

Review

# Mapping the (in)Effective Enforcement of EU Environmental Law in Greece: Lessons from the EU and Domestic Courts

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**ABSTRACT:** The effective implementation and enforcement of EU environmental law at national level constitutes a thorny issue with both legal and practical aspects. Greece is among the EU Member States which has historically faced difficulties in complying with the EU environmental acquis due to the poor functioning of the Greek administration, the limited manpower, expertise and resources (especially during the recent period of the economic crisis) for the competent authorities, the lack of political will, the low awareness of environmental problems. In this context, this paper aspires to unpack these enforcement challenges at the national level based on the case law of both the Greek Council of State and the Court of Justice of the European Union. Considering that waste management, nature protection, and water and air quality sectors are recognized as areas with the most significant deficiencies in implementation at the domestic level, the analysis will focus on these four key sectors. To this end, by reviewing the relevant EU and Greek jurisprudence, this paper aspires to identify the disparities between the formal requirements and the practical application of EU environmental regulations in Greece in light of the national political, economic, social, and cultural dynamics.

**Keywords:** Compliance; Biodiversity; Water; Waste; Air pollution; EU green deal; Environmental law; Greece; Case law



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## 1. Introduction

The European Union plays a crucial role in shaping environmental policies across Europe since approximately 80 per cent of environmental legislation adopted at national level is based on EU environmental law (European Commission 2013). Hence, the “environmental policy agenda of EU member states is now largely determined by the need to implement prevailing European law and to anticipate and shape European measures and action plans (Jänicke and Jörgens 2006, 173) [1]”. From the adoption of two directives in 1970 concerning noise pollution (Directive 70/157/EEC) and polluting emissions from motor vehicles (Directive 70/220/EEC) to the first Action Programme for the Environment in 1972 and from its introduction by the Single European Act (Article 25) to its official establishment as one of the objectives of the Community by the Treaty of Maastricht (Article 2) and its further strengthening/reinforcement by the Treaty of Lisbon (Articles 191–193), environmental policy has been in constant evolution at EU landscape. This evolution was coupled with significant institutional developments such as the establishment of the European Environment Agency (EEA) in 1990 and the European Chemicals Agency (REACH) in 2007 as well as the creation of the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL), an international network of the environmental authorities of EU Member States, in 1992.

The legislative output of this constantly evolving and expanding nature of environmental protection at the EU landscape has been prolific leading to more than 200 major legislative acts covering a comprehensive array of environmental issues [2]. However, despite the range and depth of the environmental *acquis communautaire*, there is a long-standing imbalance between political ambition and adoption of high environmental standards at EU level and the state of play of their implementation on the ground at national level. To this end, the EU developed instruments and procedures with the aim of ensuring the implementation of EU law into national law. The fundamental elements of the

EU's legal toolbox concerning the enforcement of environmental law are the infringement proceedings, civil society participation based on the Aarhus Convention and the role of national competent authorities [3].

Without discussing the institutional features and the legal issues in relation to each of these mechanisms, there is little doubt that the infringement procedures have been and continue to be used by the European Commission as key legal tool to hold member states to account for breaches of EU environmental law [1] despite its cumbersome structure and its closed nature (only between the Commission and the Member States). According to the Commission's latest published data on infringement case work, currently environment is the EU policy sector with the highest number of open infringement cases at the end of 2022 [4]. Waste, water, nature and air have covered the large majority of these pending infringement cases. Moreover, at the end of the same year environmental protection is at the first place of the open EU pilot cases [4].

Discussing environmental law enforcement challenges, Greece offers an illustrative example of continued deficiency in timely and effective implementation of EU environmental legislation. Namely, Greece's long and persistent difficulties in complying with the EU environmental obligations is confirmed by the fact that it falls within the member states with the highest number of legal proceedings being brought against them by the Commission [5]. According to the European Commission's 2022 Annual Report on monitoring the application of EU law [4], a total of 24 infringement cases were opened in the environment policy area during the 2018–2022 period [6]. In addition to this, with regard to the imposition of financial sanctions according to Article 260 TFEU, Greece holds the symbolic first place with an environmental case concerning illegal landfills in violation of the Waste Management Directive. In the same vein, in 2022, fourteen out of the twenty Greek open infringement cases after a ruling of the Court of Justice (either under Article 258 TFEU and 16 infringement procedures under Article 260(2) TFEU) concern environmental law non-compliance or bad application.

The transposition and (effective) implementation of EU environmental law in Greece has historically required significant changes of the domestic institutional processes and normative structures. In light of the national regulatory tradition, Greek environmental policy has been characterized by “command and control” regulatory rules setting uniform and legally binding standards and leaving administrative actors only limited discretion and flexibility [7]. Accordingly, market-based instruments, self-regulation models, decentralization and negotiation settings between authorities and private entities have been underdeveloped. In this legalistic and adversarial regime, recourse to courts has become the main form of social intervention in the environmental decision making. Hence, Greek administrative courts and especially the Council of State (hereafter: CoS) became a key actor in the implementation of EU and domestic environmental law. This process led to the emergence of a judicial elite, which despite its often criticized ‘praetorian’ style of thinking and arguing, offered normative and cultural legitimacy to European environmental law and the wider Europeanisation of Greek environmental policy [7].

In a broader context, among the various actors in the environmental compliance process, the judiciary plays a singularly essential role in upholding the principles of legality and ensuring fair and effective interpretation and enforcement of both domestic as well as EU and international legislation. Given that courts and quasi-judicial appeal bodies or tribunals form an important component of any legal system, with respect to the environmental crisis, courts function as enforcers of “the basic requirements of social living” by enjoining forms and levels of pollution that constitute a threat to the continued existence of society [8]. In this vein, the judiciary can, and must, play a leading role in promoting compliance and enforcement of environmental regulations by balancing environmental and developmental considerations in judicial decision-making; providing an impetus to the incorporation of contemporary developments in the field of environmental law for promoting sustainable development, including access to justice, right to information and public participation; promoting the implementation of global and regional environmental conventions; and strengthening the hand of the executive in enforcing environmental regulations, in the face of often outside and improper influences that could stifle executive action [9].

In this context, what is the role of the Courts in the long-standing deficiency in EU environmental law in Greece? Has the case law addressed the systemic political, economic, social, and cultural shortcomings associated with enforcing environmental regulations at the national level? The analysis in this paper will be centered on the case law from both the Court of Justice of the European Union (hereafter: CJEU) and the Council of State demonstrating the misbalance between the formal and the actual implementation of environmental law. The cases from the CJEU refer to all infringement proceedings against Greece in the selected areas (biodiversity, air, waste, water) whereas the jurisprudence from the CoS focuses on representative cases of great significance which showcase the systematic lack of EU environmental law enforcement at national level. The selected EU and domestic case law cover the main areas which have historically been identified as top sectors characterized by poor implementation at domestic level across EU [4]:

biodiversity protection (Section 2), air pollution (Section 3), waste management (Section 4), and water protection (Section 5). In the final section of the paper, some concluding remarks will consolidate the main findings of the analysis of the case law highlighting the role of the Courts in within the peculiarities of environmental enforcement in Greece.

## 2. Biodiversity Protection: A (Very) Long Story of Compliance Failures

Despite concerted EU and international efforts, biodiversity loss and ecosystem degradation persist at alarming rates. The IPCC's 2023 report highlights that as global temperatures rise, so do the risks of species extinction and irreversible biodiversity loss [10]. Within the EU, biodiversity protection is anchored by the Birds [11] and Habitats [12] Directives, which respectively aim to safeguard wild bird species and diverse habitats, including mammals and reptiles. These directives provide the legal framework for establishing and managing the NATURA2000 network, a cornerstone of EU biodiversity conservation. The CJEU has consistently reinforced the robustness of the EU's species and habitat protection regime through numerous landmark decisions, making biodiversity a recurrent focus in EU infringement proceedings.

In the Greek legal context, numerous environmental cases concerning biodiversity protection have come before the CJEU, where consistent advocacy for addressing implementation gaps within Greek law and the adoption of more effective enforcement measures has been evident. Similarly, domestically, the CoS has consistently upheld biodiversity protection, especially for rare or endangered species. However, as will be demonstrated, the landscape of biodiversity protection in Greece is marred by administrative hurdles, a lack of decisive preventive measures and monitoring policies, and a complex legal framework prone to frequent amendments, impeding effective enforcement and compliance. In this context, for the purpose of this research, the selected cases both of CJEU and CoS put the spotlight on the two major categories of non-compliance with biodiversity legislation in Greece: (a) inadequate or absent environmental impact assessments within or near NATURA2000 areas and (b) insufficient conservation measures for protected species and habitats under the respective Directives.

The systematic challenge of adhering to EU biodiversity regulations and ensuring their effective enforcement in Greece was exacerbated during the years of the financial crisis (approximately 2009–2018). Throughout this period, Greece faced high unemployment, structural reforms, and austerity measures, with the primary focus of the government directed towards improving national economic indicators rather than prioritizing pro-environmental policies. Economic downturns often lead to a redirection of funds away from environmental initiatives to address immediate economic hardships, thereby reducing resources available for environmental and biodiversity protection. Hence, financial crises triggered political instability and a shift in policy priorities, with environmental concerns often sidelined in favor of addressing immediate economic challenges.

Commencing over 20 years ago, a pivotal case sheds light on the twin issues of inadequate assessments and insufficient environmental protection identified beforehand. Namely, the CJEU found Greece lacking in establishing and implementing an effective system to protect the *caretta-caretta* sea turtle in the vital breeding grounds of Laganas Bay on Zakynthos Island within the stipulated timeframe [13]. However, before the court proceedings began, a Presidential Decree was issued classifying the land and sea areas of Laganas Bay and the Srophades Islands as a National Marine Park and, thereby, establishing a strictly protective regime in the wider area [14]. Approximately 12 years after this designation and despite the legally restrictive regime applicable to this protected zone, the CJEU ruled that Greece had failed to halt the unregulated operation of a landfill site within the confines of the National Marine Park, citing the absence of a proper assessment for the renewal of the site's operating license [15]. Furthermore, despite numerous pollution complaints over the years, formal inspections were notably absent, with no fines imposed.

Notably, environmental inspections in Greece are hampered by bureaucratic hurdles, severe understaffing, and a reliance on the Ministry of Environment and Energy, contrasting starkly with more independent public audit bodies, such as the National Transparency Authority, which are granted with functional, administrative and financial independence and true sanctioning powers and are subject to only parliamentary control. The Environmental Inspectors Directorate, tasked with overseeing projects with significant environmental impact, has been criticized for issuing mere certificates of environmental violations without systemic inspections. Moreover, before issuing such certificates, the Directorate mandates a compliance plan lasting 1–3 years, effectively allowing entities to continue operating despite identified infringements. Moreover, the once-autonomous "Special" Environmental Inspectors Directorate was downgraded to a "General" Directorate by Law 4843/2021, exacerbating systemic dysfunction. Concurrently, regional "Environmental Quality Control Teams" remain largely inactive, their audit role sidelined by local priorities, and their activities lack consistent monitoring by competent authorities at both regional and central levels.

In the same vein, in its ruling on case C-504/14 [16], the CJEU found that Greece had not established a comprehensive and strict legislative framework to safeguard the *caretta-caretta* sea turtle in the protected Kyparissia area of the Peloponnese [17]. This failure stemmed from allowing infrastructure projects that disrupted the species and harmed or destroyed their habitats within the area [18]; specifically, the Court found that the country had failed: (a) to adopt a comprehensive, coherent and strict legislative and regulatory framework for the protection of the *Caretta-caretta* sea turtle; (b) to take preventive measures as regards the deliberate disturbance of said species during its breeding period (by, inter alia, wild camping activities, new residences, opening up of roads and light pollution); and (c) to take enforcement measures as regards the prohibition on deterioration or destruction of its breeding sites [16] (paras 159–163). Concurrently, the “management bodies” tasked with overseeing Greece’s protected areas were facing significant challenges, including funding shortages and delays in Ministry approvals for plans to restructure or merge various management entities [19]. Consequently, illegal activities in the area went unmonitored. To comply with the CJEU’s decision, and while awaiting the issuance of a Presidential Decree for area protection, temporary protective measures were enacted via Ministerial Decision for a two-year period [20]. These measures served as the foundational regulatory framework until the Presidential Decree was officially promulgated in October 2018 [21]. The Decree delineated permissible uses and activities and imposed specific measures, conditions, and restrictions for area protection and management. Notably, the Decree faced legal challenges before the CoS from citizens and legal entities operating in Kyparissia, but the Court upheld its validity [22].

Aspiring to bolster the role of existing management bodies, Law 4519/2018 was introduced, establishing managing bodies for all protected areas in Greece and extending the territorial jurisdiction of the 28 existing bodies [23]. Given that these bodies operated for over two years with insufficient funding, staff shortages, and inadequate infrastructure, Law 4685/2020 was enacted, aiming to comprehensively overhaul the management of protected areas to improve efficiency and streamline processes at a central level [24]. As part of this reform, a new NATURA2000 Management Body, the Natural Environment and Climate Change Agency Greece (NECCA), was established to replace the former management bodies. Additionally, a separate management unit was created for the Kyparissia area to oversee its management and support NECCA in environmental data management, continuous monitoring, and plan implementation.

Despite these efforts, the transition to the new centralized system was met with skepticism, exacerbated by delays in publishing the official Operating Rules of NECCA, which occurred more than a year after the legislative reform. Consequently, the old management bodies were left neglected and essentially abandoned during this transition period. This history of regulatory complexity and contradictory legislation has resulted in legal uncertainty, increased bureaucratic processes, and additional strain on an already understaffed public administration. These challenges have hindered timely implementation of biodiversity regulations, undermining environmental protection efforts.

One of the historically most problematic cases of non-enforcement of EU environmental law refers to the persistent failure of the Greek State to establish the necessary conservation objectives as well as measures corresponding to the ecological requirements of the natural habitat types and species present in the designated sites. In a nutshell, according to the Habitats Directive, Member States are allotted a 6-year timeframe to delineate priorities for maintaining or restoring the favorable conservation status of these habitats or species within designated national Special Areas of Conservation (SACs). While Greece designated its SACs in accordance with Commission Decision 2006/613/EC [25], the expiration of the 6-year deadline in July 2012 was met with persistent inaction, despite repeated urgings from the Commission [26]. After 7 years of continued non-compliance, the Commission escalated the matter to the CJEU, resulting in a decision that unsurprisingly found Greece in breach of its obligations under Articles 4(4) and 6(1) of the Habitats Directive [27].

In an effort to meet compliance requirements, Greece took its first step toward establishing national conservation objectives for protected species and habitats in 2021, followed by subsequent Ministerial Decisions in March [28] and May [29] 2023. These decisions expanded upon the initial objectives, incorporating additional habitats, species, and bird species. However, this extremely slow response from the Greek State underscores a broader issue of chronic bureaucratic delays, particularly evident in the adoption of Presidential Decrees of Protection. According to Greek law, the designation of land use and protective measures for NATURA2000 Network areas must be executed via Presidential Decrees, following the approval of Special Environmental Studies. Despite the public tender for these studies being initiated in 2016, and their commencement by external consultancy firms in early 2019, significant delays persisted. The legal landscape underwent significant alteration with the enactment of Law 4685/2020 in 2020, amending the study content and designation criteria. Yet, as of February 2024—nearly eight (!) years after the tender’s initiation—no draft Presidential Decrees have been published or formally approved, prolonging the process further.

During the years of the financial crisis, environmental regulations were relaxed and policies weakened, leading to the continuation of energy-intensive activities and heavy industrial processes, such as onshore and offshore hydrocarbon exploration and extraction. Despite the threat posed to the national biodiversity capital, these activities were not deterred in the hopes of generating revenue for the country [30]. At the judicial level, the significance of renewable energy installations in mitigating climate change impacts and promoting green energy, even within protected areas, has been the subject of numerous decisions by the Council of State.

More specifically, the CoS held that the installation of wind farms within Special Preservation Areas (SPAs) pursuant to the Birds Directive and Important Bird Areas (IBAs) is permissible, provided that thorough scientific assessment of the impacts on birdlife is conducted [31]. In this vein, in its judgment no 1429/2022, the CoS ruled that wind farms are permissible in sensitive island ecosystems under specific conditions, including a carrying capacity assessment, proper spatial planning, and the development of scientific studies. Furthermore, the CoS has determined that a *complete* ban on the installation of wind farms in or near NATURA2000 areas, is not mandated by the Habitats and Birds Directives. Instead, they allow for licensing after a thorough assessment of environmental impacts, identification of compensatory measures, examination of alternative solutions, and consideration of reasons of overriding public interest.

The surge in renewable energy projects following the initial years of the financial crisis was unprecedented, prompting heightened scrutiny from civil society and environmental NGOs advocating for more prudent spatial planning and licensing of renewables. Two significant decisions by the CoS in 2022 resulted in the annulment of environmental permits for two wind farms situated in Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) [32]. The rulings cited reasons including inadequate appropriate assessment, insufficient consideration of the cumulative/synergistic effects of both wind farms, and a lack of adequate mitigation measures. These decisions underscored the importance of authorizing plans and projects only when there is *no reasonable doubt* regarding their adverse impacts on the integrity of protected areas.

The complex scenario outlined emphasizes the pressing need for proactive policy interventions and collaborative, environmentally conscious measures. Furthermore, it is essential to fully equip relevant agencies with skilled personnel to ensure rigorous scrutiny of authorized projects. However, addressing the deeply ingrained structural deficiencies within the Greek governmental system poses significant challenges, despite initial albeit cautious progress toward stringent enforcement of EU biodiversity regulations.

### 3. Air Pollution: Forgotten or Ignored?

Protecting air quality is one of the most critical environmental issues, potentially having the most significant impact on human health, as identified by WHO [33]—a fact recognized by the European Union years ago, leading to efforts to control and mitigate it. According to a recent Eurobarometer survey [34], European citizens' concern about air quality issues is high, with 60% feeling poorly informed and 47% believing that air quality has deteriorated [35] significantly over the last decade [36]. Indeed, this sense of under-information among European citizens is confirmed by this survey, as only 27% have heard of the institution of air quality standards as a mechanism in EU law to tackle air pollution (see Chapter 3.2. herein) and among them a percentage of 67% believe that it should be strengthened in order to make it more effective [36].

The EU has a long history of policy and legislation in this area; the current EU's approach to air quality is based on a three-pillar strategy [37]: 1. air quality standards [38], 2. national emission ceiling reduction targets [39], and 3. emission standards for four key sources of air pollution. EU's air protection policy and legislation are based on a twofold approach: *on the one hand*, the control of concentrations of dangerous gases in the atmosphere, which is what Directives 2008/50 and 2004/147 essentially address, and *on the other hand*, the limitation of pollutant emissions, which is the subject of Directive 2016/2284 [40]. Finally, the third aspect of the EU air policy consists of some specific, thematic legislative instruments focusing on the regulation of air pollution at source [41].

The recent developments related to air quality in Greece are rather disappointing, as the country has been recently found to have violated the EU legislation twice due to poor air quality in the two major Greek urban centres, namely Athens and Thessaloniki, explicitly confirming the severity of the problem and highlighting the presence of systemic dysfunctions. In cases C-633/21, *Commission v Greece (Valeurs limites—NO<sub>2</sub>)* [42] and C-70/21, *Commission v Greece (Valeurs limites—PM10)*, that are of major importance as, for the first time, the Court ruled on the two cities where half the country's population, the Court found that Greece violated the European legislation on air quality, confirming this way Greece's poor performance in the field of environmental protection and consequently the protection of human health.

In short, in case C-633/21, the Court upholds the Commission's infringement action and finds that Greece, having systematically and continuously exceeded, from 2010 to 2020, the annual limit value for nitrogen dioxide (NO<sub>2</sub>) in the agglomeration of Athens, has failed to fulfil its obligations under Directive 2008/50 on ambient air quality, by refraining from adopting appropriate measures to ensure that the exceedance period of the limit value in question is as short as possible. An important element of the judgment is that the slight improvement in the concentration value of NO<sub>2</sub> (nitrogen dioxide), which in fact continued to exceed the prescribed limit value for an intermediate period of two years (2013 and 2014), was not considered to be critical by the CJEU, confirming that the continuous and systematic nature of the exceedance was established [40]. Moreover, it is sufficient for a single sampling point to show a level of pollution above the limit value, without it being necessary for that to happen at all the sampling points.

The Greek Government presented the adopted measures to the Court in the form of infrastructure projects in the Athens agglomeration. These projects aim to alleviate traffic congestion, enhance public transport usage through an increased vehicle fleet and optimized transport systems, and promote the use of alternative fuels, with a specific focus on electromobility. The government also underscored the significance of the National Climate Law, then under development, which would play a pivotal role in achieving the aforementioned objectives [43] (paras. 45–46). However, the Court clarified that an air quality plan must include a specific implementation schedule and an assessment of the expected improvement in air quality. The Greek government's assertion regarding the development of an air quality plan for the greater Athens area, initially anticipated to be finalized by March 2022 but currently unpublished, was not accepted by the CJEU. The information provided by the State did not enable an assessment of its alignment with the requirements of the Directive. Nonetheless, even in the best-case scenario, the plan would have been adopted more than a decade later than initially expected.

The aforementioned judgment has been succeeded by another, akin in nature, this time pertaining to the Thessaloniki agglomeration [43]. In this instance, a systematic exceeding of the daily limit value of PM<sub>10</sub> was identified. Since 2005, Greece had consistently fallen short of complying with the PM<sub>10</sub> limit values in various zones and agglomerations. In this vein, in 2008, the Hellenic Republic sought exemption from the obligation to comply for four zones and/or agglomerations, a request that was denied by the Commission. Instead, the Commission issued additional formal notices and reasoned opinions, citing infringement of Article 5 para. 1 of the preceding Directive 1999/30 to various zones and/or agglomerations over several years [43] (paras 18–33).

Following an extended exchange of letters, opinions, and replies between the Commission and the Hellenic Republic, the Commission concluded that the breach of the daily limit value for PM<sub>10</sub> in the Thessaloniki agglomeration had persisted almost continuously from 2005 until 2019. Hence, Greece had failed to ensure compliance with the limit and to implement corrective measures promptly, leaving no room for an infringement procedure.

The CJEU emphasizes that the exceeding of the limit values for pollutants in ambient air alone is adequate to establish a violation of the provisions outlined in Article 13 para. 1 of Directive 2008/50 [43] (para 64). In the current case, the Court deduces, based on the evidence presented, that the daily limit value has consistently been exceeded, demonstrating an upward trend during those years and proving the existence of a systematic and continuous infringing attitude [43] (paras 66, 68–69). Notably, according to the CJEU, meteorological conditions that could influence pollution levels cannot absolve the responsible Member State from exceeding the limit values for PM<sub>10</sub>. On the contrary, these conditions constitute factors that must be taken into account within the framework of air quality plans, which the Member State is mandated to formulate under Article 23 of the Directive. These plans are crucial for the relevant zones and agglomerations to achieve the limit value in the event of an exceedance [43] (para 76).

Concerning the stipulations of Article 23 para. 1 of Directive 2008/50, the court established that, in the present case, there was an absence of an adequate action plan for air quality in the Thessaloniki agglomeration that complies with the formal requirements outlined in Article 23 in conjunction with Annex XV of Directive 2008/50 and has been duly communicated to the Commission [43] (para 121). In response to an assertion put forth by the Hellenic Republic, the court clarifies that “*structural difficulties arising from both the socio-economic and financial stakes of the large-scale investments to be made or from local traditions and specificities were not, in themselves, exceptional and were not such as to preclude shorter time-limits*” [43] (para 123, as translated in Greek by the authors). In conclusion, particularly concerning the nation's assertion of promoting electrification as a measure to combat air pollution, the CJEU highlights that the pertinent National Plan for Energy and Climate lacks an assessment of the anticipated enhancement in air quality and the timeframe required to accomplish these objectives. Consequently, the Court deems it insufficient on substantive grounds.

As deduced from these recent judgments, it becomes apparent that the national air quality plans in Greece have not been conducted, let alone implemented. Instead, scattered provisions are discernible within legislative fragments governing the licensing of projects subject to the obligation of prior environmental impact assessment, particularly those

related to industrial emissions. In 2019, even though the “*Air Quality Plan for the Athens agglomeration, in accordance with the requirements of Directive 2008/50/EC and development of a reporting application under Decision 2011/850/EU*” project was launched, its estimated cost of 1.9 billion euros was considered excessively high. Coupled with the challenge of administrative complexities arising from the fact that the proposed measures fall under the purview of multiple Ministries, the path toward practical implementation is both lengthy and fraught with difficulties.

The competent authorities aim to concentrate on precise, targeted interventions in areas where the limit value is exceeded, establishing low emission zones with specific traffic regulations. In connection with the Thessaloniki agglomeration, a study addressing the exceedances of PM10 concentrations was drafted in 2022. Since then, the proposed measures for reducing emissions from biomass combustion, primarily associated with individual heating systems, have been under scrutiny [44].

These judgments underscore a pressing issue: the escalating problem of urbanization, which stems from the neglect of rural areas by political leaders. This phenomenon has led to population concentration in major urban centers, burdening them with environmental challenges. Policymakers must adopt a more comprehensive approach to addressing air pollution, implementing measures alongside air quality plans to alleviate pressure on large cities and revitalize rural areas. With recent CJEU findings of infringement, there is hope that the country will prioritize fulfilling its EU commitments, safeguarding the health and environment of its citizens.

#### **4. Waste Management: Lack of Infrastructure Fostering Lack of Enforcement?**

The production of waste stands as a prominent byproduct of contemporary economic and societal behaviors and consumption trends, constituting a persistent and escalating challenge for both the preservation of the environment and human health, despite ongoing efforts to mitigate its impact. To illustrate, every year an estimated 11.2 billion tons of solid waste is collected worldwide according to the UNEP [45], whereas, based on statistics uploaded on Eurostat’s website [46], the European Union generated approximately 2.3 billion metric tons of solid waste in 2018, excluding organic waste derived from agriculture and sewage sludge.

In this context, EU policies and regulations regarding waste management have consistently been crafted with the overarching goal of safeguarding both human health and the environment. The legal framework governing waste management is primarily defined by two key legislative tools, the Waste Framework Directive 2008/98 [47] and the Regulation 1013/2006 [48] on shipments of waste, aimed at aligning with the provisions of the Basel Convention [49]. On the other hand, the aim of EU waste policy is to advance the circular economy by maximising the extraction of valuable resources from waste materials whenever technically feasible and eventually achieve the transition from a linear (“take-make-use-dispose” pattern) to a circular (“reuse-repair-high-quality recycling” pattern) economy model [50].

As inferred from the numerous infringement decisions by the CJEU about Greece, the country’s compliance to EU waste law has always been problematic. The Court has repeatedly found Greece in violation of EU law for improperly transferring or failing to transfer at all or misapplying the waste-related rules. In this section, the extensive case law from the CJEU will be referenced, providing a comprehensive overview of the challenges surrounding the state’s compliance with EU waste law. Additionally, indicative examples from Greek CoS cases will illustrate the significant disparities in waste management issues that national judges must address, underscoring the substantial progress needed for full compliance with EU waste legislation in the country.

The poor application of EU waste law goes back decades. For instance, in case C-45/91 [51], the judgment found that the Hellenic Republic violated Directives 75/442/EEC and 78/319/EEC, which were in force at that time. This was due to the failure to implement the necessary measures to ensure the disposal of toxic and hazardous waste from the metropolitan area of Chania without endangering human health and the environment, as well as the failure to establish relevant plans or programs in that area. Subsequent to this judgment, the Court determined that the Hellenic Republic further breached EU law by not undertaking all essential measures to comply with the aforementioned judgment, concurrently providing clarification that “*a Member State may not plead internal circumstances, such as difficulties of implementation which emerge at the stage when a community measure is put into effect, to justify a failure to comply with obligations and time-limits laid down by Community law*” [52].

Regrettably, the Court has found violations of EU waste law on numerous occasions since then. In case C-119/02 [53], Greece was deemed responsible for failing to implement the necessary measures to establish a sewerage system for urban wastewater and for discharging it into the environmentally sensitive area of the Gulf of Elefsina. Many years later, the Court determined that Greece had still not complied with this judgment, resulting in the imposition of a financial penalty [54]. In case C-502/03 [55], Greece faced condemnation by the CJEU when 1,125 uncontrolled landfills were found to be in

operation. The CJEU, through its judgment in case C-378/13, imposed a fine on Greece for its non-compliance with the initial judgment [56]. Cases involving the illegal operation of landfills were also noted in C-600/12 [57], C-677/13 [58] and C-202/16 [59]. In C-440/06 [60], Greece was found to have neglected to ensure that numerous agglomerations in the country have urban wastewater drainage and treatment systems. The Court, in C-167/14, imposed a fine on the country for its continued non-compliance [61]. In numerous instances, the tardiness in implementing effective waste management practices in suitable landfills was exacerbated by vehement and enduring opposition from local communities. Even when an area is deemed suitable for landfill installation after rigorous environmental impact assessments, residents often adamantly resist such projects within their vicinity, prolonging the delay in waste management efforts [62].

In the intriguing Case C-517/11 [63], Greece was found to be simultaneously violating the Directive on the conservation of natural habitats and of wild fauna and flora [12] and the Directive on urban wastewater treatment [64]. Greece had failed to take all the necessary steps to prevent the deterioration of the natural habitats and the habitats of species belonging to the Natura 2000 network. Concurrently, it had not established a system for the collection and treatment of urban wastewater for the Langada agglomeration. Lastly, in case C-286/08 [65], the Court blamed Greece for its failure to formulate and adopt, within a reasonable period, a hazardous waste management plan in accordance with the requirements of relevant EU legislation. Additionally, Greece was condemned for not establishing an integrated and adequate network of disposal installations for hazardous waste characterized by the most appropriate methods, ensuring a high level of protection for the environment and public health. In C-584/14 [66], the Court imposed a daily fine for each day of delay in complying with the aforementioned C-286/08 judgment, along with a lump sum of EUR 10 million.

On domestic level, the waste-related case law from the Greek CoS is also prolific. The majority of its decisions pertain to municipal waste, often stemming from annulment applications filed by residents, local authorities, or associations in areas where the establishment or operation of a waste management facility is contested. These cases involve issues regarding the facility's operation. For instance, the CoS has periodically addressed concerns related to the suitability of chosen waste disposal sites [67], underscoring the significance of having a regional plan for waste management. This ensures protection for environmental and human health, emphasizing that national legislation, in deciding on the construction of waste treatment plants, should consider factors pertaining to the general national and public interest in line with the principle of sustainable development. It reiterates that the national judge can perform a boundary test but not a feasibility and technical one.

In cases arising from operational challenges in waste management installations, the national judge has highlighted the possibility for Member States to enforce more stringent environmental protection measures than those mandated by EU law. This is permitted, provided they adhere to EU Treaties and notify the Commission [68]. Member States have discretion in managing waste, as long as they aim to fulfill their EU obligation of proper management [69]. The selection of the most suitable method of waste treatment in a specific installation is within the technical discretion of competent administrative authorities and thus lies beyond the Council's jurisdiction. The Council can only examine whether the chosen method aligns with national waste management planning and adheres to the principles of prevention and precaution [70]. The CoS has also clarified that competent authorities have a binding obligation to sanction offenders causing pollution or environmental degradation during waste production and/or treatment [71].

This problematic situation concerning waste treatment in Greece prompted the adoption of new comprehensive legislation, Law No. 4819/2021. This legislation was introduced to incorporate Directives 2018/851 and 2018/852, amending Directives 2008/98 [72] and 94/62 [73]. In essence, it establishes a new integrated waste management framework mandated by EU law, aligning with the objectives outlined in the 1st Action Plan for the Circular Economy of 2015 [74]. It replaces the previous general regime on waste management set by Law 2939/2001.

Briefly, the new legislation transposes general rules, including the waste hierarchy and the end-of-waste status. It places emphasis on extended producer responsibility issues and coordinated management systems among waste producers [75]. Additionally, the legislation outlines specific licensing procedures for waste treatment installations, ensuring their operation aligns with environmental and human health protection. It highlights the significance of waste management plans and programs at both national and regional levels. Throughout the legislation, various provisions serve as incentives for waste producers and local authorities to reduce waste production. These include the disposal fee, the pay-as-you-throw scheme, and administrative fines and criminal sanctions for breaches of relevant provisions. The legislation undergoes periodic enrichment through concrete amendments and additions, with the latest being Law 5037/2023. Notably, this law is of great importance as it establishes, for the first time, a specific regulatory authority for waste, known as the Regulatory Authority for Energy, Waste, and Water [76]. In a similar vein, the National Waste Management Plan was amended in 2022 to align with circular economy requirements, introducing provisions for the improvement of recycling materials sorting centers and the strengthening of the national network of recovery units [77].

Nonetheless, it remains to be seen whether the recent legislative renewals in the past few years are the missing elements that will empower Greece to actively pursue EU objectives and ultimately fulfill its EU obligations. Regrettably, the practical implementation of waste law continues to pose challenges to this day, as evidenced by the country's recent referral to the CJEU over landfill issues in Zakynthos [78].

In addition to legislative and organizational reforms, addressing the "free rider problem" entrenched in Greek society poses a formidable challenge. This issue involves citizens, both in their personal routines and as participants in environmentally impactful activities, exploiting inadequate infrastructure by neglecting responsible waste management practices. Many opt out of recycling, reuse, or repair efforts and adopt a "not-in-my-backyard" mentality. Hence, alongside legislative measures, there's a pressing need to prioritize awareness campaigns and foster a pro-environmental ethos among the populace.

## 5. Water Protection and Management: Fragmentation and Lack of Coordination

A fundamental natural resource vital for sustaining all life forms, water stands as one of the most crucial elements for human development, climate circulation, and ecological balance. Beyond its role in the survival of living organisms and the preservation of global ecosystems, water serves as the driving force for development in various sectors such as agriculture, fisheries, energy production, industry, transport, and tourism. The global community has made concerted efforts to ensure comprehensive water protection through various international agreements, to which the EU and its Member States are signatories [79,80], while at the EU level, the recognition of the paramount importance of safeguarding and preserving the water environment has resulted in the formulation of the "Water Framework Directive" (WFD), specifically Directive 2000/60/EC. Enacted on 22 December 2000, the WFD establishes a comprehensive framework for EU-wide action in the realm of water policy by integrating qualitative, ecological, and quantitative objectives and aiming to maintain the good status of water resources. Alongside other water-related legislation [81,82], the EU has established a comprehensive regulatory framework for sustainable and integrated water management on a pan-European scale.

In Greece, achieving effective coordination among central, regional, and local authorities is frequently hindered by bureaucratic hurdles. These obstacles stem from entrenched rigidities within the public sector, including issues such as understaffing, lack of qualified personnel, overlapping responsibilities, and more. This affects the field of water protection in a twofold way: first, it hinders proper planning, which then delays effective policy implementation, as mentioned in the Commission's 6th implementation report on the WFD (2021) [83]. Second, it allows incidents of water pollution to occur without proper oversight from the authorities, sometimes persisting unchecked for extended periods. The case law analysis delves into two key aspects: (a) water policy planning and (b) water pollution cases. Its goal is to unravel significant developments concerning the challenging national water planning policy, revealing the State's slow adherence to EU Law requirements. Subsequently, it references CJEU and national case law on enduring water pollution cases within the country. In exploring the latter, the analysis aims to underscore the delicate equilibrium between economic interests and water preservation, a recurring theme in case law.

Concerning, first, water policy planning, the transposition of the WFD into the national legal framework was achieved through the Law 3199/2003 [84] and the Presidential Decree 51/2007 [85]. However, notable challenges surfaced in the effective and timely implementation of the Law: as per the Commission's 6th implementation report on the WFD (2021), a pivotal concern was underscored - the level of actual implementation in the field remained uncertain [86].

More precisely, as stipulated by Law 3199/2003, the responsibility for safeguarding and overseeing the management of each river basin falls under the purview of the Decentralized Administration within its respective administrative boundaries. Each administration is entrusted with formulating a comprehensive River Basin Management Plan (RBMP) for the river basins falling under its jurisdiction [87]. These plans are crucial for supplying the requisite data, information, and evaluations vital for water body preservation and management, thereby making substantial contributions to integrated water governance at the national level. Nevertheless, Greece encountered hurdles in promptly adopting and disseminating these plans, resulting in a violation of its obligations under the WFD, as confirmed by the CJEU [88].

In the wake of this judgment, the first RBMPs were adopted between 2013 and 2014 [89] with revisions in 2017 [90]. In February 2023, Greece was formally notified by the European Commission for its lapse in completing the revision of the third RBMPs, as mandated by the WFD. The Strategic Environmental Assessment Studies for these plans are presently undergoing public consultation, and in November 2023, the Commission issued a reasoned opinion [91], granting Greece a two-month window to rectify and address the identified deficiencies.

Likewise, Greece is facing infringement proceedings due to its failure to review, adopt, and report the revision of the second generation of Flood Risk Management Plans (FRMPs [92]) and to update the Flood Hazard Maps and Flood Risk Maps, as required by the Floods Directive (Directive 2007/60/EC [93,94]). In November 2023, the Commission issued a reasoned opinion to the Greek authorities.

The collaboration among administrative bodies appears to have been marred by significant challenges over the years, resulting in prolonged delays in the adoption of the mentioned Plans. This issue came to light in 2015 when the Commission highlighted the need for stronger involvement of local authorities responsible for water management. The aim was to prevent a disconnect between the planning process and water management practices. Despite these recommendations, River Basin Management Plans (RBMPs) continue to be centrally implemented by external consultant firms [95]. Additionally, there is a call for enhancing the long-term capacity and expertise within the public sector [96].

At the national level, the Acheloos river diversion case (the second biggest river in Greece), spanning over two decades, stands as a stark example of the persistent shortcomings in safeguarding water resources by the State. The project aimed to divert the river to irrigate agricultural land in the Thessaly region and construct dams in its upper reaches. However, environmental NGOs swiftly challenged the project's ministerial permits, arguing that the diversion's negative impact on the river's ecosystem was not adequately studied, violating prevailing EU environmental laws. Despite initial rulings against the project by the Council of State (CoS) [97], subsequent ministerial approvals were issued. These were again contested, leading the CoS to reiterate its previous judgment [98], highlighting the lack of examination of alternative project scenarios in the environmental impact assessment, deemed unlawful.

Despite this earlier case law, the government persisted in its efforts to revive the project, only to face further setbacks. Namely, a more recent decision by the CoS [99] found that the project violated both Greek and EU water management legislation, citing the absence of prior approval for the water resources development program and inadequate planning for dam construction locations [100]. This determination to proceed with an environmentally unsustainable project amidst a developmental surge underscored the authorities' prioritization of economic growth over environmental concerns. Ultimately, the project's revival was definitively quashed by the Judgment no 26/2014 by the CoS, following a CJEU judgment on a preliminary reference submitted by the same national Court [101]. In a nutshell, the CJEU's ruling weighed the project's environmental impact against its intended benefits. While acknowledging the imperative need for drinking water, the CJEU emphasized that irrigation must demonstrate significant environmental benefits to justify its implementation under Article 6(4) of the Habitats Directive. Subsequently, the Council of State (CoS) issued a definitive decision against the Acheloos diversion, citing insufficient water management and environmental impact assessments that violated sustainable development principle and threatened the broader river ecosystem.

To sum up, despite legal victories in the courtroom, the project's practical advancement during prolonged litigation had already inflicted damage on the river environment. This persistent disregard for adverse court rulings, coupled with a failure to align with evolving EU environmental standards, underscores Greece's ongoing challenges in achieving a coherent and environmentally sound water policy framework.

Arguably one of Greece's most significant cases of water pollution centered on the dumping of hazardous industrial waste into the Asopos River, spanning Boeotia and northern Attica, marking a grave environmental crime in the country's history. Dating back to 1969, the river had been designated as a "treated wastewater drainage pipeline [102]", a classification reiterated in a 1979 Prefectural Decision. Over four decades later, the area saw a proliferation of some 700 industries, with 500 generating liquid industrial waste, resulting in alarming levels of hexavalent chromium, a known carcinogen, contaminating drinking water sources [103]. Despite citizen complaints, it was not until the establishment of the Special Environmental Inspectorate Service that inspections were conducted, leading to the issuance of environmental violation certificates that were never enforced [102].

Subsequently, a citizen petition sought the annulment of a 2007 Joint Ministerial Decision designating an area near the Asopos River as an Industrial Zone, allowing waste disposal into the river. The Council of State (CoS) ruled that the river's prior classification as a wastewater drainage conduit could not serve as the sole legal basis for the contested decision, citing the absence of studies on the river's carrying capacity limits and the failure to explore alternatives [104]. This prompted a series of CoS decisions annulling industrial plant permits in the vicinity of Asopos [105] and highlighting the passive stance of the Boeotia Prefecture, which had neglected to thoroughly investigate industrial operations or impose legal sanctions to curb further river pollution. Amidst the absence of a comprehensive plan for the proper treatment of industrial waste, the decision by the Suspension Committee of the CoS (No. 662/2012) delved into the intricate balance between financial freedom and environmental protection. It ordered the lifting of the closure of a polluting plant only after stringent compliance checks with environmental standards and hazardous waste management permits, alongside the requirement for a study on the restoration of polluted soil near the cesspit.

Internationally, the Asopos case gained attention in 2013 when the International Federation for Human Rights (FIDH) filed a complaint against Greece, leading the Committee of Ministers of the Council of Europe to issue a unanimous resolution holding the Greek State accountable for neglecting to address the pollution's impact on public health [106]. More specifically, it cited delays in administrative coordination and precautionary measures, as well as mismanagement of water resources and waste.

In the wake of the consistent inaction by the competent administrative authorities, new applications by local residents were submitted before the CoS which repeatedly urged them to take the appropriate prevention and remediation measures for water damage(s) pursuant to Directive 2004/35/EC on environmental liability in 2012 and 2015 [107]. "Without any further delay" the State was asked, in particular, to (a) stop the operation of the plants without a waste treatment system or the ones operating in violation of the environmental conditions related to waste treatment, (b) solve the chronic problem of waste treatment in the area, and (c) take appropriate measures to restore the disturbed ecosystem. The industrial region adjacent to the river remains largely unchanged as of 2024.

In conclusion, the analysis of CJEU and CoS rulings on water protection and management in Greece underscores the escalating issue of inaction by both local and central authorities. This inertia is evident in the lack of integrated water policy planning and inadequate policy responses to risks facing nationally significant water bodies. Particularly concerning is the reluctance of administrative bodies to prioritize environmental protection over economic interests. In this context, the CoS emerges as a vital institution committed to upholding environmental safeguards.

## 6. Concluding Remarks

Although the degree of (non) compliance with the environmental *acquis* through the EU is a familiar topic of study, answers to why or whether environmental compliance is a particular problem remain elusive [6]. In this context, detecting and mapping implementation deficits in Greece provide a better understanding of the inconsistencies between the formal and actual implementation of EU environmental law at national level through the lens of EU and domestic case law. As demonstrated, Greece has a long-standing deficiency in EU environmental law enforcement despite the several good examples of compliance. This is due to a wide array of national political, economic, social and cultural peculiarities.

Without delving into detail in all those reasons, it is a general conclusion that infringements are often linked to practical implementation-related problems, including limited infrastructure and overlaps of regulations transposing EU environmental law provisions. In addition to this, emphasis should be given to the centralized, formalistic and legalistic tradition of the Greek administration [8]. Therefore, the transition to an effective compliance with the EU environmental *acquis* in Greece requires a radical departure from the "business as usual" and systemic changes to the existing, well-rooted economic/industrial model as well as a strong vertical coordination between the national and local environmental policies [108]. In this vein, the financial advantages of not adhering to regulations might outweigh the potential penalty imposed by the CJEU [109,110].

Moreover, taking into consideration that tackling environmental problems entails the consistent application of multiple long-term projects that require a stable socio-political and economic framework, Greece as a case study has demonstrated that such a serious and far-reaching political and financial commitment to environmental protection is still to be found. This is echoed in the years of financial crisis where budgetary interests prevailed over environmental (and other social) considerations. Under these circumstances, the already well-known and chronic problems, such as the low level of administrative capacity, the slow legislative procedures, the limited resources for environmental inspections and the lack of updated data for the state of the environment, have been significantly aggravated. This is coupled with lack of effective national preventive policies and strategies to tackle the more and more regular extreme environmental phenomena such as floods, wildfires, heatwaves and droughts.

To sum up, enforcing environmental laws is crucial for the effectiveness of domestic efforts to protect the environment and tackle climate change. The Greek cases in the four selected sectors illustrate that presuming a direct correlation between the formal adoption of environmental legislation and its actual enforcement may lead to skewed conclusions. In countries like Greece, characterized by a persistent trend of weak enforcement and compliance with environmental legislation due to various economic, socio-political, cultural, and administrative factors, the actual implementation of formally adopted environmental laws on paper could be prompted by two key elements: (i) Enhancing environmental information and citizen participation; and (ii) Raising awareness of the economic benefits associated with compliance.

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## Informed Consent Statement

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