

# Make polluters pay

## How to tax excessive ecological footprints

Briefing Paper • February 2024

By Markus Trilling

The destruction of nature because of air, water and soil pollution, the loss of biodiversity and climate change is putting people's health and wellbeing at risk. Increasing inequality within and between countries worldwide is further affecting development opportunities for both current and future generations. Progressive environmental taxation can help to tackle these challenges by making the polluters pay. This paper introduces the concept of Excessive Ecological Footprint Taxation.

### Nature in distress, but polluting is free

Europe is persistently destroying the natural environment, causing continued biodiversity loss, ecosystem destruction and climate change. Pollution is affecting water, air and soil both on the continent and globally. Furthermore, Europeans consume more resources and contribute more to environmental degradation than most other world regions.<sup>1</sup>

While the European Union has made some progress towards its environmental targets, more is needed to stop the heating of the planet, restore nature and halt pollution. To do so requires a complete transformation of the economy, the way we grow our food, how we produce and consume goods, and how we move around and build our cities. Europe must simultaneously work to strengthen nature's resilience, restore destroyed ecosystems and adapt to the impacts of climate change.<sup>2</sup>

Failing to meet European Union (EU) environmental objectives, for example halting the loss of biodiversity, or putting a stop to water, air and soil pollution, will cost around €55 billion every year according to European Commission (EC) estimates, and this does not include the increasing costs of climate change.<sup>3</sup> The EU's fossil energy consumption alone leads to €340 billion in external costs, such as the impacts of emissions from power plants on health, ecosystems, agriculture, buildings and the climate. And only 10 per cent of these costs are passed on to producers through measures such as the EU Emissions Trading System (ETS) and carbon tax policies.<sup>4</sup>

### 'Polluter pays principle', missing in action

The investment needed to deliver on the EU's current 2030 climate and environmental policy goals amounts to €470 billion per year, according to the European Commission.<sup>5</sup> Proceeds from current environmental taxation alone will hardly satisfy the global financing and investment needs required for the social-ecological transformation. Revenues from environmental taxes remain marginal, accounting for only 5.5 per cent of total tax revenues in the EU,<sup>6</sup> while external costs of environmental degradation are not being internalised, minimising the potential of environmental taxation to contribute to climate and nature protection.

This stands in stark contrast to the 'polluter pays principle' which is enshrined in EU treaties,<sup>7</sup> and states that the polluter should bear the expenses of preventing environmental harm, respectively of the damage done. The European Court of Auditors has found that the polluter pays principle's coverage and application in the EU is fragmented and incomplete.<sup>8</sup>

**Box 1: Key examples of progressive green taxation**

- Green corporate taxes: Environmental taxes on corporate profits derived from resource extraction and exploitation rents (e.g. from fossil fuels, minerals mining, fisheries, agriculture, forestry, chemical industry, waste production and treatment; and related trade and transportation). This should include – but not be limited to – excess profit taxes on polluting industries.
- Taxes on private over-consumption: Taxes on ecological over-consumption of energy and resource-intensive luxury goods, services and habits (such as private aeroplanes and yachts or frequent flyers), including the removal of harmful incentives for their use.
- Green taxation of capital and wealth: Environmental taxes on capital gains and wealth from polluting activities and assets.
- Promotion of progressive green taxation as part of a global tax reform under a new UN Convention on International Tax Cooperation.

**Catalysts of environmental and social inequity**

The overuse and exploitation of natural resources has significant equity and social justice implications within Europe, as well globally between regions and countries. As income and ecological footprints are strongly positively correlated, the wealthy parts of society – in Europe as well as globally – tend to have ecological footprints which extend far beyond what the planet can cope with. Regarding individuals' carbon footprint, the top 10 per cent of the EU population have a higher emission share than the bottom 50 per cent. The top one per cent of the EU population also have a carbon footprint share as high as the bottom 18 per cent combined, which represents 6 per cent of total EU emissions.<sup>9</sup> This pattern of 'carbon inequality' is seen within all world regions, although inequalities in average per-capita emissions between world regions remain large. On a global scale, the top 10 per cent together are responsible for 48 per cent of global carbon emissions, with the North American top 10 per cent having the highest per-capita carbon footprint, followed by the wealthy top 10 per cent in East Asia, Russia & Central Asia, the Middle East and North Africa, and Europe.<sup>10</sup>

It is the vulnerable which suffer most from the impacts of climate change and nature destruction. Nearly 12,000 weather, climate and water-related disasters struck worldwide over the past five decades, causing trillions of euros in damage. More than 2 million people have been killed in such events, with 90 per cent of these deaths occurring in the global south.<sup>11</sup> Compared with wealthier nations, these countries have historically contributed little to the rise in greenhouse gas emissions while disproportionately suffering from the impacts of climate change.

**Carbon pricing alone doesn't do the trick**

Despite this situation, climate policies – and in particular carbon pricing – have been found to place a disproportionate burden on low-income and low-emitter groups, while the carbon price signal for high and wealthy emitters is too low to force changes in consumption or investment patterns among wealthy individuals. Carbon taxes have done little to address the vast inequalities in carbon footprints and may have exacerbated them in some countries.<sup>12</sup>

In this context the EU carbon tariff on certain imports to the EU – the EU Carbon Border Adjustment Mechanism (CBAM), a tax on the CO<sub>2</sub> emissions of products imported to the EU – is controversial<sup>13</sup>. This is because some developing countries and vulnerable economies might be more negatively impacted than developed countries, posing questions regarding the compatibility of CBAM with the UNFCCC's principles of Common but Differentiated Responsibilities and Respective Capabilities (CBDR/RC)<sup>14</sup>, which acknowledges that individual countries have different capabilities in addressing and responsibilities of causing climate change.

**Exploitation of global public goods**

Ecosystems are global public goods, and natural resources belong to society as a whole. The handling of these natural resources – and what is made from them on a global scale – determines the integrity of the planet's environment and, thus, concerns society as a whole. The industrial extraction of fossil fuels, minerals, raw materials, or agricultural commodities often generate extraordinary profits because production is based on a finite resource and oligopolistic market structures. At the same time, extraction and processing of natural resources accounts for more than 90 per cent of global biodiversity loss and water stress impacts, and approximately half of global greenhouse gas emissions.<sup>15</sup>

Taxation of the extractives sector often falls short of providing appropriate revenues for governments, not least due to numerous types of tax incentives, inadequate fiscal policies and a global tax system (including the transfer pricing system) that opens the door to large-scale aggressive tax planning by multinational corporations.<sup>16</sup> As a consequence, the tax system is failing to internalise the external costs that the extractive sector is causing to the environment and society.

### Progressive solutions – taxation of Excessive Ecological Footprints

Progressive environmental taxation is pivotal to making progress on the ecological transition, as well as on social and economic justice. The current tax systems continue to support the linear 'take-make-waste' economy, in which the throughput of products is maximised, and products become waste after a short life cycle. A tax system designed to reduce inequalities and to operationalise the 'polluter pays principle' can serve to internalise the external costs of nature destruction, promoting behavioural change, contributing to achieving environmental and social objectives, and catalysing the transition to socially just and environmentally sound economies. The revenues raised through environmental taxation – subject to equity assessments to avoid regressive impacts on societies – need to contribute to the still insufficient global mobilisation of finance for households and countries that need support to stem the social-ecological transition.

As such, green progressive taxation must set impactful impulses that catalyse the social-ecological transformation of our economies, by pricing and disincentivising environmentally harmful production and consumption. The EU and its Member States should introduce a system of progressive green taxes that target corporations and individuals with an excessive ecological footprint. Excessive ecological footprint taxes should operationalise the polluter pays principle to make over-consumers pay for their excessive use of natural resources as well as for any associated negative consequences (such as health and climate impacts) that would otherwise be passed on to individuals or society at large. These taxes should apply to corporations with the greatest environmentally harmful impact as well as to the wealthiest individuals, while also accounting for resource- and material-use, land- and water-use footprints, and greenhouse gas emissions.

This concept of Excessive Ecological Footprint taxation can be operationalised through a system of progressive green taxes that target wealthy individuals and the corporate overconsumption of natural resources and public environmental goods. The introduction of such a system of green progressive taxes should not preempt policy considerations regarding whether certain types of highly polluting activities should be prohibited. But to the extent that they continue to take place they should – at the very least – be taxed appropriately.

Making polluters pay progressive environmental taxes means pricing in the external costs of large-scale environmental degradation. This will impact production and consumption patterns and make a crucial contribution to the environmental policy mix. By mobilising and redistributing these financial resources, Excessive Ecological Footprint Taxes can boost the socio-ecological transition of global economies.

### Endnotes

- 1 "Country Overshoot Days 2023." Earth Overshoot Day, 11 January 2024. <https://www.overshootday.org/newsroom/country-overshoot-days>.
- 2 "State of Europe's Environment." European Environment Agency home page, 4 December 2019. <https://www.eea.europa.eu/en/topics/at-a-glance/state-of-europes-environment>.
- 3 "Environmental Implementation Review." Environment, 22 November 2022. [https://environment.ec.europa.eu/law-and-governance/environmental-implementation-review\\_en](https://environment.ec.europa.eu/law-and-governance/environmental-implementation-review_en).
- 4 "Study on Energy Costs, Taxes and the Impact of Government Interventions on Investments in the Energy Sector." Trinomics, 24 November 2020. [https://trinomics.eu/project/1204-study\\_energy\\_costs\\_taxes\\_and\\_impact\\_of\\_government\\_interventions\\_2019](https://trinomics.eu/project/1204-study_energy_costs_taxes_and_impact_of_government_interventions_2019).
- 5 Working paper. Identifying Europe's Recovery Needs. European Commission, 27 May 2020. [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0098\(01\)&qid=1591607109918&from=IT](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0098(01)&qid=1591607109918&from=IT).
- 6 European Commission, Directorate-General for Taxation and Customs Union, Annual report on taxation 2023 : review of taxation policies in the European Union, Publications Office of the European Union, 2023, <https://data.europa.eu/doi/10.2778/982557>.
- 7 Official journal of the European Union Information and notices, No. C202 (6 February 2021). <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:2016:202:FULL>.
- 8 "The Polluter Pays Principle: Inconsistent Application across EU Environmental Policies and Actions." Special report: Making the polluters pay. Accessed 16 January 2024. <https://op.europa.eu/webpub/eca/special-reports/polluter-pays-principle-12-2021/en>.
- 9 Ivanova, Diana, and Richard Wood. "The Unequal Distribution of Household Carbon Footprints in Europe and Its Link to Sustainability: Global Sustainability." Cambridge Core, 6 July 2020. <https://www.cambridge.org/core/journals/global-sustainability/article/unequal-distribution-of-household-carbon-footprints-in-europe-and-its-link-to-sustainability/F1ED4F705F1C6C1FCAD477398353DC2>.
- 10 Chancel, Lucas. "Global Carbon Inequality over 1990–2019." Nature News, 29 September 2022. <https://www.nature.com/articles/s41893-022-00955-z>.
- 11 "Atlas of Mortality and Economic Losses from Weather, Climate and Water-Related Hazards (1970–2021)." World Meteorological Organization, 4 October 2023. <https://wmo.int/publication-series/atlas-of-mortality-and-economic-losses-from-weather-climate-and-water-related-hazards-1970-2021>.
- 12 Chancel "Global Carbon Inequality over 1990–2019."
- 13 Nalunga, Jane, Peninnah Mbabazi, and Kafeero Herbert. Carbon border adjustment mechanism (CBAM): Its implications on Africa-EU trade and on Africa's sustainable development, 11 September 2023. <https://seatiuganda.org/download/carbon-border-adjustment-mechanism-cbam-its-implications-on-africa-eu-trade-and-on-africas-sustainable-development>.
- 14 United Nations Framework Convention on Climate Change – UNFCCC, 1992. [https://unfccc.int/files/essential\\_background/background\\_publications\\_htmlpdf/application/pdf/con-veng.pdf](https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/con-veng.pdf).
- 15 United Nations Environment Program. "Why Does Extractives Matter?" UNEP. Accessed 16 January 2024. <https://www.unep.org/explore-topics/extractives/why-does-extractives-matter>.
- 16 Readhead, Alexandra, Alexandra Readhead, Viola Tarus, Thomas Lassourd, Ezera Madzivanyika, and Bernd Schlenther. "The Future of Resource Taxation: 10 Policy Ideas to Mobilize Mining Revenues." International Institute for Sustainable Development, 23 June 2023. <https://www.iisd.org/publications/guide/future-of-resource-taxation>.

## Acknowledgements

---

Thanks to Saara Hietanen, Martina Neuwirth, Chiara Putaturo, Rachel Simon, Martin-Brehm Christensen and Tove Maria Ryding for their invaluable contributions.

## Contact

---

Eurodad  
Rue d'Edimbourg 18-26  
1050 Brussels Belgium  
+32 (0) 2 894 4640  
[assistant@eurodad.org](mailto:assistant@eurodad.org)  
[www.eurodad.org](http://www.eurodad.org)