Ministry of the Environment and Climate Change



Decree No. 12.644 of October 1, 2025







Decree No. 12.644 of October 1, 2025



Federative Republic of Brazil President

LUIZ INÁCIO LULA DA SILVA

Vice-PresidentGERALDO JOSÉ ALCKMIN FILHO

Ministry of the Environment and Climate Change

Minister

MARINA SILVA

Executive Secretary

JOÃO PAULO CAPOBIANCO

National Secretariat for Climate Change Secretary

ALOISIO LOPES PEREIRA DE MELO

Department of Ocean and Coastal Management
Director

ANA PAULA LEITE PRATES

Marine Pollution Control Division Head

LARISSA CRUZ GODOY

Ministry of the Environment and Climate Change

The National Strategy for a Plastic-Free Ocean (ENOP)

Decree No. 12.644 of October 1, 2025

Brasília/DF MMA 2025 © 2025 Ministry of the Environment and Climate Change

Reproduction for non-profit purposes, in whole or in part, by any means is permitted, provided the source – the Ministry of the Environment and Climate Change – or the website where the originals can be found is cited. www.gov.br/mma.

Technical Contributions

MMA

Adriana Risuenho Leão Carolina Chalegre Daniel Quadros Larissa Cruz Godoy Rickelme Nascimento

UNESCO Chair for Ocean Sustainability

Alexander Turra Carla Elliff Jemilli Castiglioni Viaggi Joana Fava Cardoso Alves Natalia de Miranda Grilli Vitória Milanez Scrich

Revision

Larissa Cruz Godoy

GIZ

Carola Kuklinski Fabiana Cava Hugo Garcês Renata Rodrigues

Translation

Sanny Magri

Graphic Design, Layout and Illustrations

Ângela Ester Magalhães Duarte

The National Strategy for a Plastic Free Ocean (ENOP) is supported by the TerraMar Project, a partnership between the Ministry of the Environment and Climate Change (MMA) of Brazil and the Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety (BMUKN) of Germany. The Project is part of the International Climate Initiative (IKI) and is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, in the context of Brazilian-German Cooperation for Sustainable Development.

The ENOP was developed based on the best available science, with technical and scientific advice from the UNESCO Chair for Ocean Sustainability (USP), and with contributions from several Brazilian scientists affiliated with leading universities and research centres in the areas of marine pollution, circular economy, and human health. In addition, more than 200 participants, representing 98 institutions from the public (federal, state and municipal), private, civil society and social movement sectors, contributed to the workshops held during the process of developing the Strategy.

The team from the Department of Ocean and Coastal Management of the MMA's Secretariat for Climate Change expresses its recognition and gratitude to all the people and institutions that collaborated in the development of this Strategy, a fundamental milestone in the national commitment to protecting the ocean and addressing the climate crisis.

Plastic waste affects the health of coastal ecosystems that contribute to addressing climate change.









Foreword

It is with great joy that we present The National Strategy for a Plastic-Free Ocean (ENOP), a significant milestone for Brazil in addressing one of today's greatest environmental challenges: plastic pollution in our oceans.

Our planet is facing serious interconnected global environmental crises: the climate emergency, loss of biodiversity, land degradation and desertification, pollution, and extreme poverty. The ocean is a source of oxygen, life, livelihood, culture, quality of life, and climate balance. However, it has also been sending us warning signs: the warming and acidification of its waters, combined with the excessive accumulation of plastic, are suffocating biodiversity and degrading marine and coastal ecosystems. These impacts threaten food security, human health, as well as the economy, and undermine the ocean's capacity to regulate the global climate.

Restoring the ocean's health is urgent to ensure sustainability and planetary balance. Achieving this requires coordinated and simultaneous action, employing strategies for conserving and recovering degraded environments, improving governance arrangements, and strengthening measures to effectively prevent and control pollution.

In response to one of these major global challenges, the Federal Government established, through Decree No. 12,644, of October 1st, 2025, an unprecedented strategy, built on the best available science and developed in broad dialogue with civil society, social movements, the private sector, the scientific community, and subnational governments. The ENOP provides guidance and coordination for public policies to prevent, reduce, and eliminate plastic pollution in marine and coastal ecosystems, adopting integrated, strategic, and synergetic lines of action.

More than a planning document, the ENOP represents a true paradigm shift: It mobilizes and engages society, integrates public policies, strengthens national governance, expands human and financial resources, promotes the ecological transition, and provides incentives for research, development, and technological innovation for the environmentally sound production, commercialization, recycling, and final disposal of plastic.

It is not merely a matter of managing waste, but rather of rethinking the entire plastic life cycle and consumption patterns, encouraging the reduction of demand for single-use products, substitution through alternatives with lower polluting potential, and material circularity.

The Strategy is structured into eight axes of action—Standardization and Regulation; Prevention and Circularity; Removal and Remediation; Environmental Education and Public Awareness; Science, Technology, and Innovation; Capacity Building and Technical Assistance; Assessment, Monitoring, and Evaluation; and Promotion and Financing. Together, these axes allow us to address immediate impacts while building a solid foundation for a more sustainable future.

The ENOP is also an agenda for social justice. It seeks to improve quality of life and promote equitable access to natural resources, recognizing that plastic pollution disproportionately affects the most vulnerable populations, especially artisanal fishermen and fisherwomen, and coastal and riverine communities, compromising their livelihoods, health, and food security.

Likewise, it values the protection of marine and coastal ecosystems that sustain the activities of the blue economy, especially sustainable tourism and fisheries. It also acknowledges the essential role of waste pickers of recyclable materials as well as the environmental services they provide to society.

This Strategy also expresses the fulfillment of international obligations undertaken by Brazil, such as the voluntary commitment made in 2017, at the 1st UN Ocean Conference, to develop a strategy to prevent and combat marine litter. It also reinforces our contribution to the Sustainable Development Goals (SDGs), especially SDG 14 (Life Below Water), in addition to SDGs 3, 6, 11, 12, 13, 15, and 17 — and aligns with the objectives of the UN Decade of Ocean Science for Sustainable Development (2021–2030).

The ENOP is both a call to action and a call to cooperation. Given that the ocean transcends national boundaries, the response to this pressing challenge must be collective. With the National Strategy for a Plastic-Free Ocean, Brazil reaffirms its commitment to a clean, healthy, resilient, and productive ocean, which is essential for present and future generations.

Aloisio Lopes Pereira de Melo

National Secretary for Climate Change





Decree No. 12.644 of October 1, 2025

Establishes the National Strategy for a Plastic-Free Ocean for the period of 2025 to 2030.

The PRESIDENT OF THE REPUBLIC, exercising the powers conferred upon him by Article 84, caput, item VI, letter "a", of the Constitution,

DECREE

Art. 1. The National Strategy for a Plastic Free Ocean - ENOP is hereby established for the period 2025-2030, with the purpose of guiding and coordinating public policies for the prevention, reduction, and elimination of plastic pollution in the ocean, through strategic and synergistic actions.

Art. 2. The principles of the **ENOP** are:

- I the recognition of the ocean and coastal and marine ecosystems as essential components for climate regulation, the conservation and sustainable use of biodiversity, the maintenance of ecosystem services, the generation and sharing of prosperity, and social well-being;
- II the recognition of the impacts of plastic pollution on the landscape, on the conservation and use of biodiversity, on food security, on quality of life, on human health, and on economic activities that rely on the coastal and marine environment for their development;
- III the recognition of the importance of the polar regions and the southern portion of the ocean as global climate regulators and sensitive environments threatened by plastic pollution, thereby reinforcing the need for specific measures for their conservation, aligned with national responsibilities under the Antarctic Treaty System;
- IV the recognition of the work of waste pickers of recyclable materials and of the environmental services provided by this category; and

V - the recognition of the National Solid Waste Policy, established by Law No. 12,305 of August 2, 2010, its principles, objectives, and instruments, and the guidelines related to the integrated management of solid waste, including hazardous waste, the responsibilities of generators and public authorities, and the applicable economic instruments.

Art. 3. The guidelines of the **ENOP** are:

- I the consideration of the plastic life cycle, in accordance with the provisions of Art. 3, *caput*, item IV, of Law No. 12,305 of August 2, 2010;
- II the "source-to-sea" approach, which consists of a series of strategies for the prevention and control of plastic pollution carried out in terrestrial and marine areas, considering the connections facilitated by water bodies and by marine and atmospheric currents in the dispersion of plastic waste, including microplastics;
- III the collaboration and engagement of governments, the private sector, organized civil society, the scientific community, and local communities, for the prevention and control of plastic pollution in the ocean;
- IV the recognition of waste pickers of recyclable materials and the environmental services provided by this category;
- V the adoption of measures for non-generation, reduction, reuse, and recycling, treatment, and environmentally sound final disposal of plastic, considering the solid waste management hierarchy, provided for in Art. 9 of Law No. 12,305, of August 2, 2010;
- VI local, regional, and international cooperation to address plastic pollution, particularly in transboundary and oceanic areas;
- VII the strengthening of national and international cooperation mechanisms, ensuring the means of implementation, technology transfer, and the transition to a low-carbon economy through systemic innovation;
- VIII the recognition of World Cleanup Day, adopted in the official calendar of the United Nations, as a day for mobilization and awareness-raising regarding the prevention and control of plastic pollution in the ocean;
- IX the mobilization of society and the promotion of inter-institutional and interfederative partnerships to address plastic pollution in the ocean; and
- X the reconciliation of advances in environmental protection with innovation and the sustainable development of plastic supply chains, with the continuous assessment of their socioeconomic impacts.



Art. 4. The objectives of the **ENOP** are:

I-to address plastic pollution in the ocean, considering the life cycle and consumption patterns, in order to protect natural resources and marine food chains, ensure food security, and encourage the adoption of practices with lower impacts on the environment and human health;

II - to promote the coordination of public policies aimed at the prevention, reduction, and elimination of plastic pollution in the ocean;

III - to encourage the development and implementation of action plans at the federal, state, district, municipal, local, and sectoral levels to address plastic pollution in the ocean;

IV - to stimulate research, development, and technological innovation for the promotion of a clean, healthy, resilient, and productive ocean, with a focus on the production, commercialization, recycling, and environmentally sound final disposal of plastic;

V - to generate sustainable, regenerative, and circular solutions, based on fostering critical and innovative thinking, through the promotion of science, culture, and environmental education;

VI - to expand access to funding sources for the implementation of policies for the environmentally sound production, reduction, use, reuse, recycling, and final disposal of plastic;

VII - to stimulate the improvement of the design, production, and use of highly recyclable plastic products and packaging, to promote the transition to more sustainable alternatives to single-use plastics and to material circularity, and new business models that prioritize dematerialization, sharing, greater durability, and circular and regenerative approaches;

VIII - to contribute to the implementation of Sustainable Development Goal – SDG 14 - Life Below Water, of the United Nations 2030 Agenda;

IX - to contribute to the implementation of the United Nations Decade of Ocean Science for Sustainable Development - 2021-2030; and

X - to promote social justice, the improvement of quality of life, and equitable access to natural resources, considering the sustainable practices and ways of life ofIndigenous peoples and local communities.

Art. 5. The implementation of the **ENOP** shall be carried out in accordance with the international agreements and treaties to which the Federative Republic of Brazil is a party and with the national policies related to the subject.

- **Art. 6.** The implementation axes of the **ENOP**, detailed in the Annex to this Decree, are:
- I Axis 1 Standardization and Regulation;
- II Axis 2 Prevention and Circularity;
- III Axis 3 Removal and Remediation;
- IV Axis 4 Environmental Education and Public Awareness;
- V Axis 5 Science, Technology, and Innovation;
- VI Axis 6 Capacity Building and Technical Assistance;
- VII Axis 7 Assessment, Monitoring, and Evaluation; and
- VIII Axis 8 Promotion and Financing.
- **Art. 7.** The **ENOP** shall be implemented by the Union in cooperation with the States, the Federal District, the Municipalities, civil society organizations, the scientific community, and private entities.
- **Art. 8.** Within the scope of the Federal Government, the **ENOP** shall be implemented through an action plan to be developed under the coordination of the Ministry of the Environment and Climate Change, in agreement with the Ministry of Science, Technology and Innovation, the Ministry of Fisheries and Aquaculture, and the Ministry of Development, Industry, Trade and Services, and other relevant bodies, respecting their specific responsibilities.

Sole Paragraph. The action plan referred to in the *caput* shall be launched within ninety days from the date of publication of this Decree.

- **Art. 9.** The monitoring of the **ENOP** implementation shall occur within the scope of the National Environment Council.
- § 1. The monitoring of the ENOP implementation actions related to the transition to sustainable models of production, commercialization, and use of plastic products and the promotion of circularity shall be carried out within the scope of the National Circular Economy Forum.
- § 2 Federal Government actions for the implementation of the ENOP related to marine pollution shall be incorporated into the Federal Action Plan for the Coastal Zone PAF-ZC, within the scope of the Interministerial Commission for Marine Resources CIRM.



Art. 10. The Ministry of the Environment and Climate Change shall be responsible for:

- I monitoring and coordinating the ENOP, in coordination with other competent bodies;
- II identifying funding sources for the implementation of the ENOP;
- III aligning the ENOP's lines of action with the bodies and entities of the National Environment System and with other government policies within its competence; and
- IV adopting procedures for the implementation of the ENOP within its affiliated institutions.

Art. 11. The Ministry of Science, Technology, and Innovation shall be responsible for:

- I formulating and implementing science, technology, and innovation policies for the prevention, reduction, and elimination of plastic pollution in the ocean based on the ENOP;
- II promoting the integration of scientific research, technological development, and innovation efforts regarding the prevention, reduction, and elimination of pollution by plastic and its byproducts, particularly in the coastal-marine environment;
- III defining research priorities in knowledge areas related to the actions carried out within the scope of the ENOP;
- IV coordinating and integrating research, technological development, and innovation initiatives related to the prevention, reduction, and elimination of plastic pollution, based on the ENOP;
- V promoting studies for the development of technologies and products that may provide new solutions for the prevention, reduction, and elimination of plastic pollution; and
- VI promoting studies for the evaluation and improvement of standards related to scientific research, technological development, and innovation for addressing plastic pollution.

Sole Paragraph. The Ministry of Science, Technology, and Innovation shall select, based on prospective scenarios, the research units, affiliated institutions, and advisory committees most suitable for the implementation of the ENOP.

Art. 12. The Ministry of Fisheries and Aquaculture shall be responsible for:

I - proposing and evaluating policies, programs, and actions for the prevention and

reduction of plastic pollution originating from fisheries, based on the ENOP, for the sustainable development of fishing activities and to strengthen the supply chain;

II - promoting the integration of the theme of prevention and reduction of plastic pollution from fisheries, based on the ENOP, in fisheries management forums and other participatory spaces;

III - fostering associations, cooperativism, and the circularity of plastic materials originating from the fisheries supply chain, to promote the conservation and sustainable use of biodiversity and the protection of artisanal fishing communities and territories; and

IV - proposing and implementing compensatory mechanisms for fishers, shellfish gatherers, vessel owners, and industries involved in the fisheries supply chain, for the collection, destination, and environmentally sound final disposal of plastic waste.

Art. 13. The Ministry of Development, Industry, Trade, and Services shall be responsible for:

I - formulating, within the scope of the ENOP, actions for the transition of the plastic supply chain toward the production and commercialization of products with lower polluting potential and for the promotion of environmentally preferable alternatives;

II - proposing, in coordination with the relevant agencies, the improvement of legislation and regulations related to the plastics production cycle, aiming at the development, production, commercialization, and use of safe and environmentally sound alternatives, and fostering solutions and innovations that favor the circularity of these products;

III - promoting dialogue with the sectors of the plastic supply chain and its potential substitutes, with the objective of identifying and proposing models and solutions for the prevention and reduction of plastic pollution in the ocean;

IV-supporting the implementation of the ENOP, through the analysis and evaluation of the economic and technological viability of proposals for the prevention and reduction of plastic pollution in the ocean, considering production dynamics; and

V - encouraging the adoption of production processes that incorporate circularity principles from the design phase of plastic products, in line with the ENOP, in order to make them more durable and suitable for repair, reuse, refurbishment, remanufacturing, and recycling.



Art. 14. The financial resources required to implement the **ENOP** shall be derived from:

I - appropriations allocated in the Federal Budget to the Ministry of the Environment and Climate Change, the Ministry of Development, Industry, Trade, and Services, the Ministry of Science, Technology, and Innovation, and the Ministry of Fisheries and Aquaculture, and their respective affiliated institutions, which may be supplemented by the other involved bodies and institutions, subject to the commitment and payment limits established annually;

II - public and private funds; and

III - donations from the private sector, non-profit civil society organizations, and international funds.

Art. 15. The Ministries and other bodies and institutions involved may enter into technical cooperation agreements and partnerships with public and private, national and international, entities for the implementation of the ENOP.

Art. 16. This Decree shall enter into force on the date of its publication.

Brasília, October 1st, 2025; 204th year of Independence and 137th year of the Republic.

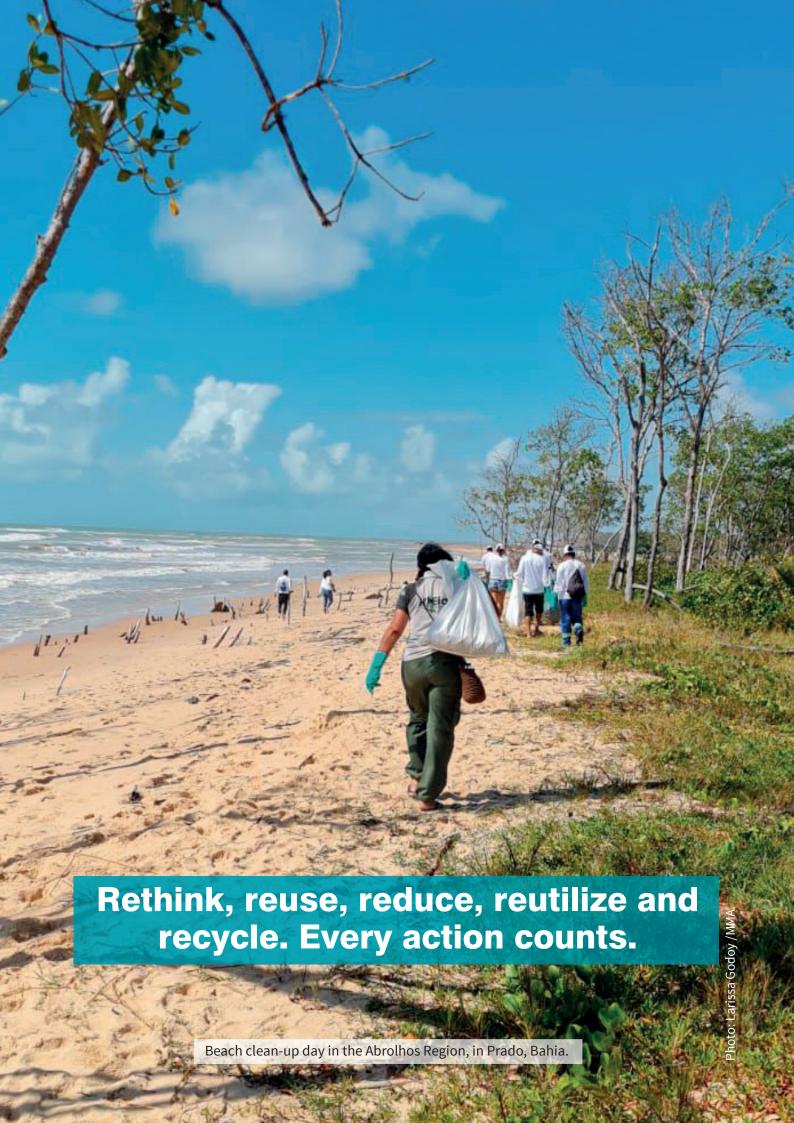
LUIZ INÁCIO LULA DA SILVA

Luciana Barbosa de Oliveira Santos Geraldo José Rodrigues Alckmin Filho João Paulo Ribeiro Capobianco

This text does not replace the one published in the Federal Gazette (DOU in Portuguese) of 10.1.25.







ANNEX

AXES OF IMPLEMENTATION OF THE NATIONAL STRATEGY FOR A PLASTIC-FREE OCEAN – ENOP



Axis 1 - Standardization and Regulation

Aims to propose norms, standards, and regulations for activities throughout the plastic life cycle, in order to improve the regulatory and institutional framework, which considers the conservation and sustainable use of the coastal and marine space, the promotion of the circular economy, and the protection of health and the environment.

Lines of action:

1. Improvement of legislation for:

- a) improvement of plastic product design, aiming at non-generation, reduction, reuse, and effective recyclability;
- b) transparency of information for consumers and users of plastic products and packaging;
- c) prohibition of the use of intentionally added microplastics in cosmetic and personal hygiene products;
- d) gradual replacement, aiming at the elimination of single-use plastics; and
- e) gradual replacement, aiming at the elimination of multilayer packaging with low recyclability;

2. Improvement of regulations:

- a) of public procurement, to encourage the use of reusable and returnable materials in public bodies and entities;
- b) of financial mechanisms that support actions, projects, and initiatives for the prevention and control of plastic pollution; and
- c) of the shared responsibility of the sectors responsible for the life cycle of plastic products; and

3. Establishment or improvement of specific standards for:

- a) management of plastic waste on vessels and in port facilities, and addressing improper disposal at sea and in continental water bodies;
- b) gradual decrease in the use of single-use plastic, aiming at its elimination, and

promotion of the use of reusable materials in sports, cultural, or music events held on marine, river, and lake shores and other natural environments, in conservation units and other protected areas;

- c) establishment of plastic-freezones in Conservation Units and other environmentally protected areas; and
- d) marking, tracking, signaling, positioning, notification, and recovery of discarded, abandoned, and lost fishing gear, considering the specific characteristics of different types of fisheries.



Axis 2 - Prevention and Circularity

Aims to encourage the implementation of measures to reduce the generation of plastic waste, through the adoption of the circularity principle.

Lines of action:

1. Establishment of criteria for:

- a) refinement and improvement of the design of plastic materials and packaging; and
- b) evaluation and certification of plastic products and packaging marketed as effectively recyclable, compostable, or biodegradable;

2. Establishment of policies and targets for:

- a) increasing plastic recycling and the consequent use of recycled content in the manufacture of new items;
- b) expanding the installed capacity or efficiency of recycling and composting infrastructure;
- c) social and productive inclusion of waste pickers, recognizing and valuing their socio-environmental role to foster the circular economy and address marine and coastal plastic pollution; and
- d) gradual reduction of the use of single-use plastics;

3. Identification and accountability of major waste generators for the improper disposal of plastic waste;

- 4. Identification, development, and implementation of wastewater control and treatment technologies to prevent or reduce the release of microplastics into water bodies and the sea;
- 5. Promotion of the integration of public policies to ensure that actions to reduce plastic pollution in the ocean are incorporated into policies of strategic sectors such as the cosmetics, textile, port, tourism, and fishery industries, among others;
- 6. Inclusion of actions for the prevention, reduction, and elimination of plastic pollution in the sea and coastal zone in other public policies; and
- 7. Development of a best practices manual for plastic waste management, considering the solid waste management hierarchy.



Axis 3 - Removal and Remediation

Aims to encourage the implementation of actions for waste removal and the cleanup of affected ecosystems, and for the recovery of coastal and marine areas degraded by plastic pollution.

Lines of action:

- 1. Mapping of priority areas for the removal and remediation of the environmental impact caused by plastic waste in the sea and coastal zone:
- 2. Improvement of removal and remediation technologies adapted to different habitats and environmental conditions:
- 3. Installation of collection nets in stormwater systems and eco-barriers in watercourses for the collection of quantitative and qualitative data on the type and amount of waste captured:
- 4. Development and dissemination of scientifically based best-practice protocols in plastic waste removal; and

5. Identification and proposal of actions to foster research, innovation, and the development of solutions for the removal and environmentally sound disposal of plastics removed from the ocean.



Axis 4 - Environmental Education and Public Awareness

Aims to disseminate knowledge and raise public awareness about the environmental, social, economic, and human health impacts of plastic waste to promote behavioral change and create conditions for the implementation of the other axes.

Lines of action:

1. Environmental Education:

- a) conducting formal and non-formal environmental education activities on the effects of plastic pollution on the environment;
- b) integrating the theme of plastic pollution and sustainability into school curricula, higher education courses, and technical and vocational training;
- c) integrating the theme of plastic pollution from fisheries and circularity into fisheries management forums and other participatory spaces;
- d) adapting educational content on plastic pollution, through the development of comprehensive and inclusive approaches for different audiences and social realities, considering the principles of Ocean Literacy and the National Environmental Education Policy;
- e) including the theme of plastic pollution in the Pedagogical Political Project for the Coastal and Marine Zone;
- f) conducting, as part of practical environmental education activities, cleanup campaigns on beaches, rivers, mangroves, islands, lakes, at sea, and other natural environments; and
- g) integrating and including the theme of plastic pollution and its impacts on Antarctic conservation in educational materials and awareness-raising actions; and

2. Public Awareness:

a) creating volunteer programs in public and private institutions for removal of waste from beaches, rivers, mangroves, islands, lakes, the sea, and other natural environments;

- b) increasing dissemination through mass media about the effects of plastic pollution on the environment, and the relationship between plastic pollution and climate change;
- c) prioritizing target audiences, including educators, students, waste pickers, fishers, coastal and riverine populations, users and professionals of water transport, and divers, regarding the prevention, reduction, and removal of plastic from the environment, circularity in waste management, the impacts of marine litter, and possible and most sustainable solutions;
- d) encouraging the establishment of forums, networks, and other collectives that promote artistic, cultural, and educational activities and the sharing of best practices regarding the urgency and necessity of combating plastic pollution in the environment, particularly in the ocean;
- e) identifying and disseminating best practices to prevent the abandonment, loss, or improper disposal of cargo, equipment, accessories, and any type of fishing gear or navigation support equipment at sea;
- f) adopting social communication technologies to guide the public on the reduction, generation, and proper disposal of plastic waste locally and at major artistic, sports, and nautical events, and on urban solid waste collection points; and
- g) evaluating and implementing mechanisms for receiving reports, including anonymous ones, against the illegal dumping of plastic waste from vessels at sea and in continental water bodies.



Axis 5 - Science, Technology, and Innovation

Aims to encourage research and the implementation of innovative solutions to address the challenges related to plastic waste in the ocean, across all stages of its life cycle.

Lines of action:

1. Technological development:

- a) of alternatives to replace single-use plastics, including improving product design for reuse and recycling;
- b) for utilizing plastic collected from coastal and marine environments;
- c) of innovative solutions for prevention, removal, and remediation, adapted to different habitats and environmental conditions, that minimize or prevent the impacts and dispersion of plastics and microplastics in the environment;

- d) of geolocation systems integrated with waste monitoring applications;
- e) of alternatives for preventing the loss, abandonment, or disposal of fishing gear and accessories;
- f) of compostable packaging, considering durability, environmental impact, and performance under different usage conditions; and
- g) for identifying, characterizing, and quantifying the types of plastics used across the value chain, including production, consumption, recycling, and plastic waste generation;

2. Science and Innovation:

- a) establishment of networks of researchers and laboratories dedicated to studies on the production, use, consumption, reuse, recycling, substitution, and impacts of plastics on the environment and human health;
- b) assessment of the effects of plastic on human health, the environment, and the economy, generating data, information, recommendations to inform public policies, and the adoption of lower-impact environmental measures;
- c) promotion of citizen science programs to contribute to the monitoring of plastic pollution in the sea;
- d) conducting research and studies to assess the presence of microplastics in fishery products;
- e) fostering research on the impacts of plastic pollution in polar regions, its sources, and its effects on biodiversity, ecosystems, and climate change; and
- f) expanding international cooperation for the exchange of data, methodologies, and technologies related to addressing plastic pollution, including in polar regions.

Axis 6 - Capacity Building and Technical Assistance

Aims to develop competencies, skills, and attitudes to strengthen institutional capacity for the implementation of programs, plans, and public policies to address plastic pollution.

Lines of action:

1. Capacity Building:

a) for waste pickers of recyclable and reusable materials;

- b) for members of municipal consortia, cooperatives, and multipliers regarding access to financing and implementation of solid waste management plans and the structuring of selective collection;
- c) for representatives of the public and private sectors to participate in national and international forums for developing public policies to address plastic pollution and its effects on the environment and human health;
- d) for artisanal fishers, shellfish gatherers, vessel owners, and industries involved in the fisheries supply chain; and
- e) in fishing communities and territories;
- 2. Technical assistance for state and municipal public managers, members of consortia, cooperatives, public policy councils, associations, and multipliers for the implementation of projects, policies, and action plans to address plastic pollution in the ocean, solid waste management plans, and the structuring of selective collection.



Axis 7 - Assessment, Monitoring, and Evaluation

Aims to encourage the implementation of programs for assessment, monitoring, and evaluation of plastic pollution, considering the different sources and the life cycle of products

Lines of action:

1. Assessment:

a) of plastic pollution in the Brazilian coastal and marine zone, and of the presence and impact of plastic waste in Antarctica;

2) Monitoring:

- a) development of science-based monitoring programs for plastic waste and microplastics, considering marine and terrestrial sources, the movement of waste in the coastal zone and at sea, and the identification of priority areas for removal and intervention;
- b) standardization of monitoring protocols for macro-, meso-, and micro-plastic waste in coastal-marine environments;

- c) implementation of the use of remote sensing for monitoring plastic in the ocean and coastal zone; and
- d) establishment of a national repository that consolidates data from various studies and institutions to support the monitoring of plastic pollution; and

3. Evaluation:

- a) of the toxicity and risks to health and the environment of returnable or reusable plastic packaging and packaging made from recycled plastic;
- b) of the impact and risk of plastic pollution on marine biodiversity, the health of workers in marine and coastal environments, and the resulting effects for incomegenerating activities and human health;
- c) of packaging claiming biodegradability, compostability, or both, considering durability and performance under different conditions of use and disposal, to ensure compliance with environmental and health safety standards; and
- d) preparation and dissemination of a national list of the most frequently found plastic waste in the environment, particularly in the coastal and marine zone.



Axis 8 - Promotion and Financing

Aims to indicate potential sources, models, and priorities for financing actions that contribute to the prevention, reduction, and control of plastic waste in the coastal and marine environment.

Lines of action:

1. Promotion:

- a) of projects and programs for payment for environmental services PES for waste pickers of recyclable and reusable materials;
- b) of the proposal of financial mechanisms to support actions, projects, and initiatives for the prevention and control of plastic pollution;
- c) for populations residing in conservation units and their surroundings who contribute to the removal and proper disposal of plastic waste in natural areas;
- d) for companies that use packaging made from materials proven to be less polluting;

- e) of projects and programs for payment for environmental services PES for artisanal fishers, shellfish gatherers, vessel owners, and industries involved in the fisheries supply chain, by rewarding the collection and proper disposal of plastic waste at sea;
- f) of cooperative arrangements, aiming at the professionalization, modernization, expansion, and efficiency of cooperatives and the entire recycling chain, and the improvement of working conditions for waste pickers of recyclable and reusable materials:
- g) of the installation of recycling facilities and production of recycled materials in coastal municipalities and communities;
- h) of the use of more sustainable alternatives, where possible, and discouraging the consumption of disposable plastic products;
- i) of research and development of solutions for the removal and proper disposal of plastics removed from the ocean;
- i) of the review of subsidies aiming at the gradual replacement of single-use plastics; and
- k) of studies on the use of tax mechanisms to discourage the consumption of singleuse plastics and to promote increased recycling and reuse; and

2. Financing:

- a) of programs and projects addressing plastic pollution in the coastal-marine environment;
- b) of research on the impacts of plastic pollution, including microplastics, on biodiversity, ecosystems, and human health; and
- c) for research, development and technological innovation aimed at preventing and combating plastic pollution.





Cover photos: 1 – Plastic waste found on the beach – MMA archive. 2 – Marine turtle caught in a fishing net – Centro Tamar/ICMBio.

























