

# Regulating Environmental Impacts

Environmental law regulates human behavior in light of its environmental impacts. Environmental impacts affect the surroundings or conditions in which humans, plants, and animals function. Every country around the world has developed its own legal and nonlegal approaches to addressing environmental impacts. These responses are partly based on normative choices about what a good environment would look like, and are informed by historical, natural, cultural, and political conditions that tend to vary widely within and between countries.

To understand how the European Union approaches environmental law, it is important to understand the distinctive challenges that are presented by regulating the environment. Environmental impacts affect the environment in which people live, rather than affecting people directly. While humans can directly change their environments—by taking actions that affect environmental quality, such as littering or picking up litter, emitting or reducing air pollutants, cutting down or planting trees—any effect of those actions on human well-being will be indirect, as a result of subsequent human exposure to the degraded or improved environment. Some environmental impacts may have very few implications for humans, while others may have profound implications for human health, well-being, and flourishing. Understanding the

implications of human actions for environmental quality, and the implications of environmental quality for human ends, thus presents special challenges to environmental regulation.

This chapter begins by introducing the core challenges to environmental law that are created by the fundamental characteristics of environmental impacts: namely, that those impacts tend to be diffuse through space and time, complex, and nonhuman in character. It then flags key normative values and choices that the EU has made regarding environmental impacts. Understanding these background normative choices can help readers in approaching the remainder of the book, which further develops the key actors, types of law, and specific strategies the EU has deployed to address particular environmental problems.

#### KEY CHALLENGES IN REGULATING ENVIRONMENTAL IMPACTS

Many challenges in environmental regulation can be traced back to three characteristics of environmental impacts. First, because the environment is both durable and dynamic, many environmental impacts are diffuse through space and time. A person who tosses a plastic bottle on the ground does not merely affect that space in that moment; the bottle may be washed away to a distant spot, or even a distant ocean, and it may take hundreds of years to degrade into microplastics, which then may affect the environment for hundreds of years more. Few, if any, of these impacts may be apparent to the person who threw the bottle on the ground in the first place, and even experts may have a difficult time predicting exactly where and when the plastic will generate environmental impacts.

Second, the impacts of human action on the environment tend to be complex. Natural environmental systems are already complex before humans become involved; it should not be surprising that it is still more complicated to predict the full implications of human action on natural environments, and to predict the follow-on effects of environmental quality on human well-being. Only in recent years have scientists

started to understand the multiple implications of plastic waste, and of degraded microplastics, on natural environments and human health. Most likely, the extent of environmental and human impacts of plastic waste depends significantly on the scope and interaction of that waste—on how many people use and dispose of plastics, and in what ways, with what frequency, and in what locations. The environmental impacts of plastic disposal are therefore obscure, technical, and dependent upon knowledge—which will often be unavailable—about other human actions that may also affect the environment.

Third, consider that environmental impacts affect the natural environment, and that they therefore relate to the nonhuman animals, plants, and processes that make up much of human surroundings. Natural processes will eventually lead to the dispersion and decomposition of a plastic bottle that is thrown on the ground—but understanding those natural processes presents challenges on its own. Understanding the implications of those processes, and of the plastic's decomposition, on the environment presents additional scientific and informational challenges: How will the plastic affect the particular ecosystem(s) into which it degrades? What plants, animals, or fungi might be affected, how, and how acutely? What other plants, animals, or fungi might be affected, in turn, by the direct impacts of environmental plastics on prey species or food sources? Which, if any, of these nonhuman effects impact human well-being? Understanding the environmental impacts of human actions requires answering questions like these, and thus carries a special kind of informational burden. And it may also trigger difficult questions about the extent to which nonhuman impacts should matter for their own sake.

Moreover, knowledge about an environmental impact does not guarantee legal action to remedy that impact. The environment cannot speak for itself, but depends on humans to do so on its behalf. The likelihood of a legal or social response differs depending on the perceived economic and social value of the environment to (a group of) individuals. This means that there are situations in which environmental impacts can go unnoticed, and unchecked, for long periods. At the same time,

TABLE I  
 Characteristics of Environmental Impacts

	Impact	Regulatory Challenge
<b>Diffusion</b>	Environmental consequences are often <i>geographically and spatially distant</i> from the human activities that caused those consequences.	Detecting and predicting the environmental impacts of human (in)action.
<b>Complexity</b>	Environmental consequences tend to be <i>obscure, technical, and interactive</i> . Many small individual actions may combine in complicated ways to create a single impact; a single action may have multiple impacts; and the type(s) of those impacts may be difficult to measure, understand, and/or solve.	Gathering and interpreting information about environmental impacts.  Tracing causal connections between human actions and consequences.
<b>Nonhuman</b>	Environmental consequences tend to relate to the <i>nonhuman animals, plants, and processes</i> that make up much of human surroundings.	Identifying (or creating) a nexus between human behavior and the nonhuman environment.  Challenging to meaningfully represent nonhuman interests.

human law is able to directly regulate only human behavior. Environmental law must therefore create a nexus between human behavior and the nonhuman environment, both to understand the impact of current human behaviors and to shape human behavior in directions that reflect a preferred relationship with the nonhuman environment.

#### THE ROLE OF NORMATIVE VALUES

Decisions about how to approach environmental problems are, explicitly or implicitly, decisions about how people want to shape the environment in which they live. This means that reasonable people might disagree as to whether the EU's strategies, as detailed in the second part of this book, work well or poorly when measured against specific environmental prob-

lems. Societies and individuals often disagree on these normative decisions, which should be unsurprising, given that they implicate important personal and social values. The choice of legal structures to respond to environmental impacts has equally important normative implications.

The EU's powers to regulate the environment are set out in the European Union treaties (see chapters 2 and 3). The priorities that the EU should set in regulating environmental impacts—which ones to prioritize, how to view risks, how to relate environmental goals to other economic and social goals—are also informed, in part, by the EU treaties. The treaties detail that in relation to general EU goals, the EU must strive for “a high level of protection of the environment and improvement of the quality of the environment.”<sup>1</sup> EU environmental policy specifically must pay attention to principles such as the precautionary principle and the “polluter pays” principle.<sup>2</sup> Moreover, the EU is meant to achieve “social justice and protection,” “solidarity between generations,” and “solidarity among Member States”<sup>3</sup>—normative goals that indirectly also relate to choices regarding environmental sustainability and protection.

The operationalization of these aims varies between environmental problems, as there is no uniform tool for the prioritization of these aims. It can be difficult, or even impossible, to make good on all of these aims within one policy or piece of legislation. Generally speaking, the combination of the precautionary and preventative principles makes the EU's environmental policies aim toward the prevention of environmental harm, even if that harm is temporally distant. In other words, the EU is relatively risk averse when it comes to accepting the possibility of environmental harm. For example, the use of genetically modified organisms continues to be extremely limited in the EU as compared to, for instance, the United States.<sup>4</sup> The fact that EU environmental law originates from the European Commission, a body made up of highly expert civil servants who are insulated from political pressures, further aids in facilitating long-term approaches to environmental policymaking.

Another important normative question that is answered differently across jurisdictions relates to environmental justice, which concerns