IUCN Resolutions on pollution

Overview

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IUCN is a membership Union uniquely composed of both government and civil society organisations. It provides public, private and nongovernmental organisations with the knowledge and tools that enable human progress, economic development and nature conservation to take place together. Created in 1948, IUCN is now the world's largest and most diverse environmental network, harnessing the knowledge, resources and reach of more than 1,400 Member organisations and some 17,000 experts. It is a leading provider of conservation data, assessments and analysis. Its broad membership enables IUCN to fill the role of incubator and trusted repository of best practices, tools and international standards. IUCN provides a neutral space in which diverse stakeholders including governments, NGOs, scientists, businesses, local communities, Indigenous Peoples' Organisations and others can work together to forge and implement solutions to environmental challenges and achieve sustainable development. Working with many partners and supporters, IUCN implements a large and diverse portfolio of conservation projects worldwide. Combining the latest science with the traditional knowledge of local communities, these projects work to reverse habitat loss, restore ecosystems and improve people's wellbeing.

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Executive summary

Since its establishment in 1948, the International Union for Conservation of Nature (IUCN) has adopted over 1,400 Resolutions and Recommendations (hereafter “Resolutions”), including 81 that specifically address pollution. These Resolutions offer guidance on a broad range of conservation issues and highlight IUCN’s role as a platform for shaping conservation policy and priorities. Pollution is acknowledged as a factor impacting biodiversity, ecosystems, and human health.

The **IUCN World Conservation Congress 2025 in Abu Dhabi** will take place against the backdrop of increasing international attention to pollution. Recent developments include the Kunming-Montreal Global Biodiversity Framework (GBF), the Global Framework on Chemicals, the establishment of a new Science-Policy Panel on Chemicals, Waste and Pollution, and negotiations under the Intergovernmental Negotiating Committee (INC) to develop a legally binding instrument on plastic pollution.

This document provides an overview of IUCN’s Resolutions and policy positions relating to pollution, organized in four main areas:

- **Marine pollution**: Oil spills, plastic debris, underwater noise, ship discharges, radioactive waste, and chemicals harmful to coral reefs.
- **Water, land, soil, and forest pollution**: Extractive industries, hydraulic fracturing, river governance, waste trade, plastics in protected areas, pesticides, agriculture, sand extraction, and artificial light.
- **Air pollution**: Acid rain, ozone depletion, energy systems, climate–pollution linkages, and dust storms.
- **Plastic pollution (case study)**: IUCN’s engagement in the Intergovernmental Negotiating Committee on Plastic Pollution, with a focus on biodiversity integration, circular economy approaches, and addressing the plastics lifecycle.

The overview is intended to support discussion of how IUCN Resolutions relate to ongoing international processes on chemicals, waste and pollution, and how future governance outcomes may intersect with biodiversity and conservation priorities.

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Introduction – Background and Context

As the world's leading union of conservation organizations, with over 1,450 Members from over 160 countries, including 87 States, 110 government agencies, 25 sub-national governments, 1149 non-governmental organisations and 31 indigenous peoples' organisations (as of April 2025), IUCN is in a unique position to reflect and promote the priorities of the global conservation community.

To fulfil the IUCN mission to "*influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable*," since 1948, Members have convened every two to four years to debate and agree on major policy issues and adopt mechanisms to act upon them, as well as to approve the organisation's programme and budget. IUCN held 19 General Assemblies between 1948 and 1994 and has held 7 World Conservation Congresses since 1996. Initially, the Congress only consisted of the Members' Assembly of all IUCN member organizations. Since 1996, the Congress has expanded to include a Forum open to all, to debate major sustainable development issues, propose solutions and facilitate the sharing of information and experiences. The world stands at a critical juncture after decades of conservation efforts: the path we are on is still unsustainable. Climate change, biodiversity loss, pollution, and global health crises are all being compounded by growing global political and socio-economic instability. The next IUCN World Conservation Congress will take place from 9 to 15 October 2025 in Abu Dhabi, United Arab Emirates. The 2025 Congress will tackle critical themes, including on pollution, each driving the bold, transformative change needed to secure a sustainable future for both nature and humanity.

The Resolutions and Recommendations[1] that the IUCN's membership adopts are fundamental to its ability to have global impact and fulfil the terms of its organisational mandate. In its 76 years of existence, IUCN has issued a total of 1466 Resolutions. These policies are developed through a unique, open consultative process that involves the full IUCN membership, with inputs from IUCN's Commissions. Resolutions constitute the means through which IUCN Members set the organization's general policy, influence conservation priorities, and secure support for bringing commitments into action.

Pollution remains one of the most pressing challenges for nature conservation and human health. IUCN has actively contributed to addressing pollution through 81 Resolutions, 47

[1] IUCN Congress "Resolutions" are aimed at IUCN itself, and "Recommendations" are directed to third parties. For ease, these will both be called "Resolutions" throughout this paper.

of which are still considered active (i.e. they contain actions to be implemented), and 34 have been archived. [2] They reflect the interconnections between various forms of pollution and conservation efforts, as well as the need to address the threats posed by pollution, particularly in the context of nature and biodiversity conservation, and the people who depend on them. These Resolutions demonstrate the unique ability of the Union to bring together scientific, legal and policy knowledge and expertise to craft measures identifying the complex relationship between pollution and conservation. As the realities of pollution and its impacts evolve and more nuanced scientific knowledge becomes available, it is important that IUCN Resolutions continue to stand at the forefront of integrating science, law and policy to adapt to new emerging challenges such as pollution and ensure the ongoing viability of conservation.

A critical example of this is found in the context of chemicals and wastes[3]. Chemicals contribute massively to the world economies. However, chemicals, waste and pollution are interrelated, and their sound management is key to limiting their negative impacts on ecosystems and human health, which disproportionally affect the most vulnerable countries and populations, including indigenous peoples, women, youth and local communities. To this end, as established in multilateral environmental agreements (MEAs), such as the Basel Convention, the Rotterdam Convention and the Stockholm Convention, the Minamata Convention on Mercury and the Montreal Protocol on Substances that Deplete the Ozone Layer, with which IUCN has actively engaged, pollution should be addressed throughout the entire life cycle of the products from which it results. Thus, sustainable consumption and production efforts require a holistic response to halting pollution and implementing Sustainable Development Goal 12, considering just transitions and circular economy approaches, that are nature positive and aim to tackle the triple planetary crisis.

Concomitantly, there is increasing recognition of pollution as a critical issue and growing requests from the biodiversity and nature conservation community for action to tackle pollution, as evidenced by the adoption of international biodiversity goals and targets. Key among these are Target 7 of the 2022 Kunming-Montreal Global Biodiversity Framework (GBF) under the Convention on Biological Diversity (CBD), the 2023 High Seas / Biodiversity Beyond National Jurisdiction (BBNJ) Treaty and the 1971 Ramsar Convention on Wetlands.

Further, several Resolutions adopted by the United Nations Environment Assembly (UNEA) at its resumed fifth session in 2022 (UNEA-5.2) reflect widely held concerns about the impact of pollution on human health and the environment. In particular:

UNEA Resolution 5/12 on *environmental aspects of minerals and metals management* (2022),[4] directly connecting aspects of SDG 12,

[2] Resolutions are archived when they meet one of the four following criteria: 1) implemented, 2) superseded, 3) elapsed, 4) obsolete. The definitions of these terms are included in the Annex of Resolution 7.001 *"Archiving Resolutions and Recommendations meeting retirement criteria, consolidating policy and future reviews"* (2020).

[3] See UNEP with further references: Why does chemicals and pollution action matter? | UNEP - UN Environment Programme.

[4] UNEP/EA.5/Res.12

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UNEA established the groundwork for cooperation with intergovernmental and other actors to assess the current and future environmental impacts and effects of minerals and metals practices.

UNEA Resolution 5/8 *"Science-policy panel to contribute further to the sound management of chemicals and waste and to prevent pollution"* (2022)[5] decided that, in addition to the IPCC and IPBES, a *new science-policy panel on chemicals, waste and pollution prevention should be established* as a distinct body. The intent of this decision is to ensure that the third prong of the triple planetary crisis – pollution – is also given a commensurately focused body to provide science-based information and expertise.

UNEA Resolution 5/14 entitled *"End plastic pollution: Towards an international legally binding instrument"* (2022)[6] mandates the *development of an international legally binding instrument on plastic pollution* (so-called ILBI), including in the marine environment. Both UNEA Resolutions contained the ambition of completing their mandates and delivering agreements to address the science-policy nexus in pollution and tackle plastic pollution by the end of 2024 and having the formal conferences to adopt these instruments in 2025.

Although these negotiation processes have been held over 2025, the ambition driving these UNEA-Resolutions is still very much present. In that sense, the establishment of the new "Science-Policy Panel on Chemicals, Waste and Pollution" was recently decided at the Resumed Third Session of the Ad Hoc Open-ended Working Group (OEWG 3.2) on a Science-Policy Panel to Contribute Further to the Sound Management of Chemicals and Waste and to Prevent Pollution and the subsequent Intergovernmental Meeting on 20 June 2025, at Punta del Este, Uruguay. Further, the second part of the fifth session of the Intergovernmental Negotiating Committee to develop an international legally binding instrument on plastic pollution, including in the marine environment (INC 5.2.), took place from 5 to 14 August 2025 in Geneva, Switzerland, and adjourned early on 15 August without consensus on a text of the instrument. The Committee agreed to resume negotiations at a future date to be announced.

The common objective of protecting human health, biodiversity, climate and the environment from hazardous chemicals and waste was also addressed by the adoption of the "Global Framework on Chemicals – For a Planet Free of Harm from Chemicals and Waste" and the "Bonn Declaration – for a Planet Free of Harm from Chemicals and Waste," on 30 September 2023, at the Fifth session of the International Conference for Chemicals Management (ICCM5). This outcome was the result of over 16 years of negotiations and multiple rounds of discussions and highlighted the willingness of the international community to find points of consensus on issues relating to pollution, chemicals and waste.

The Ministerial Declaration of the United Nations Environment Assembly at its sixth session[7]

[5] UNEP/EA.5/Res.8

[6] UNEP/EA.5/Res.14

[7] UNEP/EA.6/HLS.1

(UNEA-6) in February 2024, entitled *"Effective, inclusive and sustainable multilateral actions to tackle climate change, biodiversity loss and pollution,"* included explicit references to pollution as well as to water, land and soil degradation, which are often linked to pollution, chemicals and waste management issues[8]. This Declaration also saw States expressly commit to *"[d]eploy efforts to enhance the environmentally sustainable management of minerals and metals, including for a just and sustainable energy transition"* [9] and to *"[e]nhance efforts and broader cooperation to address pollution, including by reducing atmospheric and water pollution, recognizing that pollution is a leading environmental risk factor for human health and that it has a negative impact on ecosystems and climate change, transcends national borders, and affects regions in different ways"* [10]. It also sees States committing to integrating disaster and risk reduction measures with efforts to address climate change, biodiversity and pollution, while also ensuring the inclusion of Indigenous peoples and women and girls in responses generated to address these challenges[11].

At UNEA6, one of the critical areas of focus was the concept of ensuring collaboration and synergy generation between multilateral environmental agreements (MEAs) with areas of shared or overlapping interests[12]. This could be an area where MEA secretariats, Member States, and stakeholders all would have roles to play. This is supplemented by the provisions of UNEA Resolution 6/9 on the Sound management of chemicals and waste[13], which encourage coordination between the applicable MEAs and their secretariats in order to avoid duplication of work[14].

Furthermore, UNEA Resolution 6/5 on *environmental aspects of minerals and metals* (2024)[15] calls on UNEP, Member States and other stakeholders, among other measures, to "[s]upport enhanced cooperation among Member States to strengthen the policy, technological, technical and scientific elements of the management of environmental aspects of minerals and metals"[16]. This builds on UNEA Resolution 5/12 on environmental aspects of minerals and metals management and the Mining and Metals consultations held by UNEP in 2023, in which IUCN and IUCN WCEL were active and welcomed as participants. From a forward-looking perspective, UNEA Resolution 6/9 "*requests* the Executive Director to prepare a report, subject to the availability of resources, building on existing measures and initiatives to address lead, cadmium, arsenic and organotins, and to continue the work of the United Nations Environment Programme in supporting Member States in their actions"[17]. Additional measures from UNEA6 included an emphasis on the need for Member States to ensure the removal and reduction of highly hazardous pesticides, along

[8] Para 1

[9] Para 12(e)

[10] Para 12(g)

[11] See Para 12 generally

[12] UNEA Res 6/4 on Promoting synergies, cooperation or collaboration for national implementation of multilateral environmental agreements and other relevant environmental instruments.

[13] UNEP/EA.6/Res.9

[14] UNEA Res 6/9 on Sound management of chemicals and waste, para 5

[15] UNEP/EA.6/Res.5

[16] UNEA Res 6/5 on Environmental aspects of minerals and metals, para 2(c)

[17] UNEA Res 6/9 on Sound management of chemicals and waste, para 8

with measures to assist in the practical transition from the use of these substances to less hazardous alternatives[18].

Set against this general context and international legal and regulatory background relating to pollution, this document provides an overview of the provisions contained in IUCN Resolutions that guide the Union's engagement in international processes that tackle the causes and impacts of pollution. It also helps identify important policy gaps that could be addressed in the future through the IUCN governance process. Furthermore, the document features a short case study regarding IUCN's engagement in the Intergovernmental Negotiating Committee (INC) on Plastic Pollution to illustrate the way in which IUCN Resolutions have guided IUCN's policy influencing work. Finally, this document provides a set of potential gaps in IUCN's general policy on pollution, which could be updated after 2025 Congress and as a new IUCN policy on pollution is adopted.

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[18] UNEA Res 6/11 on Highly hazardous pesticides (UNEP/EA.6/Res.11)

1. Marine pollution

Marine pollution, from oil spills to plastic debris, is a significant threat to marine ecosystems worldwide. IUCN Members have consistently addressed various types of marine pollution through the adoption of Resolutions that call for a range of policy actions to safeguard biodiversity and protect ecosystems.

Oil pollution has been a recurring topic of discussion within IUCN due to the significant impacts that oil spills can have on the marine and coastal ecosystems. Resolutions 19.47 *"Marine Pollution"* (1994) and 2.91 *"Ocean pollution by oil"* (2000) have put forth a series of recommendations aimed at mitigating these adverse effects. For instance, they requested that the Member States of the International Marine Organisation (IMO) reinforce preventive measures and accelerate the implementation of the International Convention for the Prevention of Pollution from Ships (MARPOL). Furthermore, States were also asked to ensure that their vessels comply with international conventions and recommendations designed to reduce accidental spillage at sea, and to exclude ecologically sensitive coastal and marine areas from their maritime routes. Finally, these Resolutions also suggest, in all cases of marine pollution by petroleum products, indemnifying natural environments in the same way as individuals and property.

Recognizing that **underwater noise pollution** can disrupt vital life functions of many marine species, IUCN has supported diverse actions taken by the international community to tackle this issue. These include the CMS Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities, the IMO Guidelines for the Reduction of Underwater Noise from Commercial Shipping to Address Adverse Impacts on Marine Life (2014), and the UNGA Resolution 71/3122 *"Our ocean, our future: call for action"* (2017)[19]. Further, it has encouraged the inclusion of underwater noise pollution within the High Seas / Biodiversity Beyond National Jurisdiction (BBNJ) Treaty, as well as in the strategies and action plans of the UNEP Regional Sea Agreements (Resolution 3.068 *"Undersea noise pollution"* (2004), Resolution 5.081 *"Addressing ocean noise pollution in Africa"* (2012)). Finally, it asked States to implement measures in Marine Protected Areas (MPAs) to reduce this type of pollution (Resolution 7.113 *"Restoring a peaceful and quiet ocean"* (2020)).

IUCN policy also includes reflections on **other types of pollution caused by ships**. Resolution 7.028 *"Updating of the legislation to stop the pollution of oceans caused by the discharging of wastewater by ships"* (2020) urges Member States to update Annex IV of the MARPOL Convention and introduce provisions on the keeping of records and measures aimed at confirming the proper functioning of wastewater treatment plants, to stop the pollution of oceans caused by the discharging of **wastewater** by ships. Expressing concerns about the emerging impacts on Antarctic ecosystems, Resolution 5.066 *"Antarctica and the Southern Ocean"* (2012) supports IMO's efforts to develop a legally binding and mandatory Polar Code, which addresses, *inter alia*, the regulation of **ballast and grey water** discharges, the dumping of **food wastes and sewage**, **air emissions,** and in particular black carbon emissions, in the polar regions[20].

On **marine debris, including plastic pollution**, IUCN Members have put forward various protective and preventive measures. For instance, Resolution 5.136 *"Effective strategy and actions to address the worsening problem of petrochemical plastic and other solid wastes"* (2012) recommends that governments implement laws to minimize the use of plastic and to ensure shared responsibility throughout the life cycle of products. It also suggests that States should address the problems of production, consumption, unsustainable disposal and management of solid wastes.

[19] A/RES/71/312

[20] Five years after the adoption of this Resolution, the Polar Code entered into force on 1 January 2017. However, not all the recommendations made in the IUCN Resolutions were included in it.

IUCN has also adopted Resolutions on **other types of marine pollution**. [Resolution 3.069](#) *"Status of floating atomic power stations in the world's oceans"* (2004) expresses concern over the construction of floating atomic power stations, as they would represent a powerful source of **radioactive and thermal discharges** into the surrounding environment, while [Resolution 7.058](#) *"Safeguarding coral reefs from harmful chemicals in sunscreen"* (2020) requests Members to adopt legislation to protect coral reefs from **harmful chemicals found in sunscreen.**

In [Resolution 7.122](#) "*Protection of deep-ocean ecosystems and biodiversity through a moratorium on seabed mining"* (2020), IUCN calls for a moratorium on **deep seabed mining** unless and until a number of specific environmental conditions[21] are met, recognizing the potential long-term harm such activities could cause to marine ecosystems.

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[21] See the full text of the Resolution for the conditions to be met.

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2. Water, land, soil and forest pollution

IUCN Resolutions have consistently highlighted the significant impacts of extractive industries on water and land, along with recommendations to mitigate these harms. These efforts emphasize the need for sustainable management practices, the reduction of pollution, and the adoption of precautionary measures to protect ecosystems.

Several IUCN Resolutions address the detrimental effects of **extractive industries** on water and land ecosystems, particularly those associated with mining and hydraulic fracturing. Resolution 7.121 *"Reducing the impacts of the mining industry on biodiversity"* (2020) calls for the reduction in the consumption of primary resources, and the prioritisation of resource recovery, reuse and recycling of minerals as alternative sources of supply. It also urged States to apply the precautionary approach to the management of risks to terrestrial freshwater ecosystems and the water column during the exploration, extraction and processing phases of mining. Concerns over pollution of the air, soils, surface and groundwater stemming from **hydraulic fracturing** have also led the Union to call for the prohibition of this method, unless certain measures to protect human health and the environment are first enacte[22] (Resolution 5.090 *"Exploration and exploitation of unconventional fossil fuels"* (2012)).

Additionally, Resolution 7.008 *"Protecting rivers and their associated ecosystems as corridors in a changing climate"* (2020) emphasizes the importance of maintaining the connectivity of river systems to support freshwater species and ecosystems. It encourages the inclusion of river protection and connectivity within the Post-2020 Global Biodiversity Framework and the monitoring of Sustainable Development Goal Target 6.6. The Resolution also calls on governments to restore rivers or stretches and their associated ecosystems where feasible, and to promote cooperative management among governments to strengthen transboundary river governance.

IUCN Members have also addressed the pollution of important sources of water, with particular focus on the regional challenges facing rivers and basins that are vital for biodiversity and human communities, such as the **Mekong River** (Recommendation 3.110 *"Promoting responsible management of water resources in the Mekong Region"* (2004), and the **Rio de la Plata Basin** (Resolution 5.070 *"Río de la Plata Basin wetlands regional initiative"* (2012), as well as other water resources of South America (Resolution 5.102 *"Human rights and access to natural resources in Latin America"* (2012). They have recommended enhanced dialogue and cooperation to adopt an ecosystem-based approach to the management of water resources.

IUCN's policy extends beyond addressing **waste and plastics** in the marine environment and encompasses recommendations for other ecosystems. The Union continues to advocate for the reduction of plastic waste and its harmful effects on ecosystems.

Resolution 7.069 *"Eliminate plastic pollution in protected areas, with priority action on single-use plastic products"* (2020) addresses the issue of plastic pollution in **protected areas,** urging State Members to take priority action by 2025 to prevent pollution of these areas by single-use plastic products, with the ultimate goal of eliminating all plastic pollution. Recognizing the increase in exports of toxic post-consumer waste (e.g. electronic waste) to developing countries, the Union also supports the "Ban Amendment" to the Basel Convention, which bans hazardous waste exports from OECD/EU countries and Liechtenstein to all other countries (Recommendation 3.088 *"Support for the 'Ban Amendment' to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal"* (2004). Recommendation 17.19 *"Wastes"* (1988) underlines the fact that the economic costs of wastes are disguised in current accounting practices and calls for measures to ensure that all costs and benefits from waste production, dispersal and ensuing pollution are fully

[22] See the full text of the Resolution to learn about these measures.

quantified and integrated into public accounting systems, with the polluter-pays principle applied.

The Union has also adopted policies on **chemical pollution**. Resolution 17.20 *"Transfer of Technology Related to Contaminating Products, Including Pesticides"* (1988) calls on governments to enact legislation to control the import and the export of **contaminating products**, and urges that further research be conducted on alternative, non-chemical and integrated pest control methods. It also advocates for the development of strict regulation on use, control, marketing, export and production of pesticides. Related to **agriculture and pesticides**, Resolutions 1.63 *"The Promotion of Organic Agriculture"* (1996) and 7.066 *"Generalising alternative practices and techniques to the use of synthetic pesticides"* (2020) support organic agriculture, as it eliminates chemo-synthetical inputs, minimizes pollution, and reduces soil degradation.

In addition to the direct pollutants affecting ecosystems, IUCN has highlighted the need for sustainable management of natural resources, such as sand, which is critical for biodiversity but increasingly threatened by overexploitation. In Marseille, IUCN adopted Recommendation 029 *"For the urgent global management of marine and coastal **sand resources**"* (2020). This Recommendation emphasizes the vital place of sand in local, regional and international ecosystems necessary for sustaining multiple forms of biodiversity, while also highlighting the threats to this resource from overexploitation due to its widespread use across industries such as construction and agriculture. It suggests that States implement measures to ensure the sustainable use of sand resources and incorporate evaluations related to sand in environmental impact assessments, specifically addressing both biodiversity and erosion impacts.

Artificial light pollution, which disrupts the natural behaviour of wildlife and the functioning of ecosystems, has also been a concern for IUCN Members. Artificial light at night affects many biological groups and can affect the functioning of ecosystems and the services that they provide to human societies. To tackle this issue, the IUCN Membership has adopted two policies, Resolution 7.124 *"Taking action to reduce light pollution"* (2020) and Recommendation 5.183 *"Dark skies and nature conservation"* (2012), which call on Members to raise awareness of the harmful impacts of light pollution and the benefits of preserving natural darkness and recommend that authorities remove unnecessary light points and adapt the remaining lighting systems to reduce negative impacts on ecosystems.

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3. Air pollution

IUCN has long recognized the severe impacts of air pollution on both ecosystems and human health. The Union has adopted several Resolutions aimed at reducing air pollutants and addressing the broader implications of air pollution on natural and human systems.

Aware of the linkages between acid precipitation and the degradation of aquatic and soil ecosystems, IUCN has addressed the harmful effects of **sulphur dioxide pollution** in several Resolutions, including Resolution 16/4 *"Atmospheric Pollution"* (1984). This resolution urges States to reduce the emissions **of pollutants in the atmosphere** and stresses the need for global reductions in sulphur dioxide emissions to mitigate acid precipitation's impact on aquatic ecosystems, soil health, and biodiversity. The Resolution calls on non-party States to the Convention on Long Range Transboundary Air Pollution (CLRTAP) to adopt reduction objectives similar to those set by the Contracting Parties.

The depletion of the ozone layer, driven by harmful chemicals such as chlorofluorocarbons (CFCs), remains a critical environmental issue. In Resolution 17.18 *"Depletion of Ozone"* (1988), the Union advocates for the reduction of chemicals that deplete the ozone layer, and urges all countries to intensify efforts to fulfil international commitments aimed at protecting the ozone layer and curbing the release of these harmful chemicals. international commitments aimed at protecting the ozone layer and curbing the release of these harmful chemicals.

The issue of **energy** production and its link to air pollution have been a key focus for IUCN. The Union recognizes that many of the forms of energy production contribute to air pollution and affect human health, as highlighted in various IUCN Resolutions (e.g. Resolution 5.087 *"Energy and conservation"* (2012)). In Resolutions 4.081 *"Equitable access to energy"* (2008) and 3.086 *"Coordination of sustainable development programmes for energy"* (2004), the Union calls for the development of ecologically sustainable energy systems that minimize air pollution and promote cleaner alternatives. These resolutions emphasize that the current energy mix significantly contributes to biodiversity loss, pollution of air and water, and is the primary driver of climate change, which threatens the future of the Earth's environment. They stress the urgent need for a transition to renewable energy sources and technologies that reduce emissions, thereby safeguarding both human health and the environment.

IUCN's policy framework recognizes the interconnected nature of **climate change and pollution**, addressing their combined impacts on ecosystems, biodiversity, and human health. IUCN Resolution 5.107 *"Assessing the impacts of environmentally unsustainable industrial-scale agricultural and animal husbandry enterprises"* (2012) calls for the promotion of sustainable agricultural practices that limit greenhouse gas emissions and protect biodiversity, and Resolution 5.083 *"Advancing the role of nature-based solutions to climate change mitigation and adaptation and their potential to contribute to the global climate change regulatory regime"* (2012) emphasizes the advancement of nature-based solutions for climate mitigation and adaptation. Resolutions 15.14 *"Environmental Effects of Acid Rain and Snow and Other Acid Deposition"* (1981)[23] and 16.4 *"Atmospheric pollution"* (1984) highlight the need to reduce harmful emissions, including sulfur and nitrous oxides. More recently, integrated approaches linking ecosystem protection with climate action have been emphasized, supporting the role of healthy ecosystems in both addressing climate change and reducing environmental pollutants in Resolution 7.114 *"Integrated solutions to the climate change and biodiversity crises"* (2020).

In addition, IUCN's policy addresses broader environmental concerns, where air pollution, climate change, and land degradation are interconnected. In 2004, the Union has adopted Recommendation 3.102 *"Conservation of Mediterranean-type ecosystems"* (2004), which highlights the unique biodiversity and environmental challenges faced by Mediterranean-type ecosystems, including air pollution and climate change. These ecosystems, highly vulnerable to the combined

[23] Status: Archived

effects of air pollution and climate change, require targeted conservation efforts. The recommendation calls for measures to safeguard and restore natural areas, provide access to nature for urban residents, and promote sustainable cities. The degradation of Mediterranean ecosystems, compounded by air pollution, underscores the urgent need for action to protect these vulnerable regions from further harm.

IUCN has also recognized the growing frequency and intensity of **dust and sandstorms** (DSS), driven by desertification, climate change, and unsustainable land-use practices like overgrazing and deforestation. The resulting aeolian aerosols have severe impacts on ecosystems, human health, and socio-economic activities, not only in source areas but also in downwind regions, contributing to air pollution, reduced visibility, and climate change. In its Recommendation 5.182 on *"International cooperation towards the mitigation of adverse impacts of aeolian aerosols"* (2012), IUCN calls for international cooperation to address these issues by establishing a global aerosol monitoring network, developing early warning systems, and conducting microbial risk assessments. It encourages governments and IUCN Members to work with international agencies like the United Nations Convention to Combat Desertification (UNCCD) and World Meteorological Organization (WMO) to improve monitoring, provide financial support for desertification prevention, and assess the ecological and human health impacts of aeolian aerosols.

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4. Case study: IUCN's engagement in the Intergovernmental Negotiating Committee (INC) on Plastic Pollution

According to the 2022 OECD Global Plastics Outlook: Policy Scenarios to 2060, the amount of plastic waste produced globally is on track to almost triple by 2060, with around half ending up in landfills and less than a fifth recycled. In the absence of ambitious, co-ordinated and global policy action, leakage of plastics into rivers and oceans is anticipated to further grow by one-third, from 6 million tonnes (Mt) in 2020 to more than 9 Mt by 2040[24]. This alarming trend is anticipated to accelerate plastic leakage to both terrestrial and aquatic environments, leading to

[24] OECD 2023 Interim-Findings-Towards-Eliminating-Plastic-Pollution-by-2040-Policy-Scenario-Analysis

further adverse consequences for humanity, human health, the environment, biodiversity, ecosystems and climate.

Against this background, in March 2022, at the resumed fifth session of the UN Environment Assembly (UNEA-5.2), a historic resolution was adopted calling for the development of an international legally binding instrument on plastic pollution, including in the marine environment. UNEA Resolution 5/14 *"End plastic pollution: Towards an international legally binding instrument"* (2022) requested the Executive Director of the UN Environment Programme (UNEP) to convene an Intergovernmental Negotiating Committee (INC) to develop "the instrument," which is to be based on a comprehensive approach that addresses the full life cycle of plastic, including its production, design, and disposal.

The INC commenced its work in the second half of 2022, with the ambition to complete the negotiations and produce a treaty text by the end of 2024. In practice, it has been decided that there will be a total of five INC meetings to facilitate the negotiations process. The schedule of the meetings is as follows: INC-1 in November 2022 in Uruguay, INC-2 in May 2023 in France, INC-3 in November 2023 in Kenya, INC-4 in April 2024 in Canada and INC-5 in November 2024 in the Republic of South Korea. Following the first part of INC-5, the second part (INC-5.2) took place from 5 to 15 August 2025 in Geneva, Switzerland, and preceded by regional consultations.

Where we started

IUCN has consistently advocated for strong measures to minimize plastic pollution, particularly through its Resolutions. Resolution 5.136 *"Effective strategy and actions to address the worsening problem of petrochemical plastic and other solid wastes"* (2012) calls on governments implement laws to minimize the use of plastic and to ensure shared responsibility throughout the life cycle of products. It also suggests that States should address the problems of production, consumption, unsustainable disposal and management of solid wastes. Building on this, in Resolution 6.049 *"Promoting regional approaches to tackle the global problem of marine debris (litter)"* (2016), IUCN urges its Member States to remove the accumulated plastic debris from the coastal and marine environment. This Resolution also highlights the importance of accelerating the development of waste collection infrastructure and the plugging of post-collection leakage, explore treatment options to convert plastic waste to material or energy, and investigate the different innovations in recovery technologies.

In 2021, during its Congress, IUCN adopted Resolution 7.019 *"Stopping the global plastic pollution crisis in marine environments by 2030"* (2020), which calls on the international community to reach a global agreement to combat marine plastic pollution, aiming to:

a) ensure resource efficiency and circular economy through the elimination of unnecessary production and use of plastic, and the promotion of innovation along the entire value chain;

b) promote responsible management of single-use plastic;

c) invest in environmentally sound plastic waste collection and recycling and disposal systems;

d) introduce measures to significantly reduce discharges of plastic litter to the ocean;

e) work to improve knowledge of the sources of plastics and their impacts on the environment;

f) carry out public-awareness measures; and

g) mobilize technical and financial support to facilitate implementation of these actions.

Additionally, Resolution 7.069 *"Eliminate plastic pollution in protected areas, with priority action on single-use plastic products"* (2020) addresses the issue of plastic pollution in protected areas and urges State Members to take priority action to prevent pollution from single-use plastic products by 2025, with the ultimate goal of eliminating all plastic pollution.

What we did

The key messages of these IUCN Resolutions have been and continue to be communicated throughout the ongoing negotiations[25], with IUCN requesting negotiators to:

➢ Agree to measurable, ecologically sustainable objectives, targets and actions to stop all plastic pollution by 2030 and end pollution from single use plastics by 2025, addressing the circularity of production and consumption patterns (SDG 12) in line with biodiversity goals and targets (ambitious timelines).

➢ Consider States' national and local circumstances and capabilities (including municipalities, cities, informal sector, and SMEs), indigenous peoples, local communities, women and youth, as well as obligations under other relevant MEAs and international instruments. IUCN has emphasised that reducing plastic production, phasing out of harmful subsidies, and eliminating products and chemicals of concern will be key to achieving this outcome, as will the adoption of strong national plans, national reporting requirements, and a robust compliance mechanism.

➢ As the leading voice for nature and conservation, IUCN stresses the importance of including biodiversity as a central element of these negotiations and the future Treaty text, with the intent that this would be used to assist States in incorporating their biodiversity conservation laws and rules with their new legal and regulatory measures under the future Plastics Treaty and vice versa.

Thus, IUCN's delegation to the INC meetings, composed of five representatives from the IUCN Secretariat and the World Commission on Environmental Law (WCEL), has been closely collaborating with Regional Offices and actively engaging in all aspects of the INC. The focus has been on nature conservation and the interlinkages between the chemicals and waste agenda, the SDGs and international biodiversity

[25] See also the updated IUCN webpage dedicated to INC here.

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law, goals and targets, and relevant IUCN Resolutions, including Resolution 7.019 "Stopping the global plastic pollution crisis in marine environments by 2030" (2020), and Resolution 069 *"Eliminate plastic pollution in protected areas, with priority action on single-use plastic products by 2025"* (2020).

IUCN has also been contributing its project experience on the ground, namely through the initiatives such as AFRIPAC and the End Plastic Pollution International Collaborative (EPPIC).

More generally, through its engagement in the INC process, IUCN also aims to showcase the importance of biodiversity connections in the pollution, chemicals and waste spheres, the role of Nature-based Solutions and the connections with its nature-positive work, addressing the triple planetary crisis in a holistic and systemic way, embedding nature and people as allies.

IUCN has provided substantial inputs through the IUCN Position Paper for INC-1 (adapted as policy briefs for INC-2 and INC-3), a new IUCN Issues brief on Plastic Pollution, and a number of submissions[26] as well as through IUCN WCEL legal briefings for negotiators (in English, French and Portuguese), statements from the floor at INC meetings, participation and co-hosting of side-events at INC-2[27], INC-3[28], INC-4, INC-5.1 and INC-5.2.

Furthermore, IUCN has engaged through webinars and brown bag lunches in collaboration with Geneva Environment Network, the IUCN French Committee, WCEL, and IUCN Regional Offices. Other contributions include a dedicated Webpage Intergovernmental Negotiation Committee on Plastic Pollution, blogs[29] and a specific internal mailing list (PlasticsTreaty@iucn.org).

Ahead of the fourth session (INC-4), held from 23 to 29 April 2024 in Ottawa, Canada, IUCN and WCEL released a first proposal for the legal text of a specific biodiversity article[30] .The proposal received positive support during INC-4 from state parties and stakeholders (see: IUCN Policy Brief "*A global plastics treaty and biodiversity: converging or conflicting regimes?*" *and "A future plastics treaty needs a specific article on biodiversity: IUCN's proposal*").

These measures were continued into the pre-INC-5.1 and INC-5.1 phases and were introduced in a written submission by a Member State during INC-5.1. Thus, IUCN priorities at INC-5.1 were to explaining and disseminating the **options on biodiversity language to be**

[26] Submission to INC-2, including the set of WCEL legal briefings, Submission and updated WCEL briefings to INC-3 ; Submission to the UNEP Global Consultation on Chemicals and Waste Issues of Concern (unep.org), and Submissions to the Science-Policy Panel (SPP) on chemicals, waste and pollution prevention as well as to the WTO Dialogue on Plastics Pollution processes, as both processes are connected to the plastics negotiations and also represent a critical intersection of IUCN's expertise in pollution science, law and policy.

[27] Official INC-2 Side Event "Biodiversity matters: Addressing marine plastic pollution sources and leakage - IUCN 10 years' experience" (1 June 2023).

[28] Official INC-3 Side Event "Monitoring the situation and monitoring progress of the future instrument: objectives/targets and their associated baselines, indicators and timelines" (15 November 2023).

[29] Cf. IUCN Blog issued shortly after INC-4 closing: "Together we are stronger": the world moves toward a future plastics treaty, a fundamental shift for our plastic-filled world" - Blog | IUCN; the IUCN blog post on INC-5.1 and the updated IUCN webpage dedicated to INC-5.

[30] The IUCN Brief is available in English, Spanish, French, and Portuguese.

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included in the future Plastic Treaty, based on IUCN, IUCN WCEL, Fauna & Flora and the Zoological Society of London ZSL paper on Biodiversity in the Future Global Plastics Treaty and the IUCN, WCEL, Fauna & Flora and ZSL One-Pager on Reinforcing Commitments to Nature and Communities: Options to include Biodiversity in the future Global Plastics Treaty. Those textual options aimed at advancing ambition in the ILBI context and ensuring a clear nexus with critical topics such as biodiversity and circular economy solutions (including upstream/midstream measures such as reuse, refill; primary plastic production, circularity and nature positive business models for SMEs, and subsidies).

While two Open Ended Expert Groups were authorized between INC-4 and INC-5, their scope was quite limited as were the options for participation of any non-State actors like IUCN. These groups focused on financial mechanisms and capacity-building measures under the future Treaty as well as the generation of criteria and non-criteria lists for certain products and chemicals in products that may be covered by the future Treaty. IUCN participated and contributed to those discussions of the Ad Hoc Intersessional Open-ended Expert Groups, in being part of and supporting the Sao Tomé and Principe delegation, a member country of the AFRIPAC project.

At INC-5.1, one member of the IUCN Plastics Treaty team, who represents IUCN WCEL, was appointed to serve as a representative for Guinea Bissau, another AFRIPAC participating country, on the Legal Drafting Group.

As INC-5 was intended to be the final session, countries focused on finalizing a draft treaty. With no consensus reached, State Parties adjourned the fifth session and agreed to resume negotiations at a later date during the resumed fifth session in 2025, the second Part of the Fifth Session (INC-5.2.), held from 5 to 14 August 2025 in Geneva, Switzerland. As INC-5.2 should have been – again – the final session, countries focused on finalizing a draft treaty, based on the 'Chair's Text'[31], with the Chair releasing a Draft Text Proposal and a Revised Text Proposal over the course of the session (proposed texts). The goal of the session was also to highlight unresolved issues requiring further preparatory work ahead of a diplomatic conference. Despite intensive engagement, Members of the Committee were unable to reach consensus on the treaty's text and finally adjourned the resumed fifth session, agreeing to continue negotiations at a future date and place to be announced.

Where we landed

IUCN advocates for a future Plastics Treaty that is science-based and addresses through clear and verifiable obligations all phases of the

[31] Chair's Text, Intergovernmental Negotiating Committee to develop an international legally binding instrument on plastic pollution, including in the marine environment, 1 December 2024

plastics lifecycle, not only downstream and waste management. IUCN generally supports a reduction of production of primary plastics polymers and products at a sustainable level and the phasing out of harmful subsidies, as well as increased transparency of trade flows, including import and export data of plastics.

Word cloud developed based on 2,288 documents uploaded before, during or after INC-1, 2, 3 and 4. Stop words, numbers, action verbs and common treaty language (e.g. treaty, inc, chair, annex,...) were removed before developing the cloud

Biodiversity is still missing as a key element of the draft text to date and IUCN, IUCN WCEL and champion nations are working to change this. As a leading provider of biodiversity knowledge, tools and standards that help conservation planning and legislation, IUCN can meaningfully contribute to the discussions framing the content of the future Plastics Treaty. The existing knowledge products and the legal briefs developed by IUCN together with other tools and the wealth of projects experience vested in the different regions of the Union, especially the AFRIPAC project and the IslandPlas projects, are of particular relevance supporting countries in providing scientifically-sound inputs for a nature positive outcome, and subsequently assessing progress towards meeting them. IUCN has the potential to tap into at all levels – from a legal, science, technical and policy standpoint.

The negotiation process is still the opportunity for IUCN to come together as a Union and maximize this potential for the adoption of a new Multilateral Environmental Agreement (MEA), increase its visibility and impact, and also a pivotal point in IUCN's efforts to include biodiversity-specific language and terms in a future treaty, emphasizing the need for treaty convergence, coherence with global biodiversity strategies, including the GBF as part of the Convention on Biological Diversity (in particular its Targets 7, 14 and 18), the SDGs, (in particular SDG12 and SDG 14.1), the High Seas Treaty and the Ramsar Convention, and complementarity between different agreements.

Based on the two IUCN Resolutions: Resolution 7.019 "Stopping the global plastic pollution crisis in marine environments by 2030" (2020), and Resolution 069 *"Eliminate plastic pollution in protected areas, with priority action on single-use plastic products by 2025"* (2020), and aligned with CBD COP 16 decisions, Global Biodiversity Framework Targets (GBF), and IUCN's policy and project experience, besides helping get a consensus, IUCN's **objectives** for the outcome of the negotiations are three-fold:

1. Strategically influence the negotiations towards the inclusion biodiversity-specific language and terms, in combination with specific language on "International Cooperation" in the future treaty, by providing legal text-based input.

2. Position and secure IUCN's role as key player in the nature positive implementation of the Treaty (methodologies, criteria, data, support for National Action Plans, capacity building, monitoring), once adopted (e.g. through a Plastics Treaty Explanatory Guide).

3. Increase IUCN's influence, visibility and impact whilst promoting and advancing IUCN's policy [32] and projects (AFRIPAC, EPPIC, IslandPlas Project, Pacific, Caribbean, and IUCN Plastics work globally) as well as its Programme – Nature 2030 and be prepared for the relevant discussions on plastic pollution at Congress 2025.

IUCN will continue to engage in the negotiations providing science-based expertise and evidence to ensure the development of a robust instrument with high environmental integrity, that address the critical intersections between plastics pollution, circular economy solutions, trade and the related impacts on biodiversity and health – considering also the latest outcomes of the Biodiversity COP 16 Convention on Biological Diversity (CBD), e.g. on "Biodiversity and Health" or on "Strengthening the role of indigenous peoples and local communities", GBF, Target 7 [33] and is aligned with other Multilateral Environmental Agreements (MEAs) and Treaty regimes, such as the Basel, Rotterdam and Stockholm Conventions on Chemicals and Wastes (BRS MEAs), and the Global Framework on Chemicals.

IUCN advocates for a future Plastics Treaty to include:

1. Full plastics lifecycle coverage - from production, reuse, recycling to waste management and end-of-life, per UNEA Resolution 5/14 *"End plastic pollution: Towards an international legally binding instrument"* (2022).
2. International cooperation clause - coordination between treaty governance and other MEAs (Basel, Rotterdam, Stockholm Conventions, Global Biodiversity Framework) plus relevant organizations like WHO, WTO, ILO, OHCHR, and scientific institutions.

3. Biodiversity protection reference - safeguarding ecosystems from current and future plastic pollution as standalone article or combined with a reference to "Health", following a biodiversity and health linked approach (One Health).

The inclusion of biodiversity-specific articles and terms, combined with a OneHealth approach, as well as on international cooperation would advance efforts to break the silos and support a common approach under different agreements and organizations and thus achieve a better outcome for nature, people and to the planet.

[32] IUCN's Resolutions and Recommendations: https://portals.iucn.org/library/resrec/search

[33] *TARGET 7: Reduce pollution risks and the negative impact of pollution from all sources by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: (a) by reducing excess nutrients lost to the environment by at least half, including through more efficient nutrient cycling and use; (b) by reducing the overall risk from pesticides and highly hazardous chemicals by at least half, including through integrated pest management, based on science, taking into account food security and livelihoods; and (c) by preventing, reducing, and working towards eliminating plastic pollution.*

Once the future Plastics Treaty would be agreed and formally adopted, IUCN is committed to continuing its work in the plastic pollution sphere by providing support throughout the ratification process by developing an explanatory guide – as has been done by the IUCN Oceans Team and the Centre for Policy and Law for the BBNJ Treaty – and into the implementation process.

IUCN and IUCN WCEL stand ready to provide legal, policy and technical expertise to States, organizations and stakeholders throughout the ratification and implementation process, including during the Conferences of the Parties, which are expected to be the designated method of governance for the future Treaty. Additionally, IUCN and IUCN WCEL stand ready to assist States with the development, implementation and evaluation of necessary laws, rules, national action plans and national reporting measures. This work would build on the gap analysis work already completed by IUCN and IUCN WCEL for the purposes of assisting the countries in identifying areas of existing law and policy that will need reform once the Treaty is adopted.

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5. Summary and potential gaps in IUCN's general policy on pollution

Chemicals, waste, and pollution are interrelated matters. The area is broad, encompassing:

- the full life cycle of both natural and synthetically produced industrial materials, chemicals and pesticides;
- the extraction, mining, production, trade, use, recycling, and waste management of chemicals, certain products such as plastics, materials, elements such as minerals and metals, but also of other resources; and
- the disposal and management of waste materials which pollute our air, soil, and waterways both in their original forms and as they break down over time.

These waste and pollution challenges posed throughout the full lifecycle – from extraction, process and production to end of life – of many materials/products are multifaceted and require a holistic response with regard stopping pollution, based on scientific evidence and data/information.

As a major threat to climate, biodiversity, welfare and human health, transformational change to our production and consumption patterns, including chemicals and waste management – from a linear to a circular economy – is needed[34]. Circular economy has important potential benefits for nature but needs to be integrated more closely with biodiversity policies and strategies. This will help ensure unintended negative impacts are avoided while strengthening its positive contribution to nature[35] and people depending on it.

Various parallel processes and activities under the broader international chemicals, waste and pollution agenda have strong interlinkages with Biodiversity goals and targets, Nature and People, and relevant IUCN Resolutions on Pollution, such as:

- Basel, Rotterdam and Stockholm Conventions on Chemicals and Waste (BRS MEAs) and other multilateral environmental agreements such as the Minamata Convention on Mercury decisions and reports, including implementation and specific partnerships.

- The SAICM Process and its outcomes, the "Global Framework for Chemicals (GFC) – For a Planet Free of Harm from Chemicals and Waste" and the "Bonn Declaration – for a Planet Free of Harm from Chemicals and Waste," adopted on the 30 September 2023 at the Fifth session of the International Conference for Chemicals Management (ICCM5), its decisions and implementation, including capacity building, specific workstreams and resource mobilization.

- The establishment of the new Science Policy Panel on Chemicals, Waste and Pollution (SPP)[36], including the activities done by the International Resource Panel (IRP). The new panel will be hosted by UNEP. The next step is to prepare for the panel's first plenary session, where governments will discuss and adopt its initial work programme, priorities, and partner engagement, among other issues.

- WHO work on Chemical safety and health, ILO safety-and-health-at-work toolkit, ILO position on SAICM[37] and WTO engagement rules and work.

These discussions and outcomes are relevant for the implementation of in particular SDG 12 on sustainable production and consumption, of circular economy solutions and just transition, but also for other IUCN areas of work under the broader chemicals, waste and pollution agenda, especially on the Plastics Treaty under negotiation in the INC, and the Extraction and Mining processes, agriculture and finally on Trade (in WTO). They are also an essential nexus point to the GBF.

Reflecting this, in Paragraph 19 of CBD Decision 16/35 on "Cooperation with other conventions and international organizations" (February 2025),[38] 196 Parties to the CBD invited the

[34] Turning off the Tap: How the world can end plastic pollution and create a circular economy | UNEP - UN Environment Programme; Trade and environment review 2023 | UNCTAD.

[35] IUCN report: To fulfil its promise, circular economy must take biodiversity into account - News | IUCN

[36] UNEP/EA.5/Res.8

[37] ILO Framework for Action on Chemicals and Waste, May 2022.

[38] CBD/COP/DEC/16/35

Secretariats of the GFC, the BRS Conventions, and the 3 Rio Conventions, as well as the UN Food and Agriculture Organization (FAO), to collaborate specifically on the implementation of GBF Target 7 "Reduce Pollution to Levels That Are Not Harmful to Biodiversity". Target 7 of the Global Biodiversity Framework commits the international community to an at least halving of risk to biodiversity from pesticides and highly hazardous chemicals by 2030 and addresses plastic pollution also.

Based on this, the secretariat of the Global Framework on Chemicals, in collaboration with the secretariats of the Basel, Rotterdam and Stockholm conventions, as well as the Secretariat of the Minamata Convention, prepared a report on the Contributions of the chemicals and waste international agreements and frameworks to the Kunming-Montreal Global Biodiversity Framework (May 2025). [39] The report includes a series of guiding questions for national target-setting under the GBF, serving as a starting point for parties seeking to update their national biodiversity strategies with a view to better integrating considerations related to chemicals and waste. It is driving forward an approach to the synergistic implementation of multilateral environmental agreements on biodiversity, chemicals and waste.

Further, the new Science-Policy Panel on Chemicals, Waste and Pollution[40] could provide guidance on integrating considerations related to pollution into the implementation of relevant multilateral environmental agreements, including the GBF, and other international instruments, intergovernmental bodies, the private sector and other relevant stakeholders in their work.

Considering 2025 Congress decisions and as new IUCN policy on pollution is adopted, IUCN could potentially lead the issue by expanding its policy framework through dedicated Resolutions and strategies or guidance that addresses the potential ways for managing these topics, considering the GBF and in particular its Target 7 on pollution, while also assessing the state of laws and rules, defining a clear policy framework to address these challenges and targeted actions, support broader understanding of the issue and contribute to addressing gaps in legal and regulatory structures and engaging in the process of generating new laws and rules across all levels. The policy focus could include support for further scientific and legal analysis, and facilitation of implementation at international, regional and national levels, in close collaboration with relevant stakeholders and partners, catalysing enhanced national coordination in addressing pollution and biodiversity agendas.

Finally, IUCN tools and knowledge products including the *IUCN Red List of Threatened Species™*, *the IUCN Global Standard for Nature-based Solutions*, *Panorama Solutions*, and the *UNEP/IUCN National Guidance for*

[39] UNEP/GFC/OEWG.1/INF.9

[40] Established on 20 June 2025 under the mandate of the United Nations Environment Assembly (UNEA) Resolution 5/8 (UNEP/EA.5/Res.8)

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[*Plastic Pollution Hotspotting and Shaping Action*](), alongside emerging work on a living nature positive approach and our well-advanced work on gender mainstreaming across MEAs, could support the operationalization of the pollution agenda in concrete ways.

Building on the IUCN Resolutions mentioned above, and in view of the upcoming IUCN 2025 Congress, the following topics could be considered as potential areas where IUCN's overall policy framework on chemicals, waste, and pollution may need further development or clarification.

- **Air Pollution:** IUCN's existing policy framework addresses important aspects of air pollution, including acid precipitation, ozone depletion, energy systems, Mediterranean ecosystems, and desertification-related dust storms. At the same time, areas such as fine particulate matter, nitrogen pollution, urban and industrial emissions, health integration, biodiversity-specific impacts, and newer international frameworks represent potential areas for improvement within current resolutions.

- **Climate Change and Pollution:** IUCN Resolutions cover key aspects of emissions reduction, sustainable agriculture, and nature-based solutions, several areas could be strengthened. Expanding policy guidance in these areas would support more coherent, cross-sectoral responses to the combined challenges of climate change and pollution, enhancing both ecosystem resilience and human health outcomes.

- **Water pollution:** Despite IUCN's coverage of water pollution from extractive industries, agriculture, plastics, and chemicals, key gaps remain. These include limited guidance on monitoring and evaluating pollution control, integrating multiple pollutants with biodiversity conservation, and addressing emerging contaminants such as microplastics. Additional opportunities exist to strengthen policy on socio-economic considerations, transboundary governance, and the scaling-up of implementation measures to ensure effective and equitable protection of freshwater and marine ecosystems.

- **Noise Pollution:** There is a notable gap in IUCN's general policy framework regarding noise pollution, particularly as it pertains to the growing concerns over broader environmental noise beyond underwater noise. Guidance on systematic monitoring, long-term ecological impacts, and cumulative effects of noise across ecosystems remains limited, and terrestrial and freshwater noise pollution receive comparatively little attention.

- **Dark and Open Skies:** The current IUCN Resolutions on dark and open skies provide important guidance but could be broadened to cover additional ecosystems and sources of light pollution, and strengthened by including more concrete measures, monitoring approaches, and targets for implementation.

- **Chemicals and Wastes Management:** As the global landscape of chemical use and regulation evolves, IUCN could update its policy approach to reflect the outcomes of the Basel, Rotterdam and Stockholm Convention COP 2025, the Strategic Approach to International Chemicals Management (SAICM) and the Global Framework on Chemicals (GFC), with particular attention to *Pesticides*. The ongoing establishment of a global alliance on highly hazardous pesticides[41], with the goal of taking effective measures to phase out highly hazardous pesticides in agriculture where the risks had not been managed and where safer and affordable alternatives were available. Stakeholders are invited to contribute to the further development of the operational framework outlined in global-alliance-pesticides.pdf.

- **Critical Minerals and Mining Activities**: Another emerging policy area is addressing the environmental impacts of critical minerals, particularly those used in electric vehicles (EVs) and other emerging technologies. IUCN's policy could be expanded relating to critical minerals and mining activities, especially relating to EVs and similar areas of concern raised at the UNEP consultation process in 2023. With raising demand for *energy transition minerals*, particularly those identified in the 2023 UNEP publications and consultations, IUCN's policy approach could be updated to address the environmental and regulatory challenges associated with these minerals. Further, the environmental impact of *mining waste, including tailings and other mining-related waste products*, as identified in the 2023 UNEP publications and consultations on mining and minerals, could be assessed by IUCN, focusing on the need for better regulatory frameworks at all levels.

- **Litigation and Legal Rights of Natural Resources**: IUCN's policy could be expanded to recognize the role of litigation in establishing the legal standing and rights of rivers and other natural resources. By linking these rights to pollution issues, IUCN could support advancing the legal and policy frameworks needed to protect nature and biodiversity through targeted studies and legal analysis to address the state of the law and identifying pathways to advance the nexus between rights-based approaches and the protection of nature and biodiversity.

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[41] Global Framework on Chemicals Resolution V/11: Highly hazardous pesticides


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List of Key References

- **CBD** (2025). *Decision 16/35* - Cooperation with other conventions and international organizations." February 2025. CBD/COP/DEC/16/35.
- **ILO** (2022). *Framework for Action on Chemicals and Waste.*
- **IMO** (2017). *International Code for Ships Operating in Polar Waters (Polar Code).*
- **IUCN** Resolutions and Recommendations Platform.
- **IUCN** (2020). *Resolution 7.001 – Archiving Resolutions and Recommendations meeting retirement criteria, consolidating policy and future reviews.*
- **IUCN** (2023). *Official INC-2 Side Event: "Biodiversity matters: Addressing marine plastic pollution sources and leakage — IUCN 10 years' experience."* 1 June 2023.
- **IUCN** (2023). *INC-3 Side Event: "Monitoring the situation and monitoring progress of the future instrument: objectives/targets and their associated baselines, indicators and timelines."* 15 November 2023.
- **INC** (2024). *Chair's text: International legally binding instrument on plastic pollution, including in the marine environment.* 1 December 2024.
- **IUCN** (2024). *Together we are stronger: the world moves toward a future plastics treaty, a fundamental shift for our plastic-filled world.* [Blog post].
- **IUCN** (2024). *To fulfil its promise, circular economy must take biodiversity into account.*
- **OECD** (2023). *Interim Findings: Towards Eliminating Plastic Pollution by 2040 – Policy Scenario Analysis.* Paris.
- **UNGA** (2017). *Resolution 71/312 – Our Ocean, Our Future: Call for Action*. A/RES/71/312.
- **UNGA** (2022). *Resolution 77/161 – Promoting zero-waste initiatives to advance the 2030 Agenda for Sustainable Development.* A/RES/77/161.
- **UNCTAD** (2023). *Trade and Environment Review 2023.*
- **UNEA** (2022). *Resolution 5/8 – End plastic pollution: towards an international legally binding instrument.*
- **UNEA** (2022). *Resolution 5/12 – Environmental aspects of minerals and metals management.* UNEP/EA.5/Res.12.

- **UNEA** (2022). *Resolution 5/14 – End plastic pollution – Towards an international legally binding instrument.*
- **UNEA** (2024). *Resolution 6/4 – Promoting synergies, cooperation, or collaboration for national implementation of multilateral environmental agreements and other relevant environmental instruments.*
- **UNEA** (2024). *Resolution 6/5 – Environmental aspects of minerals and metals.*
- **UNEA** (2024). *Resolution 6/9 – Sound management of chemicals and waste.*
- **UNEA** (2024). *Resolution 6/11 – Highly hazardous pesticides.*
- **UNEP** (2025). *Why does chemicals and pollution action matter?*
- **UNEP** (2023). *Turning off the Tap: How the world can end plastic pollution and create a circular economy.* Nairobi.
- **UNEP Global Framework on Chemicals** (2025). *Resolution V/11 – Highly hazardous pesticides.*
- **UNEP** (2025). *UNEP/EA.6/HLS.1 – High-Level Segment Declaration.*
- **UNEP** (2025). *UNEP/GFC/OEWG.1/INF.9 – Information document for the Open-ended Working Group on Chemicals and Waste.*
- **WTO** (2024). *Plastics pollution and environmentally sustainable plastics trade.*

Annex 1: Connecting IUCN Resolutions that focus on pollution to the relevant international fora/treaties

Various parallel processes and activities under the broader international chemicals, waste and pollution agenda have strong interlinkages with Biodiversity goals and targets, Nature and People, and relevant IUCN Resolutions on Pollution, such as:

- Basel, Rotterdam and Stockholm Conventions on Chemicals and Waste (BRS MEAs) and other multilateral environmental agreements such as the Minamata Convention on Mercury.
- The SAICM Process and its outcomes, the "Global Framework for Chemicals (GFC) – For a Planet Free of Harm from Chemicals and Waste" and the "Bonn Declaration – for a Planet Free of Harm from Chemicals and Waste," adopted on the 30 September 2023 at the Fifth session of the International Conference for Chemicals Management (ICCM5).
- Based on UNEA Resolution 5/8 the new "Science-Policy Panel on Chemicals, Waste and Pollution", established at the Resumed Third Session of the Ad Hoc Open-ended Working Group (OEWG 3.2) and the subsequent Intergovernmental Meeting on 20 June 2025, at Punta del Este, Uruguay.
- Based on UNEA Resolution 5/14, the second part of the fifth session of the Intergovernmental Negotiating Committee to develop an international legally binding instrument on plastic pollution, including in the marine environment (INC 5.2.), from 5 to 14 August 2025 at the Palais des Nations in Geneva, Switzerland.
- UNEPs Global Consultation on Chemicals and Waste Issues of Concern (unep.org).
- WHO (Chemical Safety and Health (who.int)) and ILO engagement (ILO safety-and-health-at-work toolkit; ILO position on SAICM),) rules and work.
- WTO engagement to address trade and plastics regulation issues, including through the WTO Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade.[42]
- The 2023 UN-system-common-approach-to-Pollution.
- UN General Assembly Resolution establishing "The human right to clean, healthy and sustainable environment" in July 2022.
- UN General Assembly Resolution on "Zero Waste Initiative."[43]
- UNEA Resolution 5/12 to convene transparent and inclusive intergovernmental regional consultations with the aim of developing non-prescriptive proposals to enhance the environmental sustainability of minerals and metals along their full life cycle and to align the mining practices and the investments in mining with the 2030 Agenda for Sustainable Development and with their obligations and decisions under multilateral environmental agreements (mining).
- UNEA Ministerial declaration of the United Nations Environment Assembly at its sixth session.
- UNEA Resolution 6/4 on Promoting synergies, cooperation or collaboration for national implementation of multilateral environmental agreements and other relevant environmental instruments.
- UNEA Resolution 6/5 on Environmental aspects of minerals and metals.
- UNEA Resolution 6/9 on Sound management of chemicals and wastes.
- UNEA Resolution 6/11 on Highly hazardous pesticides.

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[43] Resolution adopted by the General Assembly on 14 December 2022, called "Promoting zero-waste initiatives to advance the 2030 Agenda for Sustainable Development", recommends – inter alia – the continuation of the discussion on zero-waste initiatives within the relevant United Nations entities, on the basis of verified data on sustainable and environmentally sound waste management, among other considerations, within their work on sustainable consumption and production (N2275633.pdf (un.org)), considering "waste pickers" and role of municipalities.

Type of pollution	Ecosystems	IUCN Resolutions related to this issue	Related international fora / Treaties[44]
Chemicals (oil, dangerous goods)	Marine	• Resolution 19.47 – Marine Pollution • Resolution 2.91 – Ocean pollution by oil • Resolution 7.026 - International cooperation on marine pollution from sunken vessels	• The International Convention for the Prevention of Pollution from Ships – Annex I • International Maritime Organization
Noise	Marine	• Resolution 7.113 – Restoring a peaceful and quiet ocean • Resolution 5.081 – Addressing ocean noise pollution in Africa • Resolution 3.068 – Undersea noise pollution	• UNEP Regional Sea Agreements • Convention on Migratory Species • Convention on Biological Diversity - KM-GBF, Target 7 • High Seas Treaty • International Maritime Organization
Wastewater pollution from ships	Marine	• Resolution 7.028 – Updating of the legislation to stop the pollution of oceans by the discharging of wastewater by ships • Resolution 5.066 – Antarctica and the Southern Ocean	• The International Convention for the Prevention of Pollution from Ships – Annex IV • Polar Code • International Maritime Organization • High Seas Treaty • Convention on Biological Diversity, KM-GBF • UNEP Regional Sea Agreements • Sustainable Development Goals
Plastic (chemicals and waste)	Marine, water, land, protected areas	• Resolution 7.069 – Eliminate plastic pollution in protected areas, with priority action on single-use plastic products • Recommendation 17.19 – wastes • Resolution 7.019 – Stopping the global plastic pollution crisis in marine environments by 2030 • Resolution 6.049 – Promoting regional approaches to tackle the global problem of marine debris (litter) • Resolution 5.136 – Effective strategy and actions to address the worsening problem of petrochemical plastic and other solid wastes	• Intergovernmental Negotiating Committee on Plastic Pollution (from UNEA Resolution 5/14) • Convention on Biological Diversity - KM-GBF, Target 7 • Basel Rotterdam Stockholm Conventions • Strategic Approach to International Chemicals Management – Global Framework for Chemicals – For a Planet Free of Harm from Chemicals and Waste" and the "Bonn Declaration – for a Planet Free of Harm from Chemicals and Waste • High Seas Treaty • UNFCCC and the Paris Agreement • World Trade Organization (Dialogue on Plastics)
Hazardous waste and Radioactive waste	Marine, land, water and soil	• Resolution 3.069 – Status of floating atomic power stations in the world's oceans • Resolution 3.088 – Support for the "Ban Amendment" to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and the Disposal	• Basel Rotterdam Stockholm Conventions • Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) - (Annex I)

[44] NB: the establishment of the new science-policy panel on chemicals, waste and pollution will cover all types of pollution activities/obligations in related international fora/treaties. UNEA Resolution 5/8.

Type of pollution	Ecosystems	IUCN Resolutions related to this issue	Related international fora / Treaties[44]
Pollution from mining activities (chemicals, minerals, metals, waste)	Marine, land, protected areas, water, forests	• Resolution 7.121 – Reducing the impacts of the mining industry on biodiversity • Resolution 7.122 - Protection of deep-ocean ecosystems and biodiversity through a moratorium on seabed mining • Resolution 5.090 – Exploration and exploitation of unconventional fossil fuels	• International Seabed Authority • High Seas Treaty • UNEA 5/12 Resolution on the environmental aspects of minerals and metals • Minamata Convention • Basel Rotterdam Stockholm Conventions • Strategic Approach to International Chemicals Management – Global Framework for Chemicals – For a Planet Free of Harm from Chemicals and Waste" and the "Bonn Declaration – for a Planet Free of Harm from Chemicals and Waste • Convention on Biological Diversity - KM-GBF - Target 7
Chemical pollution and pesticides	Marine, land, water and soil	• Resolution 17.20 – Transfer of technology relating to contaminating products including pesticides • Resolution 1.63 – The Promotion of Organic Agriculture • Resolution 7.066 - Generalising alternative practices and techniques to the use of synthetic pesticides	• Convention on Biological Diversity – KM-GBF Target 7 • Strategic Approach to International Chemicals Management – Global Framework for Chemicals – For a Planet Free of Harm from Chemicals and Waste" and the "Bonn Declaration – for a Planet Free of Harm from Chemicals and Waste • Basel Rotterdam Stockholm Convention • Food and Agriculture Organization
Chemical pollution (atmospheric pollutants)	Air, forests, soil, water	• Resolution 16/4 – Atmospheric Pollution	• Convention on Long-Range Transboundary Air Pollution • Stockholm and Rotterdam Conventions • Convention on Biological Diversity - KM-GBF - Target 7
Water pollution (wastes, chemicals)	Water (river, groundwater, surface water, wetlands)	• Resolution 5.070 – Rio de la Plata Basin wetlands regional initiative • Resolution 5.102 – Human rights and access to natural resources in Latin America • Recommendation 3.110 – Promoting responsible management of water resources in the Mekong Region	• Convention on Environmental Impact Assessment in a Transboundary Context • Water Convention • Ramsar Convention • Convention on Biological Diversity - KM-GBF - Target
Chemical pollution (Ozone depleting substances)	Atmosphere, air	• Resolution 17.18 – Depletion of Ozone	• Montreal Protocol on Substances that Deplete the Ozone Layer
Light pollution		• Resolution 7.124 - Taking action to reduce light pollution • Recommendation 5.183- Dark skies and nature conservation	• Convention on Migratory Species • Convention on Biological Diversity - KM-GBF - Target 7

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