of lithium[7] on their territory. Such a situation would constitute a violation of the standards of the International Labour Organization (ILO) Indigenous and Tribal Peoples Convention, 1989 (No. 169),[8] to which Mexico is a Party.

21. The State must assume a stronger role as a guarantor of rights, especially after declaring lithium a resource of public utility and taking on the role of administrator throughout its entire value chain.[9] This strengthened role is essential in a region facing drought, the use of toxic agrochemicals, monoculture and violence against the Yaqui people, where these projects would affect their rights to their lands, territories and resources.[10]

22. The Special Rapporteur highlights as a best practice the initiatives of the Supreme Court in the context of its knowledge-sharing dialogues with Indigenous Peoples. He was briefed on meetings held with Indigenous Peoples in various regions of the country, aimed at addressing their needs and designing programmes to integrate their traditional knowledge and practices into the work of the judiciary.

B. Multilateral environmental agreements

1. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention)

23. The Basel Convention requires States to control the transboundary movement of hazardous wastes through a mechanism that includes prior consent, prohibitions and environmentally sound management, among other measures, in order to prevent adverse effects on human health and the environment.[11]

[6] A/HRC/60/34.
[7] See https://www.gob.mx/cms/uploads/attachment/file/997358/Decreto_por_el_que_se_declara_zona_de_reserva_minera_de_litio_la_denominada_Li-MX_1.pdf.
[8] See https://www.gob.mx/cms/uploads/attachment/file/30118/Convenio169.pdf.
[9] Mining Act, last amended in 2023, arts. 5 bis and 10.
[10] CERD/EWUAP/2026/CS/BJ/ks.
[11] A/HRC/57/52, para. 48.

24. The Special Rapporteur acknowledges the entry into force for Mexico in 2022 of the amendment to the Basel Convention adopted in 1995,[12] which is intended to prohibit any transboundary movement of hazardous wastes and other wastes from States members of the Organisation for Economic Co-operation and Development, among others, to States that are not members of that organization. In addition, the amendments to the Basel Convention adopted in 2019 with regard to plastic waste entered into force for Mexico on 1 January 2021.[13]

25. The Special Rapporteur was made aware of the increase in waste entering Mexican territory. Much of this waste is burned as a cheap fuel for industry, under the label of "co-processing", yet burning waste is the end point of a linear economy and is wholly at odds with a circular economy. Ultimately, cheap fuel comes at a high cost to people's health, as these practices generate significant environmental and health externalities.

26. The Special Rapporteur received information regarding shipments from the United States of America of used lead-acid batteries and plastic waste intended for "recycling", which are reportedly generating significant toxic emissions.

2. Minamata Convention on Mercury

27. Mercury is an element that is extremely hazardous to human health and the environment. It is persistent, evaporates at room temperature and can even cross the human placenta, causing disabilities and having serious impacts on future generations. The Minamata Convention on Mercury aims to address the entire life cycle of mercury in order to protect human health and the environment. Mexico has spearheaded a gender strategy under the Convention.

28. One of the permitted uses of mercury under the Convention is in small-scale gold mining. Globally, however, this activity is the largest source of mercury emissions and releases into the environment. Although gold mining using mercury takes place mainly in countries of the Amazon basin, in recent years Mexico has become one of the largest sources of mercury, and organized crime is often involved in its distribution chain.[14] High gold prices are driving strong demand for mercury to supply an international market that is unconcerned about the origin of the gold or the methods used to extract it.

29. The Special Rapporteur acknowledges that Mexico has made considerable efforts since the Convention entered into force, for example, by ceasing to grant permits for cinnabar (mercury) mines. It also receives support from the Global Environment Facility to assess alternative livelihoods for people who depend on this type of mining. Since 2020, the Federal Office for the Protection of the Environment has been involved in detecting and seizing shipments of mercury bound for South America, as well as in efforts to develop a road map and a protocol to combat illicit trafficking in mercury. The authorities reported that there are 71 checkpoints and inspection stations across 20 federative entities, where approximately 150,000 inspections are conducted annually. In addition, the Prosecutor General's Office is currently compiling federal investigative files on criminally relevant acts related to the illicit trafficking and storage of mercury and its derivatives, including cinnabar.

Artisanal mercury mining in the Sierra Gorda region of Querétaro State

30. The Special Rapporteur was informed that when the Minamata Convention on Mercury entered into force for Mexico in 2017, there was no mercury mining in the region. With the sector's revival, the number of miners has grown from about 350 at the start of Global Environment Facility Project No. 10086[15] in 2021 to more than 3,000 today. In addition, the number of backyard kilns used in homes for artisanal extraction has increased significantly. The coronavirus disease (COVID-19) pandemic led many residents of the area to take up these activities again for lack of employment.

[12] See https://www.dof.gob.mx/nota_detalle.php?codigo=5660548&fecha=08/08/2022#gsc.tab=0.
[13] A/76/207, paras. 57–62.
[14] A/HRC/51/35, paras. 3, 117, 118 and 122.
[15] See https://www.thegef.org/projects-operations/projects/10086.

31. The Special Rapporteur met with miners who have engaged in this activity all their lives, some for generations. Many of them told the Special Rapporteur that Project No. 10086 had increased their knowledge and awareness of the dangers associated with mercury. Their testimonies indicated that this work seriously affects their health, depriving them of the ability to care for themselves and leaving them in urgent need of medical attention. Many also find the transition to alternative livelihoods difficult and uncertain amid a lack of employment.

32. According to data from academia, the Sierra Gorda region of Querétaro State is facing serious public health impacts as a result of pollution in the area.[16] The Special Rapporteur was informed that mercury levels in the soil were up to 500 times higher than international reference values, posing a risk of atmospheric dispersion and harm to the local ecosystem. It is worth noting that the Sierra Gorda Biosphere Reserve is a protected natural area. Various persons involved in this activity have documented neurological, renal and cardiovascular risks and damage, as well as possible metabolic disorders.

33. Although the authorities – with support from the Global Environment Facility project – are making efforts, including by conducting water quality studies and blood and urine tests for miners, Mexico continues to face a major challenge with regard to the people who make their living from this activity. The authorities should strengthen their support for artisanal cinnabar miners in order to facilitate a just transition to other occupations and to ensure adequate medical care, given the chronic exposure associated with their work and the presence of contaminants in the soil, air and bodies of water.

3. Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention)

34. The Stockholm Convention is a cornerstone of global efforts to combat the poisoning of people and the environment through the control of persistent organic pollutants. This instrument establishes specific obligations with regard to polychlorinated biphenyls (PCBs), which must be identified, phased out of use by 2025 and properly managed by no later than 2028.[17]

35. The Special Rapporteur commends Mexico for the significant progress it has made, with the support of the United Nations Development Programme, in destroying more than 8,000 metric tons of equipment contaminated with PCBs.[18] Challenges nonetheless remain with regard to equipment in the chemical industry and other companies that still use contaminated electrical transformers.

36. Of particular note are the collection of 67 metric tons of obsolete pesticides[19] and the presentation of the initial national implementation plan in 2008, together with its subsequent updates.[20] Challenges nonetheless remain with regard to the use of perfluorooctane sulfonate (PFOS),[21] the importation of hexabromocyclododecane (HBCD or HBCDD)[22] and the management of electronic and electrical waste, which totalled more than 1 million metric tons in 2020.[23]

37. In 2025, the Parties to the Stockholm Convention agreed to add chlorpyrifos to the list of prohibited pollutants (Stockholm Convention, annex A), which establishes the obligation to take measures to eliminate the production and use of the chemicals listed in that

[16] See https://www.sciencedirect.com/science/article/pii/S2214999616000151.
[17] A/HRC/57/52, para. 48.
[18] See https://www.undp.org/es/mexico/proyectos/manejo-y-destruccion-ambientalmente-adecuados-de-bifenilos-policlorados-segunda-fase.
[19] See https://www.undp.org/es/mexico/proyectos/manejo-ambientalmente-adecuado-de-residuos-cop.
[20] See https://www.pops.int/Implementation/NationalImplementationPlans/NIPTransmission/tabid/253/Default.aspx and https://faolex.fao.org/docs/pdf/mex219158.pdf.
[21] UNEP/POPS/COP.11/INF/15, p. 23.
[22] UNEP/POPS/POPRC.8/16/Add.3, paras. 10 and 11.
[23] See https://www.undp.org/es/mexico/comunicados-de-prensa/buscan-semarnat-y-pnud-reducir-la-exposicion-residuos-peligrosos-de-aparatos-electronicos.

annex. This insecticide can cause neurological effects, developmental disorders and autoimmune disorders, affecting children in particular.

IV. Sacrifice zones

38. The industrialization and population growth that Mexico has experienced in recent decades have resulted in a large number of sites contaminated with toxic substances. According to the National Inventory of Contaminated Sites, as at December 2025 there were 1,114 registered sites.[24] This figure includes sacrifice zones, where the authorities' efforts and the regulations designed to protect public health and the environment have proven insufficient. In these zones, conditions such as cancer, autism and chronic pain have become commonplace, alongside a rise in miscarriages.

39. This is the situation in the Bajío region, particularly in San Luis Potosí State, as a result of artisanal brick production, in which oils, plastics and cables are burned, all of which are highly polluting. In this area, the presence of polycyclic aromatic hydrocarbons, lead, arsenic, fluorides and cadmium has been documented, along with lung, kidney and neurological damage among the population, particularly in children.

40. While the Special Rapporteur acknowledges that the National Council for Humanities, Sciences and Technologies identified regions facing health and environmental emergencies, the Government must address this challenge through public policies and legal instruments that provide a regulatory framework for their designation and management. Legal instruments that could be used to define such regions exist, such as the General Health Act and the Environment Act; the term "public health and environmental emergency region" coined by the National Council, however, has not been accompanied by supporting legislation or regulations.

A. Fossil fuels, air quality and impacts resulting from refinery and thermal power plant operations

41. The extraction, processing, distribution and combustion of fossil fuels generate large amounts of pollution and toxic chemicals. This disproportionately affects impoverished communities, women, children and young people, as well as Indigenous and campesino communities.[25] The Mexican hydrocarbon sector raises serious concerns related to explosions, spills into soil and bodies of water, and the potential use of methods such as hydraulic fracturing, or fracking, to extract fossil gas, a technique that uses and generates an alarming quantity of toxic fluids that contaminate groundwater, aquifers and other parts of the environment.[26] Toxic waste from this industry, particularly polycyclic aromatic hydrocarbons, can persist for years.

42. Petróleos Mexicanos (Pemex)[27] is the State-owned enterprise responsible for managing hydrocarbons from the exploration stage through to processing, storage, distribution and sale. It currently operates seven refineries. The Special Rapporteur had the opportunity to visit the area surrounding the refinery and the thermal power plant in Tula, Hidalgo, where electricity generation using fuel oil emits large amounts of sulfur.

43. The State reported on challenges related to financing the maintenance of refineries and hydrocarbon pipelines. It is essential that the national budget allocate the resources necessary to prevent accidents. Oil spills continue to threaten food security, ecosystems and communities' livelihoods.[28]

[24] See https://www.dof.gob.mx/nota_detalle.php?codigo=5787688&fecha=18/05/2026#gsc.tab=0.
[25] A/HRC/49/53, para. 9.
[26] A/HRC/41/54, para. 53.
[27] The 2024 constitutional amendment granted Pemex the status of State-owned public enterprise with a predominant role.
[28] A/78/169, para. 43.

44. The Special Rapporteur is concerned about the spill that occurred just days before his visit, which affected communities and ecosystems in Pajapan, Veracruz, and Paraíso, Tabasco, and whose harmful effects persist in the area, as well as about a fire at the Dos Bocas refinery in Tabasco, in which five people lost their lives.[29]

45. The Special Rapporteur received information on exploration and extraction projects included in the Pemex Strategic Plan 2025–2035 in hydrocarbon basins in the States of Coahuila, Nuevo León, Tamaulipas, San Luis Potosí, Hidalgo, Veracruz and Puebla. It is alarming that the Nahua and Téenek Indigenous Peoples of the Huasteca Potosina region were reportedly not properly consulted, even though the authorities are reportedly considering the possible use of fracking.

46. In April 2026, the formation was announced of an interdisciplinary group of scientists, academics and researchers from various institutions to analyse the technical, environmental and energy-related feasibility of extracting gas from unconventional reservoirs.

47. The Special Rapporteur will closely follow up on recent announcements regarding the Government's analysis of the feasibility of fracking. He also emphasizes that the Government's efforts to strengthen energy sovereignty should not exacerbate pollution or the depletion of bodies of water, which are essential to the survival of people and ecosystems.

48. This toxic burden is further exacerbated in areas where other highly polluting industries such as mining and smelting operate, and by irresponsible waste management practices.[30] One example of this situation is the Tula-Tepeji industrial corridor. The situation of the two schools adjacent to the Olmeca refinery in Dos Bocas, Tabasco, is of particular concern to the Special Rapporteur. In May 2026, federal authorities announced that both schools would be relocated within six months.

49. The Special Rapporteur wishes to draw attention to the various projects involving the transport, storage, supply and processing of liquefied natural gas in the Gulf of California. The construction of at least five megaprojects in the area would have adverse effects on the ecosystem and wildlife and could lead to leaks, explosions, the discharge of contaminated water or chemical changes in the environment. The responsible authorities reportedly did not conduct a comprehensive and cumulative assessment of the impacts of these projects, nor did they consult the affected communities.

B. Industrial Corridor in the Mezquital Valley, Hidalgo

50. A number of highly polluting industries are located in the industrial corridor in the Mezquital Valley in the south of Hidalgo. The Special Rapporteur received information on the operations of mining companies, cement companies (including the largest such company in Latin America), steel mills, foundries, the railroad and paper industries, the Miguel Hidalgo refinery and the Francisco Pérez Ríos thermoelectric power plant, which has been operating on fuel oil for many years. Hidalgo State produces raw materials and receives waste, which is a pressing issue for the residents of Atitalaquia, Tula and Atotonilco in Hidalgo, as well as for the residents of Apaxco in Mexico State.

51. The communities and people living in the Tula area are exposed to multiple sources of pollution that are harmful to their health. The issues affecting them include a deterioration in air quality due to industrial activity and the presence of heavy metals, pathogens and organic matter in water systems. Open dumps and landfills and an alarming practice of waste incineration have caused serious illness among the population. Residents have been diagnosed with cancer, in particular colon and rectal cancer, and others have developed allergies.

52. The Special Rapporteur was informed of the dire situation of the Tula River, which is grey or brown in colour, emits strong odours and is reportedly unsuitable for human activity. Although there are two water treatment plants in operation and there are reportedly plans to open another, they cannot keep up with demand. The situation is worse when it rains. At the

[29] See https://www.pemex.com/saladeprensa/boletines_nacionales/Paginas/2026_25_nacional.aspx.
[30] A/HRC/49/53, paras. 9 and 28.

1,260-hectare Endhó Dam, there are large numbers of mosquitoes, and water lilies are present.[31] The children who attend the 22 schools near the Tula River are severely affected by this situation. The reservoir receives wastewater from Mexico City, highlighting the need to address the issue using a basin-based approach and a perspective that takes into account the metropolitan areas. The authorities informed the Special Rapporteur about efforts to address the issue, such as the decree designating the area affected by the Endhó Dam as an ecological restoration zone.[32]

53. In this regard, the Special Rapporteur highlights the 2021–2030 Air Quality Improvement Programme (Proaire) in the Valley of Mexico Metropolitan Area as an example of inter-institutional coordination. The project is being carried out jointly by Mexico City, Mexico State, Tizayuca in Hidalgo State and the Ministry of the Environment and Natural Resources and includes measures for reducing emissions, communicating risks, coordinating between metropolitan areas, monitoring air quality and conducting scientific research.

54. The Special Rapporteur was informed that the planned Hidalgo ecological and recycling park had been cancelled following public consultations in December 2025. The decision reflects the relevant communities' concerns about the many industries that have polluted the region. The planned park will reportedly be established in another part of the country. The new iteration will need to guarantee communities' rights to have access to information and to participate in processes, and the authorities will need to ensure that the relevant environmental studies are conducted.

55. Although state authorities reported that they are stepping up clean-up efforts to address the challenges, the Special Rapporteur calls on the federal authorities to adopt, in close collaboration with state authorities, urgent solutions to address environmental liabilities and remediate pollution in the area, including through monitoring by academic institutions, especially in the light of chronic health impacts.

V. Industrial-scale livestock farming

56. Yucatán State is known for its rich biodiversity, its karstic terrain, its aquifers – which have sustained the surrounding communities, towns and ecosystems for generations – and the presence of Indigenous Peoples, most of whom are Maya. Over the past decade, the number of industrial pig farms has risen uncontrollably and exponentially. The Special Rapporteur has been informed of the existence of numerous industrial poultry farms, the impacts of which are beginning to be felt in the communities where they are located.

57. There are currently more than 500 industrial pig farms, with more than 50,000 animals, located near the lands and territories of Indigenous Peoples. The majority do not have environmental permits and generate enormous amounts of manure and wastewater contaminated with hormones and antibiotics. Many of them have been set up without consultation, even in communities with around 1,500 residents. As a solution, authorities and companies have suggested the installation of biodigesters,[33] which do not solve the problem of toxic waste. Biodigesters do not properly filter the pigs' urine and faecal matter or the medications and hormones injected into the animals, meaning that everything flows into the Maya Aquifer untreated. Only one industrial farm had a water treatment plant, which, although it was not sufficient to treat all the waste generated, worked better than the biodigesters.

[31] An invasive species that prevents oxygen from being transferred from the air to the water, degrading water quality and increasing treatment costs. See https://na.unep.net/geas/getUNEPPageWithArticleIDScript.php%3Farticle_id=98.

[32] See https://www.dof.gob.mx/nota_detalle.php?codigo=5739811&fecha=26/09/2024#gsc.tab=0 and https://dsiappsdev.semarnat.gob.mx/datos/portal/publicaciones/2024/Presa_Endho.pdf.

[33] See https://www.gob.mx/agricultura/articulos/biodigestores-innovacion-sostenible-para-la-agricultura-y-ganaderia?idiom=es.

58. The government of Yucatán has indicated that it is working to implement comprehensive treatment systems that involve physical, biological and chemical processes and are designed to improve the quality of treated wastewater and comply with the parameters of the NOM-001-SEMARNAT-2021 standard.

59. The ongoing discharge of harmful waste into bodies of water that run into aquifers, especially those within the Anillo de Cenotes, which is registered on the Ramsar List of Wetlands of International Importance, impacts the rights of local communities.[34] Industrial pig farms generate atmospheric emissions of methane through the microbial breakdown of manure and the burning of solid waste. Methane is a pollutant with a short atmospheric lifetime and is much more potent than carbon dioxide. Other issues include the lack of transparency regarding the operations of the industrial pig farms, the deforestation caused by such farms and the criminalization of community leaders to deter them from engaging in activism against the facilities.

60. The Special Rapporteur acknowledges that the closure of the industrial pig farm in Santa María Chi is a positive step. In May 2026, more than 41,000 animals were removed from the facility as part of its permanent closure. After nearly 10 years, the Federal Government is taking action, including by conducting inspections and imposing fines for serious environmental violations. However, the Special Rapporteur is concerned that many other industrial pig farms continue to operate without environmental permits and despite the lack of any prior, free and informed consultation processes conducted with Indigenous Peoples in good faith and in a culturally appropriate manner. There is little clarity regarding the process of temporary closures or about what happens to the pigs transferred from closed industrial farms. There are currently more than 20 *amparo* proceedings that have been filed by the communities.

61. The Special Rapporteur encourages the State to implement, in a coordinated manner, the necessary inter-institutional measures to ensure that Indigenous Peoples can make decisions on the basis of broad and effective participatory processes in which they have access to all available information regarding the environmental and health impacts of these facilities.

62. For years, these communities have had to endure foul odours and noise disturbances day and night, as well as swarms of flies, air pollution and the contamination of wells. They suffer from health problems such as skin complaints and respiratory diseases. Declaring public health and environmental emergencies could enable the allocation of resources for the implementation of a public policy that could rectify the damage and ensure that it does not happen again.

63. The Special Rapporteur considers it imperative that the authorities, at all levels, strengthen oversight and monitoring measures for the farm complexes and bring to an end all mechanisms that discourage freedom of expression and freedom of assembly, threaten efforts to defend nature and criminalize the Maya people. State authorities must redouble their preventive management efforts, focusing in particular on environmental protection and the right to health.

VI. Hazardous pesticides

64. Pesticides have serious effects on children, agricultural workers, women, Indigenous Peoples, beekeeping communities and people living in poverty. The use of certain types of pesticides, such as organochlorines, which are banned in Mexico, organophosphates and carbamates, has caused kidney damage, disruption to the antioxidant and hormonal systems, autoimmune diseases, cell death abnormalities and cancer, and their effects persist across generations. Although there are collection centres throughout the country, the lack of protocols and the limited availability of clear information on the management of empty pesticide containers pose additional challenges.

[34] See https://rsis.ramsar.org/es/ris/2043.

65. The indiscriminate use of dangerous pesticides causes the death of pollinating insects,[35] primarily bees, which are essential for ensuring progress toward sustainable food systems in which food security and people's health are intertwined.

66. Although there are laws governing the use of chemicals in food production and agriculture, there is still no comprehensive pesticides law that addresses the serious risks associated with these toxic substances. There are also no data on the volume of pesticide application, and traceability extends only to the point of distribution, not to the point of application. This is particularly urgent given that pesticides have been detected outside agricultural areas, including on the country's southern coast, in the Gulf of Mexico and in marine species.

67. In 2018, the National Human Rights Commission determined that various authorities in the agricultural, environmental and health regulatory sectors had failed to fulfil their human rights obligations by not banning highly hazardous pesticides and by not preventing pollution and the resulting impacts on health, water and the environment. Although the authorities took steps to reverse the situation, it is concerning that the Commission considers that the Ministry of the Environment and Natural Resources has given effect to its recommendation, despite the continued absence of a sectoral plan with measurable targets for highly hazardous pesticides, many of which have still not been banned more than seven years after the Commission issued its recommendation to do so.[36]

68. The Special Rapporteur acknowledges the State's efforts to implement stricter regulations on glyphosate in 2020 and 2023 and on 35 pesticides in 2025.[37] The Special Rapporteur was informed that when the country of origin of a pesticide does not use the term "prohibited," this creates a legal loophole allowing it to be imported. The Special Rapporteur encourages the State to comply with the Environment Act, which prohibits the importation of highly hazardous pesticides when their use is not permitted in their countries of origin.

69. A robust and updated regulatory framework is essential to ban pesticides where there is evidence of harm to health or to pollinators, such as in the case of fipronil, neonicotinoids, imidacloprid and paraquat, rather than prioritizing pesticides that are obsolete or no longer in use.

70. The Ministry of Agriculture and Rural Development is drafting a new decree that includes a list of 38 pesticides that are expected to be banned in the near future. Together with other institutions, it will continue to review a list of nearly 200 substances to assess whether to ban them or to impose conditions on their sale, by 2030 at the latest. The Government should enact, in consultation with all stakeholders, a comprehensive pesticides law setting out a definition, the relevant criteria and a list of highly hazardous pesticides, accompanied by regulations on application volumes and a registry containing information on the production, sale, application and disposal of the products.

71. The Special Rapporteur highlights the efforts of various authorities, academia and civil society to develop an official Mexican standard on the aerial application of pesticides using light aircraft, drones and other airborne means. This process has been unduly delayed, and it is essential that the authorities take steps to complete it, with the aim of, inter alia, addressing recent challenges such as aerial spraying using drones.[38]

Situation of beekeeping communities in Campeche

72. The Yucatán Peninsula faces significant challenges from the ongoing use of hazardous pesticides. The large-scale deaths of bees documented in the area are caused by the use of substances such as glyphosate, fipronil and neonicotinoids, as well as the practice of

[35] A/HRC/34/48, paras. 96–98.

[36] See Recommendation No. 82/2018 of the National Human Rights Commission, available at https://www.cndh.org.mx/resoluciones.

[37] See https://www.gob.mx/agricultura/prensa/gobierno-de-mexico-prohibe-35-plaguicidas-de-alto-riesgo-para-la-salud-y-el-medio-ambiente.

[38] The NOM-003-STPS-2023 standard sets forth the health and safety conditions and measures for the use of agrochemicals, including aerial application.

monoculture.[39] This situation affects the health of local residents and the livelihoods and culture of beekeeping communities and also gives rise to emotional impacts.

73. Water drawn from traditional wells in several municipalities on the peninsula is no longer safe for human consumption, and communities have had to resort to buying bottled water. However, some studies[40] show that even bottled water contains glyphosate and other pesticides.

74. There is a lack of official data on pesticide-related illnesses, as well as of ongoing monitoring by the Ministry of Health. For this reason, communities have begun to conduct community-based health surveys of people exposed to pesticides. They have detected in particular a marked increase in cancer, miscarriages and attention deficit hyperactivity disorder.

VII. Waste management

75. The Waste Act,[41] which was adopted in 2003 and amended in 2026, establishes the framework for waste management and defines which types of waste are considered hazardous and what constitutes an "environmental liability." In addition, it requires the authorities to establish an information system on the generation and comprehensive management of hazardous waste, municipal solid waste and special waste, as well as on contaminated and remediated sites.

A. Plastics and microplastics

76. The Special Rapporteur acknowledges that plastic pollution continues to pose significant challenges owing to the large amount of waste entering the country, the high concentration of macro- and microplastics in water bodies and the lack of information on chemical additives in plastics. Various studies have detected the presence of such plastics in rivers including the Tecate in Baja California, the Atoyac in Puebla and the Jamapa and the Antigua in Veracruz, as well as in protected areas.

77. The Special Rapporteur was informed of a ruling on an *amparo* petition[42] filed by civil society organizations, in which the legislature's failure to ban single-use plastics was recognized. The Chamber of Deputies must urgently continue its efforts to comply with this ruling and implement a ban on single-use plastics.

B. Traceability, co-processing, recycling and waste incineration

78. The Waste Act authorizes practices such as waste incineration and co-processing. However, there are a significant number of landfills with no effective controls, where municipal, special and hazardous waste are mixed together or not properly sorted. Waste pickers who work at unregulated sites such as landfills are particularly exposed to hazardous chemicals. Generally, they lack social security coverage and are not invited by the authorities to participate in negotiation processes. Large amounts of waste are burned in an irregular manner, exposing people to irreversible health effects, for example in Tehuacán, Puebla, Jiutepec, Morelos, and Hermosillo, Sonora, with children being particularly affected.

79. While waste generation is a problem that affects many sectors of society, legislation and government policy must remain consistent with the polluter pays principle. Although the General Act on the Circular Economy recognizes the principle of extended

[39] An agricultural system that degrades the soil and increases ecosystem vulnerability. See A/HRC/55/37, para. 34.

[40] See Due Process of Law Foundation et al., "La toxificación de la península de Yucatán" (The Poisoning of the Yucatán Peninsula), para. 5.

[41] See https://www.diputados.gob.mx/LeyesBiblio/pdf/LGPGIR.pdf.

[42] See https://sjf2.scjn.gob.mx/detalle/tesis/2030056.

producer responsibility, companies have yet to assume their primary responsibility to prevent, mitigate, monitor and remediate toxic pollution.

80. The Special Rapporteur appreciates the invitation to visit the IQUISA company in Monterrey, where he was able to observe the efforts made by the State, in close collaboration with the company, to address environmental liabilities and comply with the Minamata Convention on Mercury. It is also an example of best practice that recoups the investment in installing circular economy technology, which also reduces wastewater discharge to zero.

VIII. Pollution of rivers and bodies of water

81. The Special Rapporteur learned how the persistent pollution of bodies of water has greatly affected local people living near the Atoyac River in Puebla and Tlaxcala, the Lerma-Santiago and Sonora Rivers in Sonora and the Tula River in Hidalgo, which are heavily polluted with toxic substances discharged mainly by industry. In the Comarca Lagunera area in Durango, due to the extensive mining activities there, significant amounts of arsenic are present which, according to research, has an impact on fetuses.

82. Shortcomings in the monitoring of wastewater discharges exacerbate the situation, as monitoring is often limited to levels of faecal coliform bacteria and does not include measurements of other hazardous substances. Notably, there is no data analysis establishing links between symptoms, diseases, pollutants and specific health effects within the communities living near these bodies of water.

83. The construction of wastewater treatment plants that are not equipped to deal with the high levels of toxic substances in contaminated rivers and streams is not sufficient, since such plants do not prevent environmental damage or contribute to comprehensive remediation. For this reason, many stakeholders informed the Special Rapporteur that they are concerned about what they perceive to be an unsuitable solution. The Mexican Government must implement policies that address this issue, with a focus on preventing pollution and restoring ecosystems.

84. The Special Rapporteur commends the Government of Mexico for recognizing the seriousness of the situation in the Atoyac, Lerma-Santiago and Tula basins by including them in the National Water Programme 2026–2030. As a result, the Government will allocate significant financial resources to clean-up and restoration efforts. The authorities must design and implement these measures in collaboration with the affected communities to ensure comprehensive reparations.

A. Sonora River

85. In August 2014, a massive spill of acid leachate from the Buenavista del Cobre mining facility, owned by Grupo México, affected the Sonora River. More than 10 years on from the environmental disaster, the resulting pollution remains a problem.

86. Pursuant to an administrative agreement,[43] in 2014 the Federal Office for the Protection of the Environment and Grupo México established a trust which was subsequently closed in 2017 on the basis that it had already paid the corresponding reparations. In 2020,[44] the Supreme Court ruled that the residents of the affected community had not been invited to participate in the administrative agreement and ordered consultations to be held with them.

87. Through the Cananea Justice Plan, the federal authorities set up discussion forums with the affected population. However, the Plan has not produced any practical solutions. Furthermore, the authorities have prioritized negotiations with the company, without the full

[43] See https://www.gob.mx/semarnat/documentos/comunicado-sobre-las-acciones-del-gobierno-de-la-republica-en-el-rio-sonora.

[44] See https://www.supremacorte.gob.mx/sites/default/files/casos_relevantes/2020-12/Fideicomiso%20Rio%20Sonora.pdf.

participation of the affected communities.[45] The Special Rapporteur was informed that the National Water Commission had apparently not conducted the necessary water analyses, even though a study by the National Autonomous University of Mexico had confirmed the presence of heavy metals in sediment in the Sonora River. The authorities had reportedly committed to building more than 30 water treatment plants, only 16 of which have been completed.

88. Of particular concern is the lack of healthcare for those affected by the toxins released in the spill, as reflected in the fact that the building intended to house a specialist toxicology clinic was abandoned before construction had been completed. This, combined with the ongoing exposure of the community and of flora and fauna to heavy metals, the lack of transparency and inter-institutional coordination and the ineffective participation of the community and victims in the search for solutions, has created a situation that perpetuates the violation of the rights of the affected communities.

89. The Government must ensure that all commitments made by the parties responsible for violations of environmental legislation are fulfilled and must guarantee full redress for the victims.

B. Atoyac River

90. The situation in the Atoyac basin remains critical due to the high level of pollutants from wastewater discharges from the industrial corridor, where there are around 22,000 industrial facilities, and the inadequate management of municipal solid waste, despite the fact that industrial pollution has been recorded for more than 20 years and that rates of cancer and birth defects have increased and wildlife has declined. Authorities and the private sector place the blame primarily on local communities, accusing them of dumping waste into the river.

91. Although it is encouraging that the Federal Government has appointed a commissioner for the restoration and clean-up of the Atoyac River,[46] the communities report that they are still waiting for stricter controls on industrial waste to be set out in public policies.

92. The Special Rapporteur was informed that 120 water treatment plants built in the Atoyac basin are now abandoned or only partially operational, resulting in high maintenance costs for the municipalities, many of which are unable to cover such costs. There is also no air quality monitoring in the area. The authorities reportedly call on communities to participate in clean-up efforts, which would lead to greater exposure to toxic substances unless adequate protection is provided.

C. Lerma-Santiago River

93. The Lerma-Santiago basin is a vital hydrological system for western Mexico, especially El Salto and Juanacatlán in Jalisco. The basin is particularly affected by industrial wastewater discharges from neighbouring municipalities, changes in land use and the environmental crisis in the area caused by levels of heavy metals, including arsenic, lead, cadmium and mercury, in the river that exceed permissible limits, high concentrations of nitrogen, phosphorus and faecal coliform bacteria and the presence of more than 1,000 toxic substances in the discharges, as acknowledged by the National Human Rights Commission.[47]

[45] See https://comitescuencariosonora.wordpress.com/2025/12/23/gobierno-presenta-propuesta-de-acciones-para-remediacion-y-justicia-en-el-rio-sonora/.

[46] See https://www.gob.mx/presidencia/prensa/mexico-dara-ejemplo-al-mundo-de-como-vamos-a-limpiar-nuestros-rios-presidenta-encabeza-jornada-de-saneamiento-del-rio-atoyac?idiom=en.

[47] See Recommendation No. 134/2022 of the National Human Rights Commission, paras. 103, 106 and 130; available at https://www.cndh.org.mx/sites/default/files/documentos/2022-07/REC_2022_134.pdf.

94. Residents living near the river have exhibited symptoms of gastrointestinal, kidney and liver disorders, neurological conditions and endocrine problems.

IX. Toxic substances

95. The Special Rapporteur was informed of the lack of an accurate, up-to-date inventory of imported toxic substances and their uses, purposes and impact. This heightens the vulnerability of individuals. The authorities noted that they are working on drafting a comprehensive bill on the management of chemicals, although they did not provide a timeline for its completion.

96. The Special Rapporteur was informed by various stakeholders about the cross-cutting impact of these hazardous substances on the right to health and about the health sector's failure to address the problems faced by people exposed to chemicals, who often dismiss their symptoms due to a lack of information. The Ministry of Health must take action in coordination with the various environmental agencies and local authorities. An important step has been the update, for the first time in over 50 years, of the list of occupational diseases for the purposes of occupational health and the determination of disability, although the Special Rapporteur has yet to receive information on its implementation.

97. The situation for fishers in Ohuira Bay, Sinaloa, remains a cause for concern given the plans of Gas y Petroquímica de Occidente to build an ammonia plant in the area. The Special Rapporteur was informed that this would have a significant negative impact on the environment and biodiversity, as well as on the health of the residents, and would directly affect thousands of people for whom fishing is the sole livelihood.

A. Asbestos

98. While asbestos is no longer produced in Mexico, there is still no law banning its use, despite a bill being before the Chamber of Deputies.[48] Only certain asbestos compounds are banned, and these do not include some hazardous compounds, such as chrysotile. Although friable asbestos is considered hazardous waste, there are no adequate guidelines for its management.

99. The Special Rapporteur was informed of the persistence of diseases, such as malignant pleural mesothelioma and lung cancer, caused by the activities of over 1,000 companies that handled this material, particularly those concentrated near urban settlements in the States of Chihuahua, Nuevo León and Mexico. This has had adverse effects on residents and industry workers, whose illnesses are not covered by social security because they were diagnosed years after the end of their employment and because of the lack of monitoring of the at-risk population.

B. Perfluoroalkyl and polyfluoroalkyl substances (PFAS), also known as forever chemicals

100. Although Mexico has made various commitments regarding perfluoroalkyl and polyfluoroalkyl substances, Mexican law does not specifically regulate them. The Special Rapporteur was informed of legislative initiatives to ban their use in cosmetics,[49] although there are no up-to-date public data. The authorities should research their presence in products and the environment, assess the quantity and type of compounds and work towards their regulation, in line with relevant international standards.

[48] See https://www.partidoverde.org.mx/prensa/diputados/boletines/23707-pide-partido-verde-prohibir-uso-de-asbesto-por-ser-material-altamente-cancerigeno-y-contaminante%20y.

[49] See http://sil.gobernacion.gob.mx/Archivos/Documentos/2026/02/asun_5013269_20260211_1770823560.pdf.

C. Lead

101. The Special Rapporteur received concerning information about lead exposure, including the case of children in Coahuila, resulting from the activities of a company linked to the Met-Mex Peñoles metallurgical complex. More than 3,000 children are believed to have blood lead levels above permissible limits. Although the private sector has funded some healthcare initiatives, challenges remain in remediating the sites and ensuring the population's health.

102. Toxic exposure resulting from the recycling of lead-acid batteries has increased in recent years, putting people at risk of serious effects. The Special Rapporteur was informed that a large number of workers have elevated blood lead levels and that the four laboratories in the National Network of Occupational and Environmental Health Laboratories[50] that conduct testing and analysis are overwhelmed. The Special Rapporteur wishes to draw attention to the effects of lead on children, which deprive them of their right to development and undermine their prospects for comprehensive health and a fulfilling life.

X. Conclusions

103. The Special Rapporteur acknowledges that Mexico has made extensive commitments, under international human rights law, to guarantee a healthy, clean and toxin-free environment. It is important that this leadership continue and translate into more effective actions internally. This must take place at the municipal, state and federal government levels, in coordination with all relevant authorities, through public policies aimed at implementing international and regional commitments.

104. Mexico has made progress by adopting laws, programmes and best practices to address the challenges posed by toxic substances. At the same time, industrial activities have led to environmental damage, high levels of pollution and exposure for workers and communities, who bear the direct and disproportionate brunt. The Government of Mexico having committed to combating inequality, it is important that the measures it takes to that end also address the inequalities caused by exposure to toxic substances and hazardous waste.

105. The Government should urgently address the situation in sacrifice zones, river pollution and the impacts of animal processing plants. The lack of urgent attention for the population of these areas is not only affecting the present but also jeopardizing the future of the next generations. The health sector has an essential role to play in the development of public policies and programmes aimed at providing comprehensive care to victims of pollution. Communities in various regions of the country expressed to the Special Rapporteur that their right to life must be respected.

106. There is no acquired right to pollute exempting companies from their obligation to comply with environmental regulations. The right to a clean, healthy and sustainable environment requires urgent changes to unsustainable patterns of production and consumption. The Government should apply the principles of prevention, precaution and polluter pays to the management of toxic substances and waste. Otherwise, the result is the legalized poisoning of people and a violation of their fundamental human rights.

107. The Government must act as a guarantor for its citizens so that they may have access to justice and comprehensive redress in cases of environmental pollution. Although there has been progress, Mexico must redouble its efforts to provide effective and sustainable solutions for victims.

[50] See https://www.gob.mx/imss/prensa/pone-en-marcha-imss-red-nacional-de-los-laboratorios-de-salud-en-el-trabajo-y-ambiental.

XI. Recommendations

108. **The Special Rapporteur makes the following recommendations to the Government of Mexico.**

109. **With regard to environmental governance, the Special Rapporteur recommends that it:**

(a) **Continue implementing the Escazú Agreement through a robust road map, joining forces to strengthen inter-institutional coordination;**

(b) **Continue providing leadership and pursue efforts to implement the provisions of the Stockholm, Rotterdam, Basel and Minamata Conventions at the federal, federative entity and municipal levels;**

(c) **Support initiatives of the International Labour Organization (ILO) in revising its regulatory framework on the sound management of chemicals in the workplace[51] (ILO Chemicals Convention, 1990 (No. 170)), and move forward on signing and ratifying the ILO Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187);**

(d) **Take strong measures to ensure access to and proactive disclosure of information by:**

(i) **Strengthening the Environmental Information System, particularly the Pollutant Release and Transfer Register and the National Inventory of Contaminated Sites, so that the information they contain duly informs the public about potential health risks and effects in polluted areas, particularly those that might affect vulnerable communities and Indigenous Peoples;**

(ii) **Ensuring the technical, budgetary and operational autonomy of the authorities responsible for promoting transparency and providing information on environmental matters;**

(e) **Ensure access to justice and effective remedies for affected communities and victims through measures to:**

(i) **Promote the application of legal concepts, such as broad standing, the shifting burden of proof, flexible statutes of limitations and the exemption of victims from the burden of proving a causal link between harm or risk and exposure in cases where there is evidence of exposure to toxic substances;**

(ii) **Promote the professionalization, independence and impartiality of federal and state justice officials, so that they are free from corporate influence and the influence of the executive and legislative branches and take into account the differing impact of pollution on vulnerable groups;**

(f) **Ensure that public consultation and participation processes are effective by guaranteeing access to information and participation;**

(g) **Ensure respect for the right of Indigenous Peoples to free, prior and informed consent, obtained in a culturally appropriate manner, regarding projects and other activities that may affect them;**

(h) **Take steps to strengthen laws and institutions, including by:**

(i) **Allocating adequate budgetary funds to the authorities responsible for enforcing and monitoring compliance with environmental regulations;**

(ii) **Applying regulations on environmental impact assessments, taking into account cumulative, synergistic and residual impacts;**

(iii) **Ensuring the inclusion of additional mechanisms to enforce the extended producer responsibility provided for in the General Act on the Circular**

[51] See https://www.ilo.org/sites/default/files/2026-01/ILC115-IV%281%29-%5BGOVERNANCE-251002-001%5D-Web-SP.pdf.

Economy, in consultation with stakeholders, such as compensation funds, collective management systems and traceability registries;

(iv) **Developing training programmes for environmental officers working on labour and health issues and for justice system personnel, addressing mechanisms for assisting persons affected by toxic substances and hazardous waste, as well as relevant international standards;**

(v) **Rolling out accessible educational and awareness programmes to inform the population of the harmful effects of toxic substances and hazardous waste.**

110. **With regard to sacrifice zones, the Special Rapporteur recommends that it:**

(a) **Develop epidemiological surveillance mechanisms in sacrifice zones and areas of chronic exposure to toxic substances, with appropriate, coordinated intervention by health and environmental authorities and comprehensive care protocols that take into account the differentiated impact of pollution;**

(b) **Ensure, through administrative and legislative measures and public policies, access to justice and comprehensive redress for the inhabitants of the Mezquital Valley, taking into account their chronic exposure to toxic substances;**

(c) **Adopt a comprehensive national plan, coordinated between the federal government and the states, to remediate and repair environmental harm resulting from hydrocarbon-related activities, including fracking, and provide medical care to affected communities, with special attention to children living near oil refineries in the States of Tabasco, Hidalgo, Guanajuato, Veracruz, Oaxaca and Nuevo León;**

(d) **Consult with the Indigenous Peoples of the Huasteca Potosina region regarding hydrocarbon extraction from unconventional reservoirs as part of the Pemex 2025–2035 strategic plan;**

(e) **Ensure that planned liquefied natural gas projects in the Gulf of California are subject to comprehensive environmental impact assessments and that communities are duly informed of the findings.**

111. **With regard to hazardous chemicals and waste, the Special Rapporteur recommends that it:**

(a) **Enact a comprehensive law on chemicals, with a human rights perspective, that addresses accountability mechanisms, access to justice and redress;**

(b) **Adopt a national plan to offset the harmful presence of plastics and microplastics in bodies of water, living organisms, consumer products and cosmetics;**

(c) **Establish effective monitoring of the cross-border movement of plastic waste from other countries into Mexico, including traceability from the point of origin through to distribution;**

(d) **Develop monitoring mechanisms that take into account the effects of toxic substances on the population and strengthen their traceability, accountability for harm to health and coordination with the relevant public policies;**

(e) **Design a programme to ensure the transition of artisanal cinnabar miners to alternative occupations, in consultation with them and their families, providing them with comprehensive healthcare services and disease tracing.**

112. **With regard to industrial animal farms, the Special Rapporteur recommends that it:**

(a) **Strengthen coordinated efforts among federal and state agencies to reinforce environmental controls on industrial pig farms, particularly as relates to the treatment of the waste contaminating the Maya Aquifer;**

(b) **Develop, in consultation with the population of Yucatán State, particularly the Maya people and those affected by industrial animal farms, a culturally appropriate socio-environmental justice plan, including diagnostic, preventive and**

mitigation actions, comprehensive reparation measures and appropriate healthcare services, including disease surveillance.

113. **With regard to hazardous pesticides, the Special Rapporteur recommends that it:**

(a) **Enact a comprehensive pesticide law that contains a definition, criteria and a list of pesticides, as well as a total ban on highly hazardous pesticides prohibited in their countries of origin, and provides for inter-institutional coordination and comprehensive redress mechanisms for victims of pesticide use;**

(b) **Include in the decrees currently being drafted all pesticides that have serious impacts on human and environmental health, not only those that are obsolete or rarely used today;**

(c) **Prohibit spraying with aeroplanes and drones and adopt measures to ensure the environmentally sound management and disposal of pesticide containers and banned or obsolete pesticides.**

114. **With regard to the pollution of rivers and bodies of water, the Special Rapporteur recommends that it:**

(a) **Achieve the goal of "zero discharge" of toxic pollutants from industrial processes into bodies of water, including by promoting technologies that treat and reuse water before discharge;**

(b) **Adopt a comprehensive, coordinated national plan at the federal, state and municipal levels to restore polluted bodies of water, including urgent action to clean up the Sonora, Atoyac and Lerma-Santiago Rivers.**

115. **The Special Rapporteur recommends that businesses:**

(a) **Avoid greenwashing practices;**

(b) **Conduct due diligence to identify potential impacts on human rights, and take steps to prevent, mitigate or offset those impacts and, where appropriate, to provide redress;**

(c) **Avoid exerting harmful pressure on academia and the media by refraining from directly or indirectly funding campaigns against environmental defenders.**

116. **The Special Rapporteur recommends that United Nations bodies and the international community:**

(a) **Continue providing technical support to Mexico so that it can effectively implement the Stockholm, Rotterdam, Basel and Minamata Conventions, the Escazú Agreement and the Sustainable Development Goals within the framework of the 2030 Agenda for Sustainable Development;**

(b) **Provide technical support to Mexico for the development and revision of robust, interconnected regulatory frameworks and public policies, with a human rights perspective and an emphasis on toxic substances and hazardous waste, particularly with regard to the transboundary movement of plastic waste;**

(c) **Promote sustainable initiatives, such as agroecology, with a focus on initiatives aimed at a just transition, including sustainable consumption models and paradigms, in which the issue of waste is addressed from a human rights perspective.**