

Environmental protection and climate change

Before we start talking about the situation of the EU with the environmental protection and climate change, we should know what these terms are. On one hand, according to Penn State, “environmental protection includes programs and services that are aimed at reducing risks to the environment from contaminants such as hazardous materials and wastes, fuels, and oils. These programs address pollution prevention measures and regulatory compliance by providing procedures for safely working with these materials, inspecting the storage vessels and locations, and designating preventative maintenance procedures”. On the other hand, according to United Nations, “Climate change refers to long-term shifts in temperatures and weather patterns. Such shifts can be natural, due to changes in the sun’s activity or large volcanic eruptions. But since the 1800s, human activities have been the main driver of climate change, primarily due to the burning of fossil fuels like coal, oil and gas.”

Nowadays, the climate change situation is becoming increasingly severe, marked by record temperatures and an intensification of extreme weather events. January 2025 was recorded as the warmest January on record, with global temperatures 1.75°C above pre-industrial averages, continuing the alarming trend of rising temperatures seen in 2024, the warmest year on record. These temperature spikes contribute to more frequent and severe weather events, such as heat waves, floods and wildfires, which are affecting ecosystems and communities around the world.

The environment is crucial to existence, as it provides natural resources and controls the climate, but human actions have led to pollution, deforestation and a decrease in biodiversity. Global warming, caused by greenhouse gas emissions, causes extreme events such as intense heat and flooding, impacting food security and water availability. Protecting the world through sustainable practices and reduced emissions is essential to ensure a balanced and secure future for generations to come.

Since its creation, the European Union has evolved in its commitment to environmental protection. In the 1970s, the EU began to develop its environmental policy with directives focused on air and water pollution. With the signing of the Maastricht Treaty in 1993, environmental protection became a fundamental objective of the EU. Subsequently, the Lisbon Treaty (2009) reinforced the EU's commitment to sustainable development and the fight against climate change. EU countries have made a legal commitment to combat climate change by moving to a climate-neutral economy with zero net greenhouse gas emissions by 2050.

The European Green Pact is the European Union's roadmap for achieving sustainability and combating climate change. Launched in 2019, it seeks to transform the European economy into a greener, more efficient and competitive model, while ensuring the well-being of its citizens and the protection of the environment.

The impact of the Green Pact extends to key sectors such as transportation, promoting electric vehicles and sustainable public transport; industry, with stricter regulations to reduce emissions; agriculture, promoting environmentally friendly practices and pesticide reduction; and energy, boosting investment in clean sources such as solar and wind power. With these measures, the EU seeks to consolidate its position as a world leader in the fight against climate change.

The European Union has implemented various measures to reduce the impact of climate change and move towards sustainability. One of the most important is the European Climate Law, approved in 2021, which establishes the legal framework to achieve climate neutrality by 2050 and obliges Member States to adopt policies aligned with this objective.

In addition, emission reduction plans have been established, including carbon regulation through the Emissions Trading System (ETS) and the progressive decrease in the use of fossil fuels in key sectors such as transport and industry.

Another essential measure is the Biodiversity Strategy 2030, which aims to conserve ecosystems by protecting 30% of the EU's land and marine area, restoring degraded habitats and reducing the use of pesticides. With these initiatives, the EU reinforces its leadership in the fight against climate change.

The ecological transition in the European Union faces a number of challenges. One of the main ones is the resistance of certain industrial sectors, which are dependent on fossil fuels and require large investments to adapt to sustainable models. In addition, the transformation to a green economy requires significant funding, both public and private, to develop clean infrastructure and innovative technologies.

However, this transition also offers great opportunities. A commitment to green economic growth can generate new jobs in sustainable sectors and strengthen European competitiveness. Technological innovation, with advances in renewable energies and energy efficiency, will enable cleaner and more efficient production. In addition, the EU can consolidate its global leadership in sustainability, serving as a model for other regions. The success of these policies

will depend on the commitment of both citizens and businesses, encouraging sustainable habits and promoting responsible investments to ensure a greener and more resilient future.