

Format of the Position Paper

All Member States are invited to submit a concise position paper. The submissions may include the following elements:

1. Name of your organization

- Ministry of Environment and Natural Resources of México, SEMARNAT; include the National Institute of Ecology and Climate Change.

2. Your view on major barriers to combatting marine litter and microplastics

a) Presence and effect of marine litter and microplastics – Knowledge gaps

- Lack of an integral analysis considering sources of pollution in coastal watersheds (*source to sea* approach).
- Lack of complete and systematic analysis of the presence of marine debris and microplastics in rivers, river sheds, beaches and oceans, based on a standardized methodology.
- Lack of an integral and international analysis of the effect that marine litter produced in some countries can affect others.
- No regulations for packaging and packaging in different countries.
- Lack of a systematic monitoring, quantification and classification of the main types of microplastics (fibers, particles and beads) present in aquatic ecosystems
- Lack of knowledge about the effect of pollutants sorbed in microplastics on the tropic chains, including plankton, fish, birds and aquatic mammals.

b) Waste management deficiencies

- Lack of waste infrastructure and waste management programs in coastal environments.
- Responsibility of municipalities for the management of urban solid waste, without proper budget, infrastructure, trained personnel and sound end of life alternatives.
- Lack of tax incentives to foster the collection of main waste materials and its use on processes.

c) Organizational barriers

- Reduced coordination among authorities that regulate wastes management and sea/coastal protection.
- Analysis of marine debris and microplastics as a waste problem, without a basin approach.
- Lack of articulated networks for the research and monitoring of microplastics in coastal and marine ecosystems.

d) Educational and technological barriers

- Citizen consumption patterns, mainly excessive production and consumption of plastics products and packaging.
- Lack and/or few compostable and biodegradable materials with lesser environmental impacts.

3. Your view on potential national, regional and international response options and associated environmental, social and economic costs.

a) Presence and effect of marine litter and microplastics

- Development, implementation and evaluation of global, regional and national action plans, policies and diagnostics can make the environmental difference. It would require the development of collaboration agreements, protocols and definition of attributions among the different stakeholders related to the microplastic global problem.
- Development of studies identifying transport patterns and international flows or microplastics due to marine currents, weather conditions and human activities especially those affecting developing countries, would impact the fisheries and endangered species, with the consequences in the economic chain of the organizations of fishermen.

b) Waste management

- Development and reinforcement of articulated cleanup programs, through the development of guidelines, inventories and databases to coordinate the enforcement between the public and private sectors including extractive industries, transformation, distribution, consumption, recycling, and final disposition of products, can influence in the environmental awareness of the citizens.
- Development of programs to minimize the production of critical waste and optimize its management, including plastic bags, straws and packaging can build new productive chains.
- Coordination to strengthen institutional capacities and inter-institutional coordination of different ministries and programs related to this issue, can develop new relationships between subnational, national and regional social, business and government organizations.
- Develop a strategy with plastics makers, NGOs and other public and private sector actors to develop and pilot systemic interventions that will focus resources where they can have the most immediate and significant impact. Solutions to this important problem must include reduction, reuse, increased recycling, tough litter abatement laws, and well-run municipal waste management systems.

c) Organizational issues

This issue should consider the three pillars: economic. social and environmental to represent the change considering the social, public and private interests to make the required changes.

- Development and update of national laws to enforce the development of waste management programs.
- Development of coordinated regional regulation through regional organizations.
- Strengthen the development of qualified human resources: scientists, technicians, and authorities.
- Empowerment the social actors, environmental leaders and local NGO's.

d) Educational and technological frontiers

This issue should consider the three pillars: economic. social and environmental to represent the change considering the social, public and private interests to make the required changes.

- Citizens awareness campaigns about the impact of marine litter and relevant alternatives to the excessive consumption of plastics, through collaboration with NGOs, universities, public and private research centers and private social responsibility programs. An example is the Project with the Commission for Environmental Cooperation between Mexico, the United States of America and Canada, which includes the characterization of sea water between borders and the training of local scientists.
- Special Programs on Sustainable Production and Consumption. One of its objectives is to foster sustainable lifestyles that are supported on sustainable consumption patterns; education, formal and informal, is essential to sensitize consumers of their responsibility in waste production and their role in the integral waste management, specially, in the adequate separation of the different fluxes of materials and waste that can be used as inputs in other processes.

- Regulations, incentives and technologies to produce and promote alternative materials (compostable, biodegradable, recyclable).
- Development of a national regulatory framework for the prevention, monitoring and control of microplastics in coastal and aquatic ecosystems.

4. Your view on the feasibility and effectiveness of different response options.

a) Presence and effect of marine litter and microplastics

The **development of diagnostics, studies and management programs** at different scales can be feasible with the generation of synergies between countries, international organizations, civil society organizations and business organizations, focusing on the identification of impacts on human health through the introduction of microplastics to the food chain with the consequent detriment of the world's fishing activity due to the decrease in demand for products and by-products of the sea, as well as the impact of national economies and the consequent growth of social problems due to the depression of the economy in the fishing sector.

The **updating of national - and subnational - laws** should be an institutional process within each country, most likely with a watershed management approach, which will generate a new paradigm in the design and implementation of public policies that will demonstrate the administration and management of a locality in the upper part of the basins, and its impact on localities downstream, in their economies, public health, management of natural resources and conservation of biological diversity.

b) Waste management deficiencies

The promotion of business development for the **generation of technological alternatives** for the environmentally appropriate treatment of waste at sea and microplastics, for the prevention of the disposal of waste by anthropogenic activities in maritime zones, as well as for the prevention of disposal and dragging waste in terrestrial areas to bodies of surface water with access to the sea, could consider two aspects: the development of proprietary technologies in those countries that do not have them, and the transfer of technology, knowledge and training to countries with deficiencies in any of these aspects; both cases must be accompanied by financial alternatives with generation and return of capital to their places of origin.

d) Organizational modernization

The great challenge of humanity is evident from the highest mountain on the planet to the deepest pit of the oceans when there is the presence of plastic waste; as we all know, waste is an indicator of anthropogenic activities, both in quantity and composition.

The growth of the world population, puts face to reality to human societies in all countries, going from 5,300 million inhabitants in 1990, to 7,300 million in 2015, projecting to 9,700 million inhabitants in 2050 that will demand basic satisfiers, food, clothing and house.

The above, together with the increase in world gross domestic product and the purchasing power of most of the countries that have a growth trend, derive in the demand for greater goods, that are not necessarily basic satisfiers and that they have a diminishing less time.

If the organizations and institutions of the countries are not modernized to face the enormous challenge of waste management, an increase in the complexity of the solutions and the economic and financial resources required is seen, not to increase the amount of satisfiers and luxuries, simply to guarantee a contaminant-free environment for human populations, with food free of traces of chemical products and waste of microplastics.

Therefore, it is a priority to change the management approach of organizations, governments, businessmen and civil society, because although important changes and agreements have been reached worldwide, the reality in the deterioration of natural resources puts in clear evidence that pressure on resources and ecosystems is progressing more gradually to the response capacity of societies and their organizations. It is imperative and urgent to initiate the change required to preserve our resources, the environment and biodiversity, which are the basis for the development of our societies.

Programs can support the implementation of circular economy as a tool to support sustainable production practices and reduce the amount of industrial waste that goes to the sea, or to the landfill; together with the private sector, it has been carried out a workshop to analyze the Mexican approach towards circular economy and those barriers that slow down a better use of materials and by-products.

The programs look for better practices on activities associated to the tourism and building sectors that are responsible of wastes; together with other initiatives, such as voluntary regulation, certification of sustainable activities and capacities building. A National Environmental Audit Program can be implemented by national authorities of law enforcement, in Mexico the Federal Attorney for Environmental Protection (PROFEPA), has its Environmental Touristic Quality certification.

Other topics to update the environmental management of the plastic and microplastic wastes in the coastal and in the sea, are the programs to clean the border between the land and the sea, like “Clean Beaches”, that is a program that are included de civil society, businessmen, universities and the subnational and national environmental authorities; a temporal program is required to recover the health of the coastal marine ecosystem after the occurrence of a climatic phenomenon, operated by the national and subnational governments with the local population that is affected with this phenomenon, this is a good option to recover the economic dynamics when the people lost their belongings and they can't work either, since their places of employment have been destroyed.

A financing option could constitute a program of financial coordination between national and subnational governments for the concept of collection of rights of use of the coastal and maritime zones by private entities, where the resources are applied through the local environmental authorities, with the supervision of citizen participation committees that are the entities that decide in a percentage the application of economic resources and supervise, analyze and study their application, and provide feedback to the program for its continuous improvement.

Other international example would be the resolutions of regional organizations like the Forum of Ministers of Environment of Latin America and the Caribbean, where they have decided:

- Recognize the relevance of the ocean in the fight against climate change, both in its role as a sink for greenhouse gases and in the challenges of adapting to oceans, seas and marine resources, to the adverse consequences of climate change, such as acidification and the rise in sea level.
- Promote marine spatial planning as a technical instrument for the protection, conservation and sustainable development of regional marine species.
- Encourage regional and national efforts to reduce pollution from plastic debris and ghost fishing nets that affect the health of the oceans in the region.

c) Educational and technological changes

The **increase in public awareness** about the impact of people's practices will, by nature, be one of the processes where a time scale of several decades will be required to see positive results, therefore, it should be an effort anchored in the obligation from the legal framework of the countries, agreed upon by national or subnational congresses, to conduct this long-term policy, and scope.

5. Any other inputs

- Generation of specific instruments for financing and management.
- More financing options are required to implement response options.
- It is necessary to produce specific instruments for the funding and management of urban waste, marine debris and microplastics, as they present different characteristics.
- Preparation and dissemination of waste management guides based on existing specific instruments such as the Basel Convention, or organizations such as FAO and IMO.
- Creation of synergies with other initiatives such as the SDG, CBD, UNCCD, Basel Convention and SAICM.
- It is necessary to generate commitments from the states Parties for the allocation of resources to prepare studies, diagnose and identify subnational, national, regional and international impacts.
- Regulations, incentives, technologies, action plans are being developed all around the world and its effectiveness has been proved.
- Communication and awareness to the population.
- Development of safer materials easy to valorize or that can be degradable in short times.
- Enforcement of penalties when littering in the ocean or waterbodies.
- International cooperation for the preparation of national action plans for the elimination of waste islands in international waters, preventing the impacts of plastic and microplastics waste on flora and fauna species, especially on migratory species, and preventing the introduction of microplastics into the trophic chain to reduce the impacts on human health.

Acronyms

CBD: Convention on Biological Diversity.

FAO: Food and Agriculture Organization.

IMO: International Maritime Organization.

NGO's: Non-Governmental Organizations.

PROFEPA: Federal Attorney for Environmental Protection of Mexico.

SAICM: Strategic Approach to International Chemicals Management.

SDG: Sustainable Development Goals.

UNCCD: United Nations Convention to Combat Desertification.