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Broader, Deeper and Greener: European Union Environmental Politics, Policies, and Outcomes

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Abstract

The European Union (EU) is influential in environmental politics and policy-making across its 28 member states, around its periphery, and globally. Building on a diverse analytical and empirical literature, this article's seven sections each highlights important research findings and outcomes from more than four decades of EU environmental governance. These include (a) a substantial transfer of legal authority from member states to the supranational level; (b) a growing involvement of EU bodies, advocacy groups, and civil society in regional goal-setting and decision-making; (c) the development of elaborate governance systems and mechanisms for making, implementing, and enforcing policy; (d) EU exercise of considerable influence over countries seeking membership before and after joining the Union; (e) increased EU participation and influence in international fora; (f) a mixed record of uneven implementation and varied environmental outcomes in Europe and across the world; and (g) continuing challenges in nascent attempts to engender greater resource efficiency and sustainability in Europe and beyond. All of these findings and outcomes suggest numerous areas and directions for additional research.

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INTRODUCTION

The European Union (EU) is, by far, the most legally and politically authoritative international organization in the world. Today's EU dates back to the 1957 Rome Treaty, establishing the European Economic Community (EEC), and a parallel Rome Treaty, creating the European Atomic Energy Community (EURATOM) (1–3). Membership has grown from the six original countries to 28 member states—representing more than 500 million people and cooperating and making decisions within a diverse set of EU bodies (see **Table 1**). This important expansion has been accompanied by a significant growth in the quantity and scope of EU law. The environment is among the great number of EU policy domains where this legal development is most notable and influential (4–8). Decades of institutional change have resulted in an EU with expansively broader supranational authorities, deeper political and economic integration across a larger set of countries, and substantially expanded and greener environmental policies.

After modest beginnings in the 1970s, the EU emerged as a regional and global leader in environmental politics. This development, largely unanticipated at the onset, was facilitated by a series of amendments to the EEC Rome Treaty, as well as by political changes across Europe. EU law-making has yielded a large, and expanding, body of environmental policy that includes some of the world's most stringent regulatory standards. However, EU environmental governance has produced mixed outcomes; scientific and policy data show significant environmental and human health improvements in some areas but little progress in others (9, 10). EU environmental politics also is an area where national interests and perspectives clash, as European politicians and peoples express much support for some initiatives and outright ridicule of other efforts to standardize requirements and products (7). Substantial implementation and policy integration challenges remain across member states, as EU and national-level policy-makers and organizations struggle to put strong rhetoric and ambitious policy goals on sustainability into practice.

Table 1 EU membership over time

Year	Members	Total
1958	Belgium, France, Italy, Luxembourg, Netherlands, West Germany	6
1973	Denmark, Ireland, United Kingdom	9
1981	Greece	10
1986	Portugal, Spain	12
1995	Austria, Finland, Sweden	15
2004	Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia	25
2007	Bulgaria, Romania	27
2013	Croatia	28

Early studies of EU environmental politics date to the 1980s, with a sharp increase since the 1990s. Building on this analytically and empirically varied literature, the next seven sections examine important findings and outcomes from more than 40 years of EU environmental governance, including the following:

1. a substantial transfer of legal authority from member states to the supranational level;
2. a growing involvement of EU bodies, advocacy groups, and civil society in regional goal-setting and decision-making;
3. the development of elaborate governance systems and mechanisms for making, implementing, and enforcing policy;
4. EU exercise of considerable influence over countries seeking membership before and after joining the Union;
5. increased EU participation and influence in international fora;
6. a mixed record of uneven implementation and varied environmental outcomes in Europe and across the world; and
7. continuing challenges in nascent attempts to engender greater resource efficiency and sustainability in Europe and beyond.

All of these findings and outcomes suggest numerous areas and directions for additional research.

EU STUDIES AND THE EXPANDING LEGAL BASIS OF ENVIRONMENTAL POLICY

The EU's current form results from a complex combination of legal, political, economic, social, cultural, and security interests, actors, and institutions. EU developments are explored in an analytically diverse and growing body of scholarship. In many ways, theories of European cooperation are complementary, each highlighting different causal dynamics in dynamic integration processes. Although theoretical categorizations vary across the literature, the following six conceptual and analytical approaches are common:

- Intergovernmentalist analysis focuses on (the most powerful) states, national interests, and leaders in shaping political agendas and decision-making (11, 12).
- Neofunctionalist approaches explore how EU bodies, states, and other actors cooperate to address practical problems and how such cooperation can spill over to include also more politically sensitive issues (13, 14).

- New institutionalists study how institutions such as social structures, principles, and norms shape the interests, behavior, and decision-making of states, EU bodies, and advocacy groups as they develop new collaborative mechanisms (15, 16).
- Constructivists are interested in how deeper identities and interests of EU bodies, states, and nonstate actors are shaped and changed through social interaction and communication, and how this impacts discourses and decision-making (17, 18).
- Multilevel governance research examines how EU bodies, states, and other actors operate across regional, national, and local governance levels, how authority is shifted across forums and scales, and how this shapes decisions and outcomes (19, 20).
- Europeanization studies explore how European integration influences how member states interact with EU bodies and nonstate actors, as well as developments and obstacles toward greater policy convergence (4, 21–23).

Acknowledged by all theories of European integration, EU law-making authority stems from provisions in foundational treaties negotiated, approved, and revised by member states. The Rome Treaty, which laid down the basic functions of the EEC, did not cover the environment (see Table 2). However, it contained other language that served as a legal basis for the introduction of environmental initiatives. Two sets of treaty-based provisions, in particular, were referenced by early environmental policy advocates: first, the general functioning of the Community in support of integration and aspirations to improve peoples' living and working conditions, and second the mandate to reduce barriers to trade and economic exchange toward the ultimate objective of creating a single market (24, 25). Building on these early treaty provisions, substantial legal authority over time has been transferred from national venues and bodies to the EU level, resulting in a great expansion of supranational environmental policy-making and standard-setting.

Official EU environmental politics dates back to the 1972 Paris Summit of leaders of then nine EEC member states (6). This summit, held as the modern environmental movement gained momentum, was a follow-up to the United Nations Conference on the Human Environment in Stockholm, Sweden, earlier the same year. The Stockholm Conference called for political, scientific, and technical cooperation around environmental issues such as industrial pollution and marine and terrestrial wildlife protection. In response, the Paris Summit initiated the practice of developing Environmental Action Programmes where the EU sets agendas and identifies areas for targeted action. Many environmental laws in the 1970s and 1980s were adopted arbitrarily, reacting to specific conditions and changing political and economic contexts rather than as part of a clearly visible or systematic strategy for a greener Community (26, 27). Since then, however, EU bodies, member states, and advocacy groups have harmonized numerous environmental and human health standards, with many raised above the lowest common denominator (5, 28).

While paying greater attention to ecological and human health issues, Community bodies and member states simultaneously moved to deepen economic integration through the creation of a common market, realizing the single market in 1993. This required the coordination of national policies and reducing obstacles impacting the free movement of goods between member states, including environmental controls. Much environmental policy standardization increased mandates across the region—often substantially. These efforts were aided by the adoption of the 1986 Single European Act (SEA), which created the European Community (EC), and launched a series of important changes to environmental decision-making processes. First, the SEA included treaty articles for environmental law-making. Starting in the 1970s, the Court of Justice of the European Union (“the Court”) established an initial legal basis for Community environmental action, resting on case law. Building on these Court decisions, the SEA marked the beginning of

Table 2 List of EU treaties and select provisions^a

Treaty (common name), year signed (year entry into force)	Select provisions
The Treaty of the European Economic Community (The Rome Treaty), 1957 (1958)	<ul style="list-style-type: none"> ■ Outlined authorities of main Community bodies ■ Articles used to address early environmental action pertaining to the general functioning of the Community, improving living and working conditions, and creating a single market ■ Council decision-making required consensus with Parliament only having consultative rights
The Single European Act, 1986 (1987)	<ul style="list-style-type: none"> ■ Created the EC, replacing the EEC ■ Article on harmonization measures connected to the single market introduced Council qualified majority voting ■ Contained articles formally acknowledging environmental issues as a Community task, requiring unanimity in the Council ■ Increased the role of Parliament in environmental policy-making via the cooperation procedure with the Council
The Treaty on the European Union (The Maastricht Treaty), 1992 (1993)	<ul style="list-style-type: none"> ■ Created the EU, subsuming the EC ■ Extended Council qualified majority voting to environmental articles ■ Parliament more equal with Council, replacing cooperation procedure with codecision procedure
The Treaty of Amsterdam, 1997 (1999)	<ul style="list-style-type: none"> ■ EU institutional and procedural changes in preparation for new member states ■ Further empowered the Parliament, expanding use of codecision procedure to more environmental and public health areas ■ Made sustainable development a core EU goal and strengthened commitments to environmental policy integration
The Treaty of Nice, 2000 (2003)	<ul style="list-style-type: none"> ■ Further changes to EU bodies to aid increased membership ■ Adjusted Council qualified majority voting, raising the threshold for the necessary number or votes
The Treaty of Lisbon, 2007 (2009)	<ul style="list-style-type: none"> ■ Created a system of three levels of competences, environmental issues falling under shared competence ■ Council-qualified majority voting adjusted to double majority system ■ Established the ordinary legislative procedure for environmental policy-making between the Council and the Parliament

Abbreviations: EC, European Community; EEC, European Economic Community.

^aThis table was modified from Reference 7.

an ambitious approach to adopting more expansive and stringent environmental laws based on separate treaty provisions.

Second, the SEA introduced qualified majority voting, as member states in the Council of the European Union (“the Council”) approved new laws. Previously, the Council acted by consensus giving each country veto power. In the SEA, member states agreed that a shift toward majority voting was necessary to effectively make decisions in a growing Community. Green leader states used this opportunity to push for more ambitious policies (29–31). Initially, some environment-related issues addressed under treaty articles pertaining to the single market were subject to majority voting. In contrast, issues falling under the new environmental provisions still required member state unanimity. Among the major changes in subsequent treaty revisions was the application of majority voting to decisions addressed under the environmental articles, as that list was expanded to include almost all environmental issues (with a few exceptions where member states retain the right to make their own decisions, including fiscal matters, energy supply, land use and planning,

and quantitative water management). The rules for Council voting further changed over time, most recently determined by the 2007 Lisbon Treaty.

Third, the SEA granted the European Parliament (“the Parliament”) greater influence, establishing the cooperation procedure for policy-making together with the Council. Previously, the Council consulted Parliament, but was free to decide whether to follow its recommendations. The Parliament’s increased role continued through the 1992 Maastricht Treaty, which created the EU (incorporating the EC and EURATOM) and expanded the cooperation procedure into the codecision procedure. Since being given a greater role, the Parliament has helped raise many standards (32). The 1997 Amsterdam Treaty and the 2000 Nice Treaty amended EU bodies and procedures to allow for a large membership increase, made sustainable development a core objective, and stressed the importance of improved environmental policy integration. The Lisbon Treaty established rules for the current codecision procedure, also called the ordinary legislative procedure, and identified the environment as an area of shared competence where EU bodies formulate policies with member states.

ENVIRONMENTAL POLICY ACTORS

Much EU literature, where individual studies are more or less explicitly written within one or more theories of European integration, focuses on specific actors, including the evolving functions of EU bodies, member states, and nonstate groups in environmental governance. This is in part the result of the actor-centric feature of much social science literature; however, EU environmental policy-making and implementation is also dispersed across several fora, creating a need for studies of how main actors behave and interact across the EU. In an EU lacking a clear organizational center, a growing number of actors shape regional environmental goal-setting and decision-making. Five EU bodies are most actively involved in environmental issues—the European Council, the European Commission (the Commission), the Council, the Parliament, and the Court (33, 34)—but other EU bodies, member states, advocacy groups, and civil society have also taken on important roles.

EU Bodies and Member States

Member states meet regularly in the European Council, setting political agendas and discussing high-profile issues. The European Council is headed by a President, who is elected jointly by all member states for a 30-month term. This high-level body is not involved in passing laws but is a forum wherein heads of governments formulate broad goals and set directions, seeking to balance regional and national interests. Each member state holds the Presidency of the European Council for six months, on a rotating basis, chairing meetings and shaping work agendas, thereby allowing it to prioritize particular issues during its term (35). Most discussions are not specific to the environment, but the European Council plays an important role in formulating collective targets for greenhouse gas (GHG) emission reductions and renewable energy expansions, for example. Decisions on other political and economic issues also have significant ramifications for efforts to green the EU and move toward sustainable development. Furthermore, the European Council is crucial in the selection of the President of the Commission. In addition, European Council meetings on foreign policy and security issues include the presence of the High Representative of the Union for Foreign Affairs and Security Policy who also serves as Vice President of the Commission.

As the EU grew larger and more powerful, so did the Commission in its role as an engine of deeper integration (36). The Commission, and the people who work at the Brussels headquarters and offices around Europe and the world, are tasked with promoting collective European interests

rather than national preferences. The Commission has several formal tasks. These include (a) the sole right to propose new EU legislation; (b) monitor the implementation of EU laws in member states; (c) initiate enforcement actions against member states not meeting their obligations under EU law; (d) manage the EU budget after it has been set by member states; and (e) represent the EU in external fora (together with other EU officials including the President of the European Council, the High Representative of the Union for Foreign Affairs and Security Policy, and member state representatives). Fulfilling these tasks makes the Commission a central actor in political debates and legislative processes on environmental issues; it often advocates for greater EU authority, increased mandates, and more ambitious goals.

A Commission President presides over the College of Commissioners, all serving five-year terms (presently 2014–2019). The Lisbon Treaty states that starting in 2014 only two-thirds of member states should have a Commissioner; however, national leaders unanimously overrode this stipulation and agreed to continue the former system of having the President or one of the Commissioners from each member state (e.g., now 28 in total). The President organizes the work of the Commission.

Currently, there is one First Vice President, the High Representative of the Union for Foreign Affairs and Security Policy, and five Vice Presidents supervising broader issue areas (such as the Energy Union). Each of the other 20 Commissioners is in charge of issue-specific portfolios, which are administratively supported by departments called Directorates-General (DGs). These include the Environment, Maritime Affairs and Fisheries portfolio (DG Environment and DG Maritime Affairs and Fisheries); the Climate Action and Energy portfolio (DG Climate Action and DG Energy); the Agriculture and Rural Development portfolio (DG Agriculture and Rural Development); and the Health and Food Safety portfolio (DG Health and Consumers).

The Council—previously named the Council of Ministers—is the second body with member state representatives who meet and negotiate on the basis of national interests, as they seek common ground on regional issues (37). The Council plays a key role in EU environmental law-making, as one of the two bodies that reviews legislative proposals from the Commission under the ordinary legislative procedure. Council work, supported by a separate Secretariat, is divided into nine topical areas. The Environment Council addresses all environmental issues, including climate change, whereas agricultural and fisheries issues go through the Agriculture and Fisheries Council. On the basis of the Lisbon Treaty's double majority voting system, a proposal passes the Council under the ordinary legislative procedure with a qualified majority of 55% of member states (16 of 28), representing at least 65% of the EU's population. Unless a blocking minority includes at least four member states, the necessary majority is deemed reached even if the population criterion is not met.

The roles and authority of the Parliament have changed significantly throughout the series of treaty revisions. Originally, the Members of the European Parliament (MEPs) were selected by member states' national parliaments; in 1979, direct elections every five years commenced (32, 38). The size of the Parliament grew with the increase in member states, to the current 751 seats. Seats are allocated roughly on the basis of member states' populations, but MEPs sit in political groups rather than national ones. The Parliament has input in the selection of the President of Commission and holds hearings with nominated Commissioners, which may result in candidate withdrawals, before a vote to approve the full Commission. Much work takes place in parliamentary committees, including the Committee on Environment, Public Health and Food Safety, which often takes relatively proenvironmental positions. In both committee and plenary, MEPs make decisions by simple majority (majority of voting members) or absolute majority (376 of 751 members).

The Court plays a central role in EU environmental governance by elaborating the legal basis of EU environmental policy-making consistent with treaty language supporting higher standards

and guiding their uniform application in member states. Court proceedings are either contentious or noncontentious (25). Contentious proceedings settle disagreements between member states, between EU bodies, between the Commission and a member state, or between individuals and EU bodies. Noncontentious proceedings occur when a member state national court voluntarily asks the Court for a preliminary ruling on how to apply EU law to a domestic legal case (including environmental ones). National courts are not obligated to ask for such rulings but must follow them once they have decided to seek advice from the Court. In several rulings since the 1970s, the Court developed an expanded role for environmental policy action and clarified relationships between single market operation and the need for measures to protect human health and the environment, including how these should be taken when they intersect with economic and trade issues (39).

In addition to the five main EU bodies, other committees and agencies fulfill separate environmental policy functions (and these are generally less studied in the literature). The Committee of Regions, consisting of members from member states' local and regional authorities, provides opinions on environmental and other policy issues. Similarly, the European Economic and Social Committee, whose members come from employer and workers organizations and other organized interest groups, issues opinions on socioeconomic matters. Both Committees, however, exercise limited influence (40). Also, more than 40 specialized agencies operate in discrete areas (41). These include the European Environment Agency (gathering data and producing regional, national, and issue-specific assessments and reports on environmental conditions and trends), the European Food Safety Authority (providing scientific and technical information on food and feed safety, nutrition, animal health and welfare, and plant protection), the European Chemicals Agency (executing administrative and assessment tasks implementing EU chemicals policy), and the European Fisheries Control Agency (coordinating member states' activities under the Common Fisheries Policy). As the number and activities associated with these agencies grow, their roles in monitoring and policy reform increase.

Private and Civil Society Actors

As the EU gained influence and lobbying in Brussels increased substantially, debates and studies of how EU bodies work with stakeholder groups, including in environmental politics, became more common. Lobbying creates opportunities for nonstate groups to shape policy that impacts them, but draws criticism that organized and specialized interests can have undue influence, including on environmental, agricultural, and fisheries policies (42). To counterbalance the influence of well-funded and well-staffed private sector groups, the Commission financially supports participation and work by environmental advocacy groups in its frequent external consultations and growing reliance on outside experts (43, 44). European business groups often oppose efforts to increase specific mandates due to cost and international competitiveness concerns but generally acknowledge that environmental policy-making is a central EU function. Environmental groups frequently seek potential allies in the Commission, in the Parliament, and among leader states, as they advocate for stronger goals and more stringent policy.

Interest groups often engage EU bodies and policy processes through umbrella organizations. These include BusinessEurope (lobbying on behalf of national business federations in 33 countries), the European Chemical Industry Council and Euro Chlor (both representing large chemical companies located across Europe), Green 10 (coordinating efforts by large environmental organizations), and the European Environment Bureau (speaking on behalf of more than 140 environmental groups in 30 countries). Many major private sector actors and environmental organizations, including Greenpeace, Friends of the Earth, and WWF International, have offices

in Brussels. Sometimes, looser, short-term alliances of different actors are formed around specific policy issues, as explored in the literature on coalitions and networks (45–47). Furthermore, non-European groups such as the American Chamber of Commerce as well as Chinese and other foreign industry representatives are active in Brussels.

In addition, the 2011 European citizens' initiative law affords the public the right to petition the Commission to develop a new policy proposal in the environmental and other areas where the EU holds decision-making competence. A petition must be signed by a minimum of one million people from at least one-quarter of member states (7 out of 28) with a minimum number of required signatures in each country. The Charter of Fundamental Rights of the European Union also gives individuals the right to petition the Parliament to address environmental and other topics. Both initiatives seek to increase individuals' abilities to interact with EU bodies, partly in response to contentious discussions about ways the EU needs to become more transparent and democratic to address concerns about "democratic deficits," as a growing number of major decisions are taken in EU bodies far removed from average citizens (48).

MAKING AND IMPLEMENTING ENVIRONMENTAL POLICY

In addition to analyses of EU history and the roles of EU bodies and other actors in regional politics, many studies focus on the EU's elaborate governance system and the way law is adopted and transposed in member states, including the use of different policy instruments and how principles and norms guide decision-making. This interest stems from the EU's increasingly expansive systems for making, implementing, and enforcing policy. Scholarly interest continues in examining processes by which specific policies are formulated, revised, and expanded through the current ordinary legislative procedure and the increasingly influential comitology system (49, 50). EU policy-making is often characterized as technocratic in content and by extensive efforts to achieve consensus, even as attempts to accommodate different interests can be highly controversial and politicized. EU literature also focuses on member state implementation of environmental laws, how such processes are monitored, and how EU bodies enforce compliance (51–53).

EU Legislation and Policy Instruments

EU law combines primary legislation (the treaties) and secondary legislation (issue-specific laws). EU bodies adopt three types of secondary legislation. First, regulations, passed solely by the Commission or jointly by the Council and the Parliament, set down rules that member states must implement uniformly by a shared deadline. For example, the large 2007 law requiring the registration, evaluation, authorization, and restriction of chemicals in the single market is a regulation (the so-called REACH regulation). Second, the more commonly used directives, passed by the Council and the Parliament, stipulate certain ends allowing member states flexibility in how to meet these. Directives may include varying deadlines based on differences in national conditions. Many air pollution laws, for instance, are directives. Third, decisions, issued by the Council (sometimes with the Parliament) or the Commission, are binding acts requiring authorities or individuals in member states to act or stop doing something, and/or bestowing them with specific rights. Examples include requirements for reporting and sharing pollution data.

In choosing environmental policy instruments, EU bodies continue to favor command-and-control style approaches, but also rely on some market-based instruments—most notably the Emissions Trading System (ETS) for reducing GHG emissions. The EU also makes limited use of suasive policy instruments such as voluntary agreements and eco-labels (54). Environmental policy formation is guided by several principles, including the polluter pays principle (polluters

should bear the burden of mitigation and clean-up costs); the precautionary principle (a lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation where there are threats of serious harm); the subsidiarity and proportionality principles (policy decisions should be taken at the lowest appropriate administrative level as EU-level action should not go beyond what is necessary to meet EU objectives); and the effort sharing principle (member states are assigned varying targets based on domestic environmental and socioeconomic differences) (7). The exact application of these principles, however, is often highly contested during the adoption of specific policies.

Making Environmental Policy

EU environmental agenda-setting and policy-making involve numerous actors competing for attention and influence, and defending various perspectives and interests. Given that the Commission is designed to promote integration and to push the harmonization of standards across member states, and has the sole right of initiative to propose new legislation, all new policy proposals originate within this body. However, the development of policy proposals also includes extensive participation by outside groups, which makes different DGs within the Commission major centers of lobbying by member states, firms, and environmental and consumer advocates. Member states, through a simple majority in the Environment Council, can formally ask the Commission to examine the need for policy change in support of a particular EU objective. The Parliament, with a majority of MEPs, may request that the Commission address a particular issue. Individuals can use the online European citizens' initiative to petition the Commission to address particular topics. Such initiatives include support for both more ambitious and less stringent environmental standards.

Often, actors attempting to reshape the EU environmental policy agenda push for some sort of working paper or informal report on current policies, their shortcomings, and the state of related scientific and technical information. Even when the initial work, including early drafts of new policy, is conducted within an individual DG under the leadership of a single Commissioner, much consultation occurs across DGs and with other EU bodies (including the Council, the Parliament, specialized agencies, and consultative committees). One way environmental leader states influence such agenda-setting processes is through the placement of national government experts within the Commission, where staff frequently relies on external assistance (55). Such seconded experts can have considerable influence on environmental policy proposals. In 2002, the Commission also introduced an Impact Assessment reports system to evaluate needs for new EU law and consider pros and cons of specific policy options (56). This practice seems to have impacted Commission working processes, but less so subsequent law-making (57).

Final legislative proposals are endorsed by the full College of Commissioners before the dossier is sent to the Council and the Parliament for first readings (see **Figure 1**). It is also forwarded to the Committee of Regions, the European Economic and Social Committee, and national parliaments for reviews and comments. Extensive consultation between EU bodies continues throughout the legislative process.

In the Parliament, MEPs face two options: adopt the original proposal or amend it. The initial review is carried out by a lead committee before the dossier is sent to plenary where other committees and groups of MEPs can suggest further amendments. During the 2009–2014 session, the Committee on Environment, Public Health and Food Safety dealt with the single highest number of cases—79 of the 641 files in the ordinary legislative procedure (58). In both committee and plenary, a simple majority of voting MEPs is required to approve an amendment. Over the years, the Parliament has often advocated raising environmental standards (59). After plenary

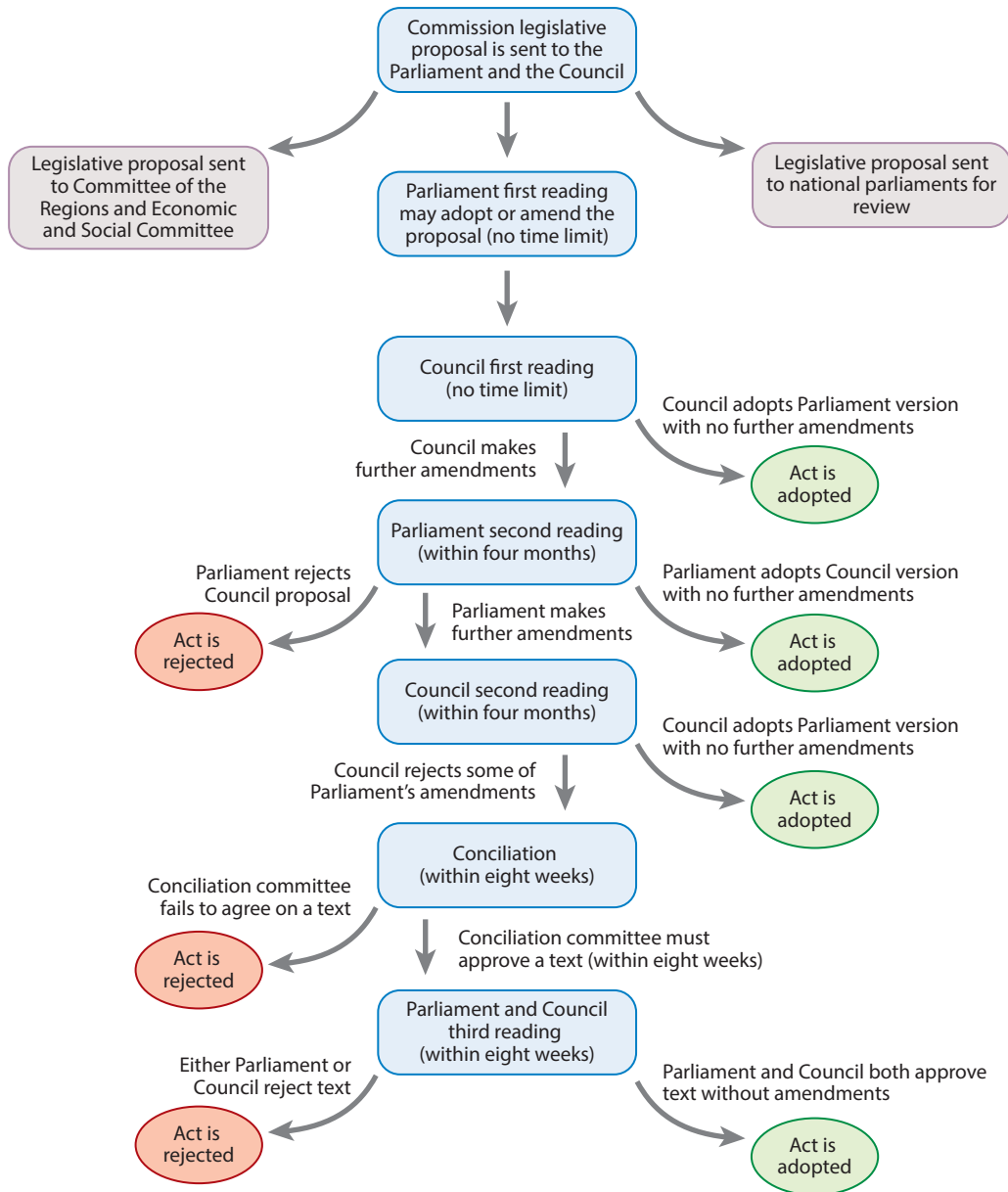


Figure 1

Scheme of the ordinary legislative procedure (7).

vote, the dossier goes to the Council where it is examined by lower-level working groups and committees before being forwarded to the Committee of Permanent Representatives (member state officials with titles of Ambassadors to the EU). Ultimately, it goes to national government ministers in the relevant Council group (such as the Environment Council), formulating a common position. One estimate claims that 70% of dossiers are finalized at the working group level, whereas

85–90% of issues are settled by all member states in the Committee of Permanent Representatives before reaching the ministerial level (60). Even though decisions can be made by double majority, member states typically strive for consensus.

If both bodies accept a proposal or adopt identical amendments, it becomes law. Otherwise, the Parliament goes through a second reading where MEPs accept, reject, or amend the Council's common position. If Parliament accepts the common position by simple majority, or fails to act within four months, it becomes law, but rejection of any amendments by an absolute majority ends the process. MEPs introducing further amendments by an absolute majority require the Council to carry out a second reading. If the Council accepts the Parliament's revised proposal, the law is adopted, but if any amendment is rejected a Conciliation Committee must be created within eight weeks. This Committee, with the same number of members from each body, must prepare a compromise text within eight weeks of its creation. Subsequently, the Council (qualified majority) and the Parliament (simple majority) are obliged to act within eight weeks in a third reading. If both bodies approve the text, the law is adopted, but if either one rejects it, or does not act in time, the proposal fails. During the 2009–2014 legislative session, 89% of all cases were finalized after the first reading, 10% were concluded at the end of the second reading, and only 1% went to third reading (61).

The Comitology Procedure

As EU law increased in quantity and ambition, the Council was unable to specify rules during implementation in a timely and efficient manner, and started to delegate some rule-making powers to the Commission (49, 50). To manage this gradually more important process, member states and the Commission began the comitology procedure in 1961—initially mainly to revise rules under the Common Agricultural Policy (62). Over time, the significance of the comitology procedure increased considerably. In recent years, between 200 and 300 comitology committees were in operation. In 2011, for example, 268 comitology committees were organized in 29 policy sectors (63). Environmental policies were addressed by the second highest number of committees at 30. In addition, there were 4 climate action committees, 14 agriculture and rural development committees, and 5 maritime affairs and fisheries committees. The comitology system has changed substantially over the years with current rules detailed in a 2011 regulation (64). Now, all issues relating to the environment, agriculture, fisheries, and the health or safety of humans, animals, or plants fall under the examination procedure.

Under this procedure, the Commission drafts an implementing act, which is sent for review to a comitology committee of member state representatives and chaired by a Commission official. If the committee's opinion is positive, garnering a qualified majority in favor, the act is adopted. A negative opinion with a qualified majority against blocks the proposal. A split committee resulting in a no opinion gives the Commission discretion over the act's adoption. A negative opinion or a no opinion where the Commission does not want to adopt the original proposal leaves the Commission two options: submit an amended version to the same committee for a second round of considerations, or resubmit the original proposal to an appeals committee. In the latter case, member state representatives and the chair can propose changes in search of compromise. If the appeals committee's opinion is positive, the Commission adopts the original proposal. A negative opinion ends the process, and a no opinion again affords the Commission the authority to decide whether or not to adopt the act. Information about comitology cases is also sent to the Parliament, which holds the right to comment on whether it thinks a draft act goes beyond the implementing powers afforded to the Commission, but has much less influence here than during the ordinary legislative procedure.

Beyond implementing acts, the Lisbon Treaty created a second mechanism for making changes to existing laws in the form of delegated acts. These supplement or amend so-called nonessential elements of law adopted through the ordinary legislative procedure (62). Some issues, such as revising technical mandates to a pollution control law, may nevertheless be politically controversial among EU bodies and member states. Importantly, the newer delegated acts system provides the Parliament with more direct influence on regulatory outcomes than under the older system of implementing acts. Here, both the Council (by qualified majority) and the Parliament (by absolute majority) must approve a proposal by the Commission before it can be adopted. Both bodies can also revoke the Commission's power of delegation on specific issues. Whether a particular part of law is amended by implementing or delegated acts is stipulated during initial law-making. MEPs—arguing that the system of delegated acts is more democratic but also wanting to enhance their own authority—often prefer delegated acts over implementing acts. However, this important choice can create struggles between the Parliament and the Council as member states seek to protect their influence when this issue is decided during the ordinary legislative procedure.

Ensuring Implementation and Compliance

After new laws are passed or additional rules are set through the comitology procedure, each member state is responsible for implementation. This may require changing domestic legislation, adopting additional rules, and/or creating new governance structures. In general, the speed of member state implementation is shaped by a combination of political will and ability, including degree of institutional fit (29, 53). To ensure member states meet their obligations, the Commission plays important monitoring and enforcement roles with the Court. Implementation data come from multiple sources, including member state self-reporting, the European Environment Agency and other specialized agencies, or complaints filed by nonstate groups and individuals. In 2011, 3,115 new complaints regarding insufficient domestic implementation of EU policy reached the Commission. Environmental policy-related complaints constituted the single largest group (with 604) (65). Many nonstate actors and individuals also submit environment-related petitions to Parliament, which may contact the Commission on implementation-related issues (52). If domestic implementation problems persist, the Commission may launch a four-stage infringement procedure.

The Commission first initiates informal discussions with a member state government. If the Commission is satisfied with the response, the process ends. If not, the Commission secondly sends a formal notice, requesting an official reply. If the answer is deemed unsatisfactory, the Commission in a third phase formulates a reasoned opinion, stating its position and calling for improved compliance with specific requirements. If a member state in the Commission's opinion fails to meet these requirements, the Commission can refer the issue to the Court, which issues a judgment in phase four. Member states found noncompliant and failing to comply with the ruling can be returned to the Court by the Commission and issued financial penalties. Only a small minority of infringement procedures go through all four phases, which takes an average of almost four years. The average duration of an environmental Court case is approximately two years.

Recently, the number of open infringement cases across all areas of EU law has declined, from almost 2,900 cases in 2009 to 1,343 by the end of 2012 (66). In 2012, the environmental area had the single highest number of open cases—272 (20% of total number). These included water management, nature protection, waste handling, inadequate application of impact assessments, and air quality. Several other cases relating to climate change, energy, and agriculture and rural development were also open. Most environmental cases involved Spain (with 27), Italy (with 25), and Greece (with 19), but all member states struggle at times; for example, the Commission in

2012 initiated procedures against 24 out of 27 member states for failing to transpose a directive on buildings' energy performance (66). Many Court rulings support the Commission over member states. By 2012, however, financial penalties had been issued in only five environmental cases: Greece (1997), Spain (2001), France (2007), and Ireland (twice in 2012) (66, 67). By the end of 2012, member states had failed to implement 35 Court judgments on environmental issues, leaving them open to future financial penalties.

ENVIRONMENTAL POLITICS AND EU ENLARGEMENT

Rather than trading off growing membership for continued political and economic cooperation, the EU has grown from 6 to 28 member states while pursuing deeper integration across a host of policy areas, including the creation of a single market and a vast expansion of environmental policy. Additional countries are seeking membership. By April 2015, two candidate countries were officially in membership negotiations (Montenegro and Turkey), three countries were waiting to open such talks (Albania, Macedonia, and Serbia), and Iceland had officially halted membership talks first started in 2009. However, no additional country is expected to join until at least 2019 (68). During lengthy and intrusive accession processes, and afterwards, the EU exercises considerable influence over candidate countries that have made EU membership a national foreign policy priority. Here, EU environmental politics research highlights several major issues relating to membership requirements, leaders and laggards dynamics among member states, difficulties of domestic policy adjustments, and the provision of EU support for new members.

Since the mid-1990s, formal political, economic, and legal criteria for EU membership have included stable democratic institutions based on the rule of law protecting human rights, a functioning market economy, and the adoption of all EU legislation (69). Membership negotiations are demanding and focused on altering candidate countries' domestic laws, rules, and institutions to meet EU standards and requirements. This process is based on conditionality where candidate countries are rewarded for moving toward EU principles, standards and policies. The full body of EU law is divided into thematic chapters during negotiations. Currently, the 35 chapters include an environment chapter, as well as others with significant environment-related content: agriculture and rural development; food safety, veterinary, and phytosanitary policy; fisheries; transport; and energy. Negotiations on each chapter are closed when a candidate country has adjusted all relevant national governance structures and policies to those within the EU. Countries do not receive EU membership until all chapters are closed.

Environmental issues were not important during the earliest enlargement in 1973 when Denmark, Ireland, and the United Kingdom joined as this happened before the advent of EEC environmental politics. The 1980s membership expansions—adding Greece (1981), Portugal (1986), and Spain (1986)—took place as member states moved toward the SEA creating a clear legal foundation for environmental law-making. During the often contentious negotiations leading up to this first major revision to the original Rome Treaty, northern member states including Denmark, Germany, and the Netherlands argued for a single market with high environmental and human health standards. Southern member states, including the most recent ones, however, focused on promoting economic growth through increased investment and trade. In a compromise, countries agreed to create a single market starting in 1993 with clear legal provisions for adopting environmental laws and setting up structural funds with financial resources to support development and infrastructure projects in less affluent member states (5).

The 1995 inclusion of Austria, Finland, and Sweden, affluent countries with high environmental standards (some above those of the EU), shifted the political balance toward member states favoring more ambitious environmental policy-making (4, 70). Collectively and individually, green leader

states worked within EU bodies to raise standards and push major reforms of, for example, water governance and chemicals management. Such actions were driven by a series of interests, including responding to domestic political opinion, wanting to reduce transboundary pollution, protecting domestic industries subject to relatively stringent domestic mandates by pushing for uniform standards across the single market, expanding markets for firms exporting greener technology, and making it easier for firms to comply with one set of rules on the single market rather than several diverse national requirements. Member state laggards often resisted such efforts, believing their less demanding regulations constituted a competitive advantage and that higher EU standards would be too expensive to implement (29, 31).

In many ways, the enlargements of 2004, 2007, and 2013 (adding Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia, Bulgaria, Romania, and Croatia) posed the greatest challenges for both the EU and new member states (71, 72). Central and Eastern European countries suffered massive ecological destruction under Communist regimes, creating severe environmental and human health problems. Candidates had limited institutional, financial, and human capacity to effectively change, monitor, and enforce environmental regulation or engage civil society, as they were building a market economy and a democratic system. Some observers expressed fears that adding many new members with lower economic and ecological standards would significantly slow or weaken EU environmental policy-making (73). Such worries were largely unfounded; newer members have not acted as a uniform block in the European Council or the Council, instead joining various coalitions of member states around particular environmental issues (72, 74). Similarly, their MEPs take varying positions on new environmental legislative proposals (59).

As part of EU cohesion policy, the Commission and older member states help build public and private sector capacity in newcomers. These attempts to sustain democratization and economic restructuring promote financial investment in environmental management, assist rural and agricultural development, and support environment- and transportation-related infrastructure (75). The Commission and member states are also part of the Environment for Europe process, holding ministerial conferences and promoting improved public and civil society sector capacities and policies (76). EU membership and support have significantly raised many environmental and human health standards in newer member states. However, the role and effectiveness of conditionality are contested (77). Targeted governments sometimes respond selectively and largely on paper without altering more fundamental norms and practices, as analysts find varying levels of progress across programs, issues, and countries (74, 78–80). There is also evidence of corruption in member states (81).

In addition, the EU offers political and financial support to civil society groups. The Commission and member states helped create the Regional Environment Centers in Hungary and Georgia working across Central and Eastern Europe to enhance cooperation between public, private, and civil society actors. In a broader context of promoting democracy and transparency, the Commission and the Parliament tend to see nonstate groups as important for public dissemination of information and monitoring state activities (51, 82–84).

EU EXTERNAL INFLUENCE

A growing body of research analyzes the EU's external activities, as EU bodies and member states for decades have sought influence in international fora and regions outside of its borders. Analyses critical of the EU's inability to sometimes formulate joint positions and exert influence often focus on traditional foreign, security, and defense policy areas, where member states remain protective of national sovereignty and often struggle to find common ground (85). In

contrast, studies examining the EU's role in international trade and environmental governance—where EU bodies hold more authority vis-à-vis member states—tend to find a greater role for the EU (86–91). These studies sometimes connect to arguments about EU attempts to exercise soft power as a normative or civilian power (92–95). Court rulings, dating back to the 1970s, established EEC's authority to act internationally in policy areas where the Community held internal legislative authority. Later rulings and practice expanded external authority to areas where no explicit Community policy existed but where external action was needed to meet central objectives. The SEA laid down formal powers of external representation on environmental issues (90, 96).

The EU is represented externally by the President of the European Council and the High Representative of the Union for Foreign Affairs and Security Policy, often with support from the European External Action Service (the EU's diplomatic arm). The Commission, through the President, Commissioners, and representatives of the various DGs, also engages international political debate and negotiation, including the formulation of treaties. Member state leaders and delegates are also present in international fora alongside EU officials (97, 98). On international policy issues such as trade, where the EU has exclusive competence, the Commission is the sole negotiator and ratifier of treaties. On environmental agreements, part of the category of mixed agreements, EU and member state officials negotiate side by side. Commission staff address issues where the Union has competence to act under existing EU legislation and national government representatives negotiate on the rest (99). Mixed agreements must be ratified by the EU and each member state individually.

EU international leadership is documented around climate change, hazardous chemicals and wastes, mercury abatement, air and marine pollution, and biodiversity protection, for example (100–104). The EU is party to more than 55 multilateral environmental treaties (7) and plays essential agenda-setting roles. Additionally, it supports policy-making by investing financial and human resources in scientific and technical assessments, backing awareness-raising workshops, and building implementing capacities. However, the EU sometimes falls short of obtaining its preferred negotiating outcomes. A high-profile example was the failure of the EU and others to secure a new, binding climate change protocol in Copenhagen in 2009 (105). EU actors seek to globalize EU standards based on a combination of environmental concerns and political-economy interests in creating a level playing field for European firms on international markets (106–109). The EU also uses its comparatively high environmental regulations to export standards via market mechanisms, as foreign countries and firms seeking access to the single market must meet these, as well as through policy diffusion efforts by EU bodies, member states, business groups, and advocacy organization (107–111). In addition, non-European civil society or public sector advocates may use EU standards and data to push for higher standards within their jurisdictions, be these US states or cities or national ministries in Asia or Africa.

The EU engages in direct relations with nonmember states in multiple ways. The single market includes the four members of the European Free Trade Agreement, via the membership of Iceland, Liechtenstein, and Norway in the European Economic Area and through a series of bilateral agreements with Switzerland. As a result, many EU environmental, consumer, and food safety standards on the single market apply directly to 32 countries. Furthermore, the EU GHG trading scheme includes Iceland, Liechtenstein, and Norway, and Norway is also developing local river management plans in accordance with EU water governance standards. In addition, the European Environment Agency includes members of the European Free Trade Agreement and Turkey, whereas Albania, Bosnia and Herzegovina, Macedonia, Montenegro, Serbia, and Kosovo are cooperating countries. The regional, country, and issue-based assessments produced by the

European Environment Agency disseminate scientific and technical environmental data that are used to build knowledge and awareness within and outside the EU (and to prepare candidate countries for membership).

The European Neighborhood Policy offers privileged relations with nonmember states (112, 113). By 2014, it involved 16 countries located to the EU's east (Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine) and south (Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, and Tunisia). The EU uses bilateral agreements to entice countries to conform to its principles and rules, engendering debates about so-called soft imperialism (114). On the basis of one-way conditionality and the more-for-more principle, countries get more financial grants (from the European Commission), loans (from the European Investment Bank and the European Bank for Reconstruction and Development), and other policy benefits, the more they perform in accordance with EU expectations (53). Most agenda topics are not environmental but include climate change, water, resource and waste management, and hazardous chemicals, as well as joining related international treaties. Selective access for goods to the single market also requires harmonization with EU standards. These EU policy efforts have produced mixed results, however, shaped by a host of regional, national, and local political and economic factors (53, 115).

Finally, the EU has increased engagement with countries located further away. Relationships with countries such as China, India, and Brazil cover a wide range of political and economic topics. Environmental issues are often part of debates and policy initiatives and may facilitate cooperation with the EU providing financial support (116–120). The EU has also completed trade agreements with more than 50 countries in Europe, the Americas, Africa, and Asia. The EU's trade agenda goes beyond trade liberalization based on reducing tariffs and other barriers to include rule-making on labor and environmental issues that conform to intra-EU standards (121, 122). Not surprisingly, this is easier for the EU when negotiating with smaller developing countries than with larger trade partners such as China and the United States. The EU also gives preferential treatment for exports to the single market to least developed countries and some former European colonies. Since 1999, the Commission requires the preparation of Trade Sustainability Impact Assessments before starting trade negotiations, typically covering several environmental and natural resources issues (e.g., agriculture and fisheries) that may be impacted by an expansion of free trade, cross-border investments, and joint rule-making.

POLICY OUTCOMES IN THE EU AND BEYOND

The EU has established institutions, policies, and standards on a host of environmental issues, engendering a mixed record of uneven implementation and varied outcomes. Regional assessments and national data show several environmental and human health conditions trending in positive directions, as Europeans enjoy a relatively safe and clean environment. However, other information reveals limited improvements in other areas, with the EU falling short of several of its many goals and targets (7). Of course, no environmental trend (positive or negative) is solely the result of EU environmental action, be those internally driven policies or efforts to fulfill commitments under international agreements. National factors such as industrial and economic profiles, urban planning patterns, energy and transportation structures, agricultural and fisheries practices, and consumer behaviors influence resource use and environmental degradation—and all differ considerably across member states. Actions by EU bodies, member states, firms, and individuals also have complex ecological consequences across the world.

European Outcomes

Policy areas with notable success over time include air and water pollution control. EU efforts helped eliminate or reduce the use of more than 200 stratospheric ozone-depleting substances, and there are varying (and often significant) reductions in other air emissions, including in sulfur dioxide, nitrogen oxides, ammonia, benzene, carbon monoxide, lead, and mercury. Nevertheless, some member states exceed national targets and many sensitive ecosystems are threatened (123–125). Urban air quality is greatly improved, but concentrations of particulate matter and ground-level ozone remain above EU limits, causing ecological damage, health problems, and premature deaths (126–129). EU water governance, based on the principle of integrated watershed management with a focus on catchment areas and river basins, has helped enhance water quality through substantial pollution controls on urban, industrial, and agricultural sources. However, many water bodies do not meet “good status” targets with major differences among member states, and water allocation and land-use patterns within watersheds often fail to meet EU goals (130–132).

Considerably more mixed outcomes of EU initiatives are clear in areas associated with waste management, hazardous chemicals, GMOs and climate change. Policy on recycling and reuse has notably reduced the amount of waste going to landfills and banned hazardous substances in electrical and electronic goods, but some products are recycled at substantially lower rates than others, and significant national differences continue (133). Approximately 32% of municipal waste is recycled across the EU, but national recycling rates vary from 64% in Germany to 1% in Romania; all states are expected to achieve at least 50% recycling by 2020, however (134). Pioneering chemicals policy on the registration, evaluation, authorization, and labeling of substances based on the precautionary principle and expanded private sector responsibility generates a vast amount of risk assessment data, triggering controls and accelerated phasing out of toxic chemicals. This helps safeguard the environment and public health, but stakeholders express concerns about the system’s administrative and financial burdens (135).

GMO policy is highly controversial as EU bodies, member states, firms, advocacy groups, and individuals express divergent values and interests. These differences, coupled with a series of World Trade Organization challenges against EU restrictions, have prevented the formulation of a clear regional approach to GMO cultivation and use in food and feed (136, 137). On climate change mitigation, the EU reduced GHG emissions by approximately 19% between 1990 and 2013 and is on track to meet the three 2020 goals of 20% reduction in GHGs below 1990 levels, 20% of final energy use coming from renewable sources, and improvement in energy efficiency by 20% compared with a 2007 reference projection for 2020 (138). No non-EU industrial country can match that record. In 2014, the EU set an additional 40% reduction goal for GHGs, together with 27% goals for renewable energy generation and improved energy savings, by 2030. However, most EU members struggle to cut GHG emissions from transportation and agriculture, even as they face growing adaptation needs in the years ahead.

Finally, some EU policy areas are notable for their repeated failures. The Common Agriculture Policy attracts substantial scrutiny due to its high financial costs, annual subsidies to large producers, and pernicious effects on international commodity markets. Critics also assert that environmental concerns are not adequately integrated in agriculture and rural development policy (139). The Common Fisheries Policy is marred by political disagreement over how to address industry overcapacity and protect fish stocks and other marine resources as scientific and technical expertise is routinely ignored. As debate continues, 30% of Europe’s commercial fish stocks are fished beyond safe biological limits and 70% of commercial stocks were fished above maximum sustainable yield in 2010, and many marine ecosystems are under considerable pressure (9, 140). The EU remains far from reaching a 2020 target and a 2050 vision relating to slowing and then

halting biodiversity loss and restoring ecosystem services. A mere 17% of habitats and species and 11% of key ecosystems covered by EU legislation are in a favorable state, and most ecosystems are degraded to the point that they no longer deliver valuable services (141, 142).

Outcomes Beyond EU Borders

EU influence on environmental governance and ecological outcomes reaches far beyond its borders with both positive and negative consequences for the environment and sustainable development. EU free trade agreements and partnerships with other countries—and European foreign direct investments—help improve human living conditions through increased economic exchange and growth, leading to job creation, higher national and individual incomes, and expanded environmental protection measures (134, 143). EU bodies and member states support environment-related technology transfer and capacity building, enhancing policy-making and implementation in developing countries under a wide range of international organizations and agreements. Enacting high environmental standards offers opportunities for other states and actors to voluntarily emulate new EU policies. This can be seen, for example, around hazardous substances and vehicle emissions, helping to raise standards in non-EU countries and improve products sold globally (144, 145). Furthermore, European firms may diffuse green technology and higher standards of environmental protection when they operate abroad (146).

At the same time, EU imports of industrial and consumer goods and resource consumption contribute to pollution, deforestation, water extraction, fossil fuel use, and mining, globally. These impacts are typically not included in European production-based estimates of GHG emissions and other ecological consequences. Examples of the ramifications of EU consumption abound as Europeans used approximately 16 tons of materials per capita in 2011 (134). EU seafood consumption, declining stocks, and fisheries controls drive efforts to access other countries' exclusive economic zones, resulting in depletion of marine resources off the coast of Africa and in the Northern Atlantic also having social and economic consequences for local communities (146–148). EU renewable energy and biofuel mandates lead European firms to acquire farm land in developing countries, raising concerns about land conversion and degradation, fertilizer use, disputes over land rights, higher commodity prices, and growing food insecurity for the poorest (143, 149). EU agricultural subsidies, import restrictions, export support, and preferential trade agreements also have wide-ranging economic, social, and environmental impacts on agricultural production and consumption in countries all over the world (150, 151).

THE FUTURE OF EU ENVIRONMENTAL POLICY

The Rome Treaty stressed the importance of improved living conditions for all people in the original six EEC member states. In the 1970s, the leaders of a growing Community expanded that goal to explicitly include environmental conditions. Looking back at the subsequent four decades of European integration and environmental politics and policy-making, the record is both impressive with respect to institutions and policies constructed over time and decidedly mixed in terms of ecological and sustainable development outcomes (10). Substantial progress in several environmental and human health areas is apparent, as Europeans live longer and healthier lives. This is perhaps most dramatically demonstrated by the enormous declines in industrial pollutants across Central and Eastern Europe in the transition away from state socialism to fully integrated EU member states. However, the EU faces enormous continuing legal, political, and societal challenges in nascent attempts at improving resource efficiency and further greening toward the

2050 goal in the seventh Environmental Action Programme, to create a low-carbon, resource-efficient economy that allows Europeans to “live well, within the planet’s ecological limits” (152).

The expansion of EU environmental law is remarkable in both quantity and scope of issues and supranational authority. The EU is now central in European environmental governance, having harmonized hundreds of mandates and protection standards upward across a growing number of countries. However, member states’ different political and economic interests and varying institutional histories and capacities impact environmental governance. This can, for example, be seen in the negotiations over regional and national goals for GHG reductions and renewable energy generation, including stalled efforts to create an Energy Union with an internal energy market as energy production remains a national priority (153). However, EU-28 per capita GHG emissions in 2014 were significantly lower than most other industrialized countries—less than half those of the United States and not much higher than China’s with some member states’ per capita emissions already lower than China’s. In many areas, countries and environmental advocates around the world look to the EU for environmental policy ideas and guidance.

Nevertheless, the EU must further reduce its ecological footprint, as EU bodies and member states seek to make more substantial progress toward fulfilling treaty-based commitments on better environmental policy integration and achieving sustainable development. To these critical ends for both Europe and the globe, they need to build on the existing body of EU law, as many environmental and natural resource policies and requirements must be revised and strengthened toward meeting the 2050 sustainability goals. Here, there is renewed interest in improved governance on linked issues across areas such as air and water pollution, the management of hazardous wastes and substances, biodiversity protection, agriculture and fisheries control, and climate change mitigation, including reaping cobenefits of regulatory approaches (154). It is also important for ecological, human health, and economic reasons to intensify efforts to improve compliance by addressing perennial problems of incomplete and uneven implementation of legislation in virtually every environmental policy area (155).

The EU remains long on environmental policy integration rhetoric but shorter on achieving such integration at a more fundamental level. While individual environmental policies have produced impressive outcomes, it has proven much harder to integrate environmental goals and policies into other socioeconomic areas and policy initiatives from the local to the supranational level (156). Meeting these goals requires broad recognition that many EU environmental problems have shifted from production-driven to increasingly consumption-driven patterns, as European consumption exceeds regional natural resource production by a factor of two (9, 134). Dealing with this changing situation means that traditional controls of major point sources and other similarly narrow measures need to be complemented with an increased focus on the importance of economic policy and lifestyle changes to reduce resource use. Consumption by EU member states, firms and individuals has significant negative environmental impacts in Europe and around the world. For the 2050 sustainability goal to be achieved, nascent efforts around the resource efficiency agenda will need to be extremely impactful and innovative.

More broadly, EU environmental policy-making seeks to green the state and societies in the quest for more sustainable development (157, 158). This effort, related to oft-invoked visions of ecological modernization and weak conceptualizations of sustainability, sometimes encompasses efforts to establish a green economy (159–161). Even if it is rhetorically recognized that achieving such goals requires fundamental changes to European and global production and consumption systems, EU initiatives to date rely largely on modest efforts to increase the use of more environmentally friendly technology and green capitalist markets without challenging the way these operate at more fundamental levels—efforts outlined while EU leaders seemingly wedded to a neoliberal economic agenda simultaneously seek to improve the international competitiveness of

European firms and support technological development (162). However, the creation of a more circular economy requires substantial lifestyle and livelihood changes and much further decoupling of welfare improvements from ecological destruction and increasing natural resource use and material throughput (163, 164).

FUTURE RESEARCH

It is clear, as this article's title suggests, that EU politics and policy are now broader in scope and authority, more deeply integrated across a larger number of countries, and greener than ever. Each section above offers numerous opportunities for future research on the causes and impacts of institutional change, the influence of particular actor types, and the drivers of success and failure in achieving environmental policy goals in Europe and beyond the EU borders.

As integration continues, even in the face of significant fiscal disagreements, several promising areas of EU environmental politics, policy-making, and implementation can be identified for further research and scholarship. For example, the evolving nature of relationships between EU bodies—including the Commission, the Council, the Parliament, and (more neglected to date) the specialized agencies—in the post-Lisbon Treaty era warrants further scrutiny. More attention can also be paid to comparative studies of environmental policy implementation and integration efforts in member states, including exploring processes of Europeanization and comparing them more systematically to other federal and quasi-federal political systems and other multilevel efforts at sustainability transitions. Limited research to date has sought to methodically explain why some areas of EU environmental policy have achieved substantial implementation and goal attainment, whereas others repeatedly fail to do so, as well as which domestic-level factors are most important in shaping a member state's implementation record. Also, studies in the area of sustainability transitions may examine opportunities for and obstacles to establishing a more resource-efficient EU. Lastly, a large set of empirical research and theorizing opportunities exists related to the many interstate, transnational, and ecological impacts of EU politics, policies, and lifestyles.

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