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# ENVIRONMENTAL PROTECTION GOALS AND SCOPE OF POLICIES IN THE EUROPEAN UNION BY 2030

**Abstract:** *Environmental protection is one of the key focuses of the European Union's activities, operating at various levels – from policy and legislation to financial investments. The European Green Deal, the EU's main environmental policy plan, aims for Europe to become the first climate-neutral continent by 2050. This involves reducing carbon dioxide emissions, transitioning to renewable energy sources, investing in green technology, strengthening environmental legislation, and more. The Eighth Environmental Action Program, adopted in alignment with the European Green Deal, provides the framework for EU environmental policy until 2030. It sets the priority goals for environmental protection until 2030 and the conditions necessary for their achievement. At the same time, it forms the basis for the European Union's contribution to achieving the United Nations Agenda for 2030 and its sustainable development goals. This paper analyzes six priority goals of the Eighth Environmental Action Program and the progress made toward achieving them, monitored through 26 indicators. The research results indicate that the European Union has successfully achieved some goals, but there are goals that require significantly greater efforts and resources to be fully realized.*

**Keywords:** Eighth Environmental Action Program, European Union, goals, results

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## INTRODUCTION

One of the key priorities in the overall policy framework of international organizations – particularly that of the European Union – is the protection of the environment (Ilić Petković, Ilić Krstić, & Jovanović, 2016). In line with this commitment, the European Union adopted the European Green Deal (2019), a document outlining its strategic plan and objectives in the field of environmental protection policy. The European Green Deal is the EU's main environmental policy plan, and it has its roots in a long-standing tradition of EU energy and climate legislation and policymaking (Agostini, 2024). It serves as an initial overarching framework for the Union's key environmental policies and measures, and all future EU activities and policies are expected to contribute to the realization of the objectives set forth in the European Green Deal. Recognizing that environmental degradation poses a serious threat not only to the European continent but also to the entire planet, the European Union has developed the European Green Deal with the aim of transforming the Union into a modern, resource-efficient, and competitive economy. The Deal seeks to ensure the following: no net emissions of greenhouse gases by 2050, economic growth decoupled from resource use, and that no person and no place is left behind (EU, 2025).

Based on the European Green Deal, the Eighth Environment Action Programme (2022) was adopted. This document establishes the framework for the European Union's environmental protection policy up to the year 2030. It defines the priority objectives of environmental policy for this period, as well as the necessary conditions for their achievement. At the same time, it serves as the foundation for the European Union's contribution to the implementation of the United Nations 2030 Agenda for Sustainable Development.

This paper analyzes the six priority objectives of the Eighth Environment Action Programme. It examines and assesses the progress achieved thus far in their implementation. The results are monitored using 26 indicators. The data obtained aim to indicate the extent to which the European Union has been successful in achieving the defined objectives, the obstacles encountered in the process, as well as the opportunities for enhancing the effectiveness of their implementation by the target year – 2030.

## OBJECTIVES OF THE EIGHTH ENVIRONMENT ACTION PROGRAMME

The Eighth Environment Action Programme (8th EAP) establishes a system of activities and measures aimed at implementing the European Green Deal. The European Commission is obligated to report annually to the European Parliament and the Council on the measures undertaken within the framework of the Programme and to outline potential future actions. The governance mechanism of the 8th EAP includes annual monitoring, evaluation, and reporting on the progress made toward achieving its six priority objectives, based on 26 key indicators. The long-term priority objective of the 8th EAP, as stated in the 8th EAP 2050 (2019), is: "By 2050 at the latest, people live well, within the planetary boundaries in a wellbeing economy where nothing is wasted, growth is regenerative, climate neutrality in the Union has been achieved and inequalities have been significantly reduced. A healthy environment underpins the wellbeing of all people and is an environment in which biodiversity is conserved, ecosystems thrive, and nature is protected and restored, leading to increased resilience to climate change, weather- and climate-related disasters and other environmental risks. The Union sets the pace for ensuring the prosperity of present and future generations globally, guided by intergenerational responsibility."

To support the achievement of the objectives set out in the 8th EAP, a set of indicators has been selected to measure long-term outcomes within the EU and its Member States. The chosen set of indicators corresponds to the structure of the Programme and comprises 26 indicators in total. Each specific priority objective is monitored using two indicators, except for biodiversity, which is assessed using three indicators. In addition, five indicators are used for monitoring environmental pressures, enabling conditions, and the long-term priority objective set for 2050.

## MONITORING RESULTS AND PROSPECTS FOR ACHIEVING THE OBJECTIVES BY 2030

According to the data from the European Environment Agency (EEA, 2025b), starting with the first indicator – Total net greenhouse gas emission trends and projections in Europe – net greenhouse gas (GHG) emissions in the EU-27 decreased by 31% between 1990 and 2022, including emissions from international transport as regulated by EU legislation. Preliminary estimates suggest a further record year-on-year reduction of 8% in 2023, representing significant progress toward achieving climate neutrality within the European Union. This downward trend in net GHG emissions reflects the gradual strengthening of policies aimed at reducing emissions over the past two decades. The overall decline can primarily be attributed to a transformation in energy production methods, most notably a significant decrease in coal use and a corresponding increase in the deployment of renewable energy sources. There has also been a modest reduction in overall energy consumption, alongside substantial decreases in emissions from certain industrial production processes (EEA, 2020).

The second indicator – Greenhouse gas emissions from land use, land use change, and forestry (LULUCF) in Europe – shows that LULUCF activities resulted in the net removal of 236 million tonnes of $CO_2$ equivalent (MtCO2e) from the atmosphere in 2022, equivalent to approximately 7% of the EU's total annual greenhouse gas emissions (EEA, 2025b). The LULUCF Regulation establishes an EU-wide net removal target of an additional 42 MtCO2e by 2030, relative to the 2016-2018 average. However, projections submitted by Member States indicate that this target will not be met. Even when accounting for planned additional measures, the projections foresee a decline in net removals compared to the 2016-2018 baseline. The 2024 update of the National Energy and Climate Plans is expected to help bridge the gap toward achieving this target.

The third indicator, Climate-related economic losses, reveals that weather- and climate-related extreme events caused economic losses of assets estimated at EUR 738 billion in the EU between 1980 and 2023, with over EUR 162 billion (22%) occurring between 2021 and 2023 (EEA, 2025a). Statistical analyses indicate that economic losses have increased over time, with the last three years ranking among the top five years with the highest annual economic losses. Given that severe weather- and climate-related extreme events are expected to intensify further, it appears unlikely that these economic losses will decrease by 2030. The future cost of climate-related hazards depends on the frequency and severity of events, as well as additional factors such as the value of exposed assets and the effectiveness of implemented climate adaptation measures (Bednar-Friedl et al., 2022; Ranasinghe et al., 2021).

Regarding the fourth indicator, Drought impact on ecosystems, the EEA's European Climate Risk Assessment identifies Europe as the fastest-warming continent globally. In 2023, the drought impact on European ecosystems lessened compared to the previous devastating year. The aggregated drought-affected area within the European Union amounted to 143,513 km², exceeding the long-term average drought impact for the 2000-2020 period (EEA, 2025a). If global mitigation efforts and EU and national adaptation strategies are not effectively implemented, drought impacts are projected to increase.

The fifth indicator is Europe's material footprint. The Programme aims to significantly reduce the EU's material footprint to preserve valuable natural resources and mitigate environmental impacts such as climate change and biodiversity loss (IRP, 2019). Between 2010 and 2022, the per capita material footprint remained stable, followed by a 4.5% decline in 2023 (EEA, 2025a). Based on historical trends, it appears unlikely that the EU will achieve a substantial

reduction in per capita material footprint over the next decade unless the decrease observed in 2023 continues. Considerable efforts are required to reduce raw material extraction and consumption by transitioning to goods and services with lower material intensity.

The sixth indicator is Waste generation, which has historically mirrored trends in economic growth. Although recent stability and some decoupling of waste generation from economic growth are encouraging, the latest data suggest that the correlation between economic growth and waste generation persists. Consequently, a substantial reduction in waste generation by 2030 remains unlikely.

The seventh indicator is Premature deaths due to exposure to fine particulate matter ($PM_{2.5}$) in Europe. The European Commission's Zero Pollution Action Plan sets a target to reduce the health impacts of air pollution by at least 55% by 2030, compared to 2005 levels. Between 2005 and 2022, the number of premature deaths in the EU attributable to $PM_{2.5}$ decreased by 45%. If this trend continues, the target is likely to be met and potentially exceeded.

The eighth indicator is Nitrate levels in groundwater in Europe. Despite legislative measures addressing nutrient pollution, the average nitrate concentration in groundwater across the European Union has remained largely unchanged between 2000 and 2022 (EEA, 2025a). At present, it appears unlikely that the current trend will be sufficient to meet EU regulatory obligations or achieve the goal of a 50% reduction in nutrient losses.

The next indicator is Terrestrial protected areas and marine protected areas in Europe's seas. By the end of 2022, protected areas covered 26.1% of EU land, with 18.6% designated as Natura 2000 sites and an additional 7.5% under other complementary national designations. The EU Biodiversity Strategy for 2030 sets a target of protecting at least 30% of EU land by 2030. However, it is currently uncertain whether this target will be achieved unless the rate of designation of protected areas more than doubles by 2030.

Regarding the indicator Marine protected areas in Europe's seas, the EU has made significant progress in designating new marine protected areas, both within the Natura 2000 network and through complementary national designations. As a result, the coverage of marine protected areas has more than doubled. Nevertheless, substantial efforts will be required to meet the EU Biodiversity Strategy target of protecting at least 30% of EU seas by 2030. At present, it appears unlikely that this target will be met.

The Common Bird Index in Europe is another biodiversity-related indicator. Long-term trends show that between 1990 and 2022, the index for 168 common bird species declined by 14% within the EU. The status of bird populations has been subject to extensive long-term monitoring in Europe, much of which has been conducted through voluntary efforts. This exemplifies how citizen science can be effectively harnessed through targeted approaches and clearly defined monitoring methods (Brlík et al., 2021). However, at present, it seems unlikely that the decline in common bird populations will be reversed by 2030.

The indicator Increasing forest connectivity is critical for supporting biodiversity. The EU's average forest connectivity was 80.6% in 2021, representing a 0.8% decrease since 2018. It is unlikely that forest connectivity will increase by 2030.

The indicator EU's primary energy consumption by end users showed a decline of 3.9% in 2023 compared to 2022, while final energy consumption decreased by 3.0% (EEA, 2025a). If the current rate of reduction persists, the EU is on track to meet its 2030 energy efficiency targets.

The next indicator, Circular Material Use Rate (CMUR) in Europe, reflects the EU's ambition to double the use of recycled materials, measured as a share of the economy's total material use, between 2020 and 2030, as outlined in the 2020 Circular Economy Action Plan. Although the CMUR has increased slightly over the past thirteen years – from 10.7% in 2010 to 11.8% in 2023 – it remains relatively low, indicating that the economy largely continues to follow a linear model (Eurostat, 2018).

The share of buses and trains in inland passenger transport in Europe serves as an indicator for the promotion of sustainable transport modes such as public transportation. Since 2005, the share of buses and trains in total passenger transport has remained relatively stable at around 17%. However, this figure sharply declined to 13% in 2020 due to COVID-19 pandemic-related travel restrictions and changes in mobility behaviour (Lozzi et al., 2022), followed by a gradual recovery during 2021 and 2022. The final indicator, agricultural area under organic farming in Europe, shows that the share of the EU's organically managed agricultural land increased from 5.9% in 2012 to 10.5% in 2022. This growth is driven by rising demand for organic products and supportive policy measures. Despite expectations for continued increases, current policies alone are insufficient to achieve the established targets for organic farming expansion.

The indicator Share of environmental taxes in total tax revenues in Europe reveals that, despite the critical role of environmental taxation in facilitating the transition to a greener economy, the share of environmental taxes within total revenues from taxes and social contributions in the EU declined from 6.0% in 2010 to 4.8% in 2022 (EEA, 2025a).

The next indicator, Fossil fuel subsidies in Europe, highlights that the Programme calls for an immediate phase-out of fossil fuel subsidies. These subsidies remained stable between 2015 and 2021. Although a significant portion of fossil fuel subsidies is scheduled to be eliminated by 2030, much of this reduction is associated with temporary crisis-related measures. Consequently, the EU is unlikely to make substantial progress in phasing out fossil fuel subsidies by 2030.

The indicator Environmental protection expenditure demonstrates that increasing spending on environment-

and climate-related activities can support the objectives of the European Green Deal. Such expenditures primarily cover efforts to reduce air, water, soil, and noise pollution, protect biodiversity, manage wastewater and waste, and support environmental research and development. Between 2018 and 2023, environmental protection expenditure in the EU increased from EUR 280 billion to EUR 357 billion. This figure is expected to continue rising as additional funding becomes available.

Green bonds in Europe, which finance projects addressing climate change and environmental issues, constitute the twentieth indicator. Green bonds accounted for only 0.3% of all bonds issued by corporations and governments in the EU in 2014. This share increased to 9.2% in 2022 but then declined to 6.8% in 2023. Despite this fluctuation, issuances of green bonds are expected to grow in alignment with the ambitious environmental and climate goals outlined in the European Green Deal.

The final indicator, the Eco-innovation Index in Europe, shows a 27.5% increase from 2014 to 2024, largely driven by improvements in resource efficiency. This steady upward trend is anticipated to continue, supported by the ambitious environment- and climate-related objectives set forth by the European Green Deal.

The final group of indicators pertains to the concept of living well within planetary boundaries and comprises five indicators. The first indicator, Net land take in cities and commuting zones in Europe, highlights that land conversion to artificial surfaces impairs ecological functions and reduces ecosystem resilience. Between 2012 and 2018, the annual net land take in these zones within the EU was 450 km². To achieve the EU's target of "no-net-land take by 2050," significant reductions in net land take are required in the coming years, which currently appears uncertain and challenging. The next indicator, Water scarcity conditions in Europe, shows that although water abstraction in the EU declined by 19% between 2000 and 2022, there has been no overall decrease in the area affected by water scarcity. In fact, the situation has worsened since 2010 (EEA, 2025a). This is further compounded by the expectation that climate change will increase the frequency, intensity, and impacts of drought events, rendering a reduction in water scarcity by 2030 somewhat unlikely. The Consumption footprint in Europe indicator reflects the EU's goal to significantly reduce its consumption footprint by 2030 and keep related environmental impacts within planetary boundaries. However, between 2010 and 2022, the EU's consumption footprint increased by approximately 8%, and projections indicate further growth by 2030, driven by economic growth and consumption patterns. Currently, the EU is not on track to sufficiently reduce its consumption footprint. The fourth indicator, Employment and gross added value of the environmental goods and services sector, increased from 2.1% of total employment in 2010 to 2.5% in 2021, with full-time equivalent employment in this sector reaching 5.2 million (EEA, 2025a). The sector's contribution to the EU economy, in terms of gross added value, also rose from 2.1% in 2010 to 2.5% in 2021, surpassing EUR 315 billion (in 2010 prices). The environmental goods and services sector is expected to constitute an increasing share of the EU economy in the coming years. The final indicator, Income-related environmental inequalities between regions associated with air pollution in Europe, uses $PM_{2.5}$ exposure as a reliable proxy for air pollution-related risk (Lim, S. S., et al., 2013). Despite improvements in air quality across both the wealthiest and the poorest EU regions between 2007 and 2021, disparities persist, with $PM_{2.5}$ concentrations consistently about one-third higher in the poorest regions.

*Table 1. Outlook of meeting the targets by 2030*

| **8th EAP indicators Monitoring targets** | **Outlook of meeting the targets by 2030** | | | |
|---|---|---|---|---|
| | It is very likely | It is likely but uncertain | It is unlikely but uncertain | It is very unlikely |
| Reduce net GHG emissions by at least 55% by 2030 from 1990 levels | | x | | |
| Increase net GHG removals by carbon sinks from the LULUCF sector to -310 million tonnes $CO_2$ equivalent by 2030 | | | | x |
| Reduce overall monetary losses from weather and climate-related events | | | x | |
| Decrease the area impacted by drought and loss of vegetation productivity | | | x | |
| Decrease the area impacted by drought and loss of vegetation productivity | | | x | |
| Significantly decrease the EU's material footprint, by reducing the amount of raw material needed to produce the products consumed in the EU | | | x | |
| Significantly reduce the total amount of waste generated by 2030 | | | x | |

| | | | | |
|---|---|---|---|---|
| Reduce premature deaths from air pollution by 55% (from 2005 levels) by 2030 | x | | | |
| Reduce nutrient losses by at least 50% in safe groundwater resources | | | x | |
| Legally protect at least 30% of the EU's land area by 2030 | | | x | |
| Legally protect at least 30% of the EU's sea area by 2030 | | | x | |
| Reverse the decline in populations of common birds | | | x | |
| Increase the degree of connectivity in forest ecosystems with a view to creating and integrating ecological corridors and increase climate change resilience | | | x | |
| Reduce by 2030 the primary and the final energy consumption levels to respectively 992.5 and 763 million tonnes of oil equivalent | | | | x |
| At least 42.5% of energy from renewable sources in gross final energy consumption by 2030 | | | x | |
| Double the ratio of circular material use by 2030 compared to 2020 | | | | x |
| Increase the share of collective transport modes (buses, coaches, and trains) | | | x | |
| 25% of EU agricultural land organically farmed by 2030 | | | | x |
| Increase the share of environmental taxes in total revenues from taxes and social contributions | x | | | |
| Reduce environmentally harmful subsidies, in particular fossil fuel subsidies, with a view to phasing them out without delay | | | x | |
| Increase spending by households, corporations, and governments on preventing, reducing and eliminating pollution and other environmental degradation | x | | | |
| Increase the issuance of green bonds to boost public and private financing for green investments | | x | | |
| Increasing eco-innovation as a driver for the green transition | x | | | |
| No net land take by 2050 | | | x | |
| Reduce water scarcity | | | x | |
| Significantly decrease the EU's consumption footprint, i.e. the environmental impact of consumption | | | | x |
| Increase the share of green employment in the whole economy | x | | | |
| Increase the share of the green economy in the whole economy | x | | | |
| Reduce environmental inequalities and ensure a fair transition | | | x | |

*Source: Authors*

Table 1 provides a clear and more comprehensive view of all the listed indicators and an assessment of the possibility of achieving the set goals to which the indicator relates within the stipulated time frame.

## CONCLUSION

It is an indisputable fact that the European Union sets numerous precise and ambitious targets in the field of environmental policy. This also applies to the goals established within the Eighth Environment Action Programme. This Programme defines 26 indicators to monitor the achievement of the specified objectives. These indicators can be grouped into eight categories, depending on the Programme's targets they relate to: climate change mitigation, climate change adaptation, a regenerative circular economy, zero pollution and a toxic-free environment, biodiversity and ecosystems, environmental and climate pressures related to EU production and consumption, enabling conditions, and living well within planetary boundaries (Luisa, 2025).

The results of the conducted research indicate that some indicators show a very high likelihood of achieving their respective targets by 2030, others suggest a moderate probability with some degree of uncertainty, while there are also indicators for which the likelihood of target achievement is very low (EEA, 2025b). For example, indicators such as premature deaths due to exposure to fine particulate matter, environmental protection expenditure, the eco-innovation index, employment in the environmental goods and services sector, and gross value added of the environmental goods and services sector demonstrate a high probability of target achievement. Indicators including greenhouse gas emissions, the share of environmental taxes in total tax revenues, and the share of green bonds in total issued bonds suggest a probability of achievement, albeit with some uncertainty.

A significant number of indicators fall into the category where there is a moderate probability of achieving the targets, but with a greater likelihood of failure. These include climate-related economic losses, drought impacts on ecosystems, raw material consumption, total waste generation, nitrates in groundwater, designated terrestrial protected areas, designated marine protected areas, the common bird index, forest connectivity, the share of renewable energy in gross final energy consumption, the share of buses and trains in inland passenger transport, fossil fuel subsidies, land take, the water exploitation index plus, and environmental inequalities. Finally, indicators such as greenhouse gas emissions from land use, land-use change and forestry, energy consumption, circular material use rate, area under organic farming, and consumption footprint indicate a high probability that the targets will not be met.

All of the above leads to the conclusion that, although the EU has set significant environmental policy targets for 2030, it remains uncertain whether most of these will be achieved within the given timeframe. Indeed, for the majority, the likelihood of failure is higher. However, the European Green Deal itself is designed to provide a strategic direction for the EU's environmental policy, emphasizing the importance of continuously striving toward the set goals. Therefore, even if not all targets are met by the deadline – and it is almost certain that some will not be – this should not be regarded as a failure. The very idea of the European Union setting such ambitious targets significantly contributes to establishing international standards in environmental protection (Jovašević, 2009), and their ambition should serve as a motivation for even more determined action by the EU and its member states in the direction of environmental protection.

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