

Dear COP30 Presidency,

We welcome the efforts of the COP30 Presidency to develop a Roadmap for Transitioning Away from Fossil Fuels in a Just, Orderly, and Equitable Manner. We would like to highlight that effective and meaningful climate action goes beyond energy production. Therefore, a roadmap for transitioning away from fossil fuels cannot be limited to energy: it must also include products derived from fossil-based feedstocks, such as plastics, fertilizers, and chemicals.

The Global Resources Outlook (2024)<sup>[1]</sup> report highlights that the continued increase in resource extraction and processing (fossil fuels, mining, and biomass) is the main driver of the triple planetary crisis. The report emphasizes that the energy transition, while welcome and necessary, will not by itself create a less wasteful and more equitable world. Achieving that will also require redefining how we extract resources and use materials, including fossil fuels.

The BP Energy Outlook (2025)<sup>[2]</sup> report states that oil use for petrochemical production almost doubled from 8 million barrels per day (Mb/d) in 2000 to 14 Mb/d in 2023. According to the publication, this increase was driven primarily by the growth of plastic production, which more than doubled over the same period and has accounted for 70% of the rise in demand for petrochemical-use oil since 2000. If this growth trajectory continues, the report projects that oil use as a petrochemical feedstock could reach up to 23 Mb/d by 2050, representing as much as 30% of global oil demand.

As one of the main drivers of oil use as a feedstock over the past 30 years and projected to remain in this position for the next 30 years, it is essential to better understand the significant climate impacts of the plastics industry. It is important to underscore that more than 90% of plastics are derived from fossil fuels, which are used not only in polymer production, but also as chemical additives and in the generation of heat and energy throughout manufacturing. Researchers at the Lawrence Berkeley National Laboratory (2024)<sup>[3]</sup> conducted a study on greenhouse gas emissions from virgin plastic production and its climate impacts. The report indicates that plastic production emitted 2.24 billion tonnes of carbon dioxide (CO<sub>2</sub>) equivalent in 2019. For comparison, this is four times the emissions of the entire aviation sector in the same year. Without regulation, virgin plastic production could triple by 2050, generating cumulative emissions of 126.6 billion tonnes of CO<sub>2</sub> equivalent between 2019 and 2050.

Additionally, it is important to remember that the climate impacts of plastics extend beyond greenhouse gas emissions. Research<sup>[4,5,6]</sup> shows the negative effects of plastic pollution (including micro- and nanoplastics) on oceanic carbon uptake and on the balance of solar radiation absorbed and emitted by the Earth's surface. Moreover, plastic pollution has a range of global implications for both human health and the environment, while jeopardizing conservation efforts and life on Earth. Thus, the plastics-climate nexus emerges as a vicious cycle of global concern that requires coordinated, integrated efforts.

It is therefore clear that climate goals will not be met if fossil fuel use merely shifts from energy production to the petrochemical sector. As it stands, the growing petrochemical sector remains a critical barrier to the transition away from a fossil fuel-based society.

However, the excessive production of these materials, especially plastics, remains underexplored in global climate discussions. As a way forward, Member States could be encouraged to include plastic-related measures in their National Determined Contributions (NDCs) and other national climate strategies and targets for net-zero emissions.

Furthermore, as potential levers to accelerate the implementation of the transitioning away commitment, we recommend establishing more robust regulation across the entire plastics life cycle (from production to disposal and reintegration into the value chain). Measures that help to promote circularity are particularly important in contributing to a more rational and efficient use of plastics and fossil fuels. Examples include - but are not limited to: capping primary plastics production, regulating chemicals and substances of concern used in plastics, improving plastic product design as to discourage the single-use and low recyclability plastic products, as well as minimizing releases and leakages of micro- and nanoplastics, developing Extended Producer Responsibility schemes, increasing recycling rates with the participation of cooperatives and waste pickers, and providing incentives (legal, financial, infrastructural) to safe and sustainable non-fossil fuel-based plastics, non-plastic alternative materials, and reuse systems.

At this moment, the world has a historic opportunity to address this gap between plastics and climate and to include the reduction of fossil fuels used as feedstock in the Roadmap toward a more sustainable, just, and healthy future. We respectfully urge that this historic opportunity be seized and this issue formally included as one of the Roadmap topics and properly addressed in its development.

## References:

[1] Global Resources Outlook 2024.

<https://www.resourcepanel.org/reports/global-resources-outlook-2024>

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<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. (2024). Climate Impacts of Primary Plastic Production. *Lawrence Berkeley National Laboratory*.

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[4] Cousins, A., Fenner, N., Aberg, D., & Dunn, C. (2025). The combined effects of ocean warming and microplastic pollution on marine phytoplankton community dynamics. *Marine Pollution Bulletin*, 219, 118286. <https://doi.org/10.1016/j.marpolbul.2025.118286>

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