Submission by Toxisphera and Fundação Esquel to the COP 30 Presidency Roadmap on the Transition Away from Fossil Fuels in a Just, Orderly and Equitable Manner

April 10, 2026

According to the letter from the COP 30 President, which invites Parties and observer organizations to submit contribution on two roadmaps associated with the Global Stocktake, the present submission focuses on submitting inputs to the Roadmap for Transitioning Away from Fossil Fuels in a Just, Orderly and Equitable Manner.

This submission focuses on a critical but often overlooked dimension of the fossil fuel economy: its non-energy and non-fuel use in the petrochemicals sector, which includes the production of plastics, synthetic fibers, fertilizers, and other chemicals produced from fossil feedstocks.

Petrochemicals are responsible for 14% of global oil[1], 8% of natural gas, and 1% of coal consumption with significant production increase projected for the upcoming years. This increase is expected due to the expansion of global petrochemical production capacity and a significant structural diversification of the energy mix.

The petrochemical sector use of oil almost doubled since 2000, accounting for around one-quarter of the total oil demand during that period, with plastics accounting for approximately 70% of the growth in oil usage within the petrochemical sector. And the petrochemicals is set to increase: according to current projections, the petrochemical use of oil will represent 30% of global oil demand in 2050[2].

With the current scenario, the petrochemical expansion may limit efforts to reduce climate impacts. Plastics production emits four times more greenhouse gases than the aviation sector, and 75% of emissions occur in early stages, from the extraction of fossil fuels to the production of plastic precursors[3].

However, the impacts of plastics occur across the whole life cycle, not only through the emission of greenhouse gases and their impacts on climate change, but also through biodiversity loss and pollution. As an example, more emissions can be released depending on the waste management infrastructure, and estimates indicate that 17% of plastic waste is

[1] Araceli Fernandez Pales, Peter Levi. The Future of Petrochemicals: Towards more sustainable plastics and fertilisers. Organisation for Economic Co-operation and Development & International Energy Agency. 2018. https://iea.blob.core.windows.net/assets/bee4ef3a8876-4566-98cf-7a130c013805/The_Future_of_Petrochemicals.pdf.

[2] BP PLC. BP Energy Outlook 2025. https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/energy-outlook/bp-energy-outlook-2025.pdf.

[3] Karali, N.; Khanna, N. & Shah, N. Climate Impacts of Primary Plastic Production. Lawrence Berkeley National Laboratory. 2024. https://eta-publications.lbl.gov/sites/default/files/climate_and_plastic_report_final.pdf

incinerated[4], releasing carcinogenic and reproductive toxic substances. And the growing production of chemicals also poses a risk, with 6 million tons of plastic additives were produced in 2018, and growth of 4% per year is expected[5]. And the lack of data aggregates an issue with these chemicals: 25% are considered of concern in terms of their impacts on the environment and human health, while 67% of these substances lack information on their impacts[6].

In a business-as-usual scenario, subsidies for plastics will reach USD 80 billion in 2024 and are projected to jump to USD 150 billion by 2050[7], exacerbating market distortions by keeping the costs of fossil-based products artificially low. This practice, lacking clear criteria or deadlines for reform, discourages investment in low-carbon options and perpetuates emission-intensive consumption patterns, creating barriers to the advancement of sustainable alternatives. The lack of transparency and standardized inventories obscures these financial flows, delaying the reallocation of resources toward a just transition aligned with the 1.5°C limit. In short, such taxpayer-funded incentives act as a fiscal barrier to urgent decarbonization.

Therefore, plastics and petrochemicals are not a secondary issue; they are a structural part of the fossil fuel chain with an expected increased demand on oil and gas as raw materials if no regulation is put in place. Under the UN's global plastics treaty, regulatory targets are being debated, such as an annual reduction of at least 3% in primary plastic production by 2050, equivalent to a 70% drop from 2019 levels, to align with the 1.5°C limit. Such proposals, however, do not address issues such as toxicity, human health, environmental justice.

It is recommended to adopt regulatory frameworks that cover the entire life cycle of plastics, from raw materials and additives through to the use, collection and disposal, with an emphasis on prevention, considering the waste hierarchy. Such instruments should incorporate mandatory reduction commitments, producer responsibility mechanisms, and recycling targets aligned with criteria for non-toxicity and health protection.

Among the measures that can be implemented, it is necessary setting caps on the production of plastics, the elimination of hazardous substances used in plastics; and the requirement of design criteria that discourage single-use products and those that are difficult to recycle, and products with planned obsolescence.

It is equally important to intensify efforts to minimize emissions and releases of micro- and nanoplastics at all stages of the supply chain, as well as to strengthen extended producer responsibility schemes that incorporate ambitious prevention and reuse targets, in addition to

[4] United Nations Environment Program. Beat Plastic Pollution Practical Guide. 2023. https://wedocs.unep.org/rest/api/core/bitstreams/ba70686e-fa21-494a-9f63-ac0c243b4f52/content.
[5] IHS Markit. Plastics Additives. 2017.
[6] WAGNER, M. et al. State of the science on plastic chemicals - Identifying and addressing chemicals and polymers of concern. 2024. https://zenodo.org/records/10701706.
[7] Plastic money: Turning off the subsidies tap – Phase 3. 2025. https://eunomia.eco/reports/plastic-money-turning-off-the-subsidies-tap-phase-3/.

ensuring decent working conditions for waste pickers and recycling cooperatives. Legal, financial, and infrastructure instruments should incentivize safe and sustainable alternatives, including materials not derived from fossil fuels, non-plastic options where appropriate, material agnostic non-toxic reuse systems and must not fund technologies that have proven to cause harm to human health and the environment, such as incineration.

The link between plastics and climate change poses a systemic problem on a global scale that demands coordinated and holistic action. It is clear that climate goals will not be achieved if the use of fossil fuels merely shifts from energy generation to the petrochemical sector. Under current conditions, the expansion of this industrial sector poses a fundamental obstacle to moving beyond a society reliant on fossil fuels.

The road map must have coherence with UNEA - United Nations Environment Assembly (UNEA-5.2) Resolution 5/14, adopted in 2022, on the international negotiation of a legally binding global treaty on this issue. Based on this resolution, the Intergovernmental Negotiating Committee (INC) then established has the mandate to develop “the instrument” (treaty) grounded “in a comprehensive approach that addresses the entire life cycle of plastics, including their production, design, and disposal.” The entire life cycle of plastics has enormous linkages with use of fossil fuels and emissions of greenhouse gases.

About the proposing institutions:

AssociaçãoToxisphera de Saúde Ambiental

Toxisphera Associação de Saúde Ambiental (Toxisphere Environmental Health Association) is a Brazilian non-profit civil society organization established in 2010. Our main objective is to promote transparency, participation, and the implementation of public policies and multilateral agreements that have impacts on human health and the environment. We work to empower and mobilize social groups, as well as promote participatory approaches and appropriate measures to ensure environmental sustainability in development, stressing science as the basis for the environmentally responsible management of chemicals and their waste. We also strive to conserve and restore an ecologically balanced environment.

With the mission of promoting healthy and balanced environments, we seek greater inclusive engagement of various sectors, such as trade unions, environmental and human rights advocates, technical and legal experts, as well as scientists.

Toxisphera has partnerships and belongs to several networks and alliances, both globally, such as IPEN, GAIA, ZMWG, CLiC, and Break Free From Plastic (BFFP), and in Brazil, as a member of FBOMS – Brazilian Forum of NGOs and Social Movements for Development and the Environment, RBJA – Brazilian Network for Environmental Justice, FONASCH, Coalition for Life without Plastics, and other social initiatives and related networks.

https://toxisphera.org/sobre-nos/

Esquel Group Brazil Foundation

The Esquel Group Brazil Foundation, formally established in 1989, works with the mission of supporting and developing solutions for a new society that is fully democratic, supportive, and socio-environmentally sustainable, producing and disseminating knowledge and strategic information, offering technical and political cooperation to the work of civil society organizations and community projects with innovative social technologies.

The work of the Esquel Foundation is organized around three main themes on national and global scales: (1) socio-environmental issues, addressing the fight against desertification, climate change, governance, and policy integration in the environment; (2) socioeconomic issues, with a focus on fighting poverty; and (3) greater participation by organized civil society in promoting sustainable development in all its dimensions: socio-environmental, socioeconomic, political, and human rights advocacy.

The Esquel Foundation's program in the area of environmental sustainability includes activities and objectives aimed at addressing environmental crises—climate change, pollution, desertification, and biodiversity loss—while upholding the values of human rights and social justice, through advocacy on

public policy, engagement with civil society organizations, and the implementation of targeted projects. The Esquel Foundation, a member of the Coordination of FBOMS—the Brazilian Forum of Organizations and Social Movements for the Environment and Sustainable Development—participates in various spaces and forums for policy advocacy in the field of addressing climate change and biodiversity loss and represents FBOMS at CONAMA. Esquel plays a prominent role in the Escazú Brazil Movement and its Steering Committee, working to mobilize support for the adoption, dissemination, and implementation of the Escazú Agreement. Esquel works to combat environmental pollution, and since 2023 has been one of three civil society organizations—in the environmental sector—elected to serve on CONASQ (the National Commission on Chemical Safety) for the term from March 2024 to March 2026.

https://esquel.org.br/