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Environmental policies, bases for territorial planning. An approximation to the study of the environmental policies of the European Union. Challenges and future perspectives¹

Ana Mariño García²

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Abstract. This work is aimed at analysing the functioning of the environmental policies of the European Union in order to address the use of these policies as well as the instruments to implement them, observing their efficacy to protect and preserve the environment in general and their particular social and human implications. First we will analyse international environmental policy, focusing on its consolidation through the creation of international organizations and treaties and on its theoretical background. Then, we will move forward to the development of environmental policy within the European Union, focusing on the functioning of this policy emphasizing its legal foundations on European Treaties. For this purpose we will analyse the principle of integration as well as the effectiveness of implementation regarding transposition of European law into national policy. We will also focus on the current situation of environmental policy within the Union going through the main innovations of the recent European Green Deal. Finally, some case studies will show us the reality of the European environmental policy and some of the challenges it will have to overcome in the near future. Through this work we will approach the repercussions the development of environmental policy has in international relations, paying special attention to its implications at supranational, national and regional scope within the European Union.

Keywords: Policy; sectoral policy; environmental policy; integration of environmental policy.

[en] Políticas ambientales, bases de la planificación territorial. Una aproximación al estudio de las políticas medioambientales de la Unión Europea. Desafíos y perspectivas de futuro

Resumen. Este trabajo tiene como objetivo analizar el funcionamiento de las políticas ambientales de la Unión Europea con el fin de abordar el uso de estas políticas así como de los instrumentos para implementarlas, observando su eficacia para proteger y preservar el medio ambiente en general y sus implicaciones sociales y humanas en particular. Primero analizaremos la política ambiental internacional,

¹ La presente investigación ha sido dirigido por la profesora Dr^a María Sotelo Pérez (Universidad Rey Juan Carlos, URJC).

² Universidad Rey Juan Carlos (URJC).

E-mail: a.marino.2016@urjc.es

enfocándonos en su consolidación a través de la creación de organismos y tratados internacionales y en sus antecedentes teóricos. Luego, avanzaremos hacia el desarrollo de la política ambiental dentro de la Unión Europea, enfocándonos en el funcionamiento de esta política enfatizando sus fundamentos legales en los Tratados europeos. Para ello analizaremos el principio de integración así como la efectividad de la implementación en cuanto a la transposición del derecho europeo a la política nacional. También nos centraremos en la situación actual de la política medioambiental dentro de la Unión pasando por las principales innovaciones del reciente Pacto Verde Europeo. Finalmente, algunos casos prácticos nos mostrarán la realidad de la política medioambiental europea y algunos de los retos que tendrá que superar en un futuro próximo. A través de este trabajo abordaremos las repercusiones que tiene el desarrollo de la política ambiental en las relaciones internacionales, prestando especial atención a sus implicaciones a nivel supranacional, nacional y regional dentro de la Unión Europea.

Palabras clave: Política; política sectorial; Política de medio ambiente; integración de la política medioambiental.

[fr] Politiques environnementales, bases de l'aménagement du territoire. Une approche de l'étude des politiques environnementales de l'Union européenne. Défis et perspectives d'avenir

Résumé. Ce travail vise à analyser le fonctionnement des politiques environnementales de l'Union européenne afin d'aborder l'utilisation de ces politiques ainsi que les instruments pour les mettre en œuvre, en observant leur efficacité pour protéger et préserver l'environnement en général et leurs implications sociales et humaines. en particulier. Nous analyserons d'abord la politique internationale de l'environnement, en nous concentrant sur sa consolidation par la création d'organisations et de traités internationaux et sur son contexte théorique. Ensuite, nous nous dirigerons vers le développement de la politique environnementale au sein de l'Union européenne, en nous concentrant sur le fonctionnement de cette politique en soulignant ses fondements juridiques dans les traités européens. Pour cela, nous analyserons le principe d'intégration ainsi que l'effectivité de la mise en œuvre en termes de transposition du droit européen dans la politique nationale. Nous nous concentrerons également sur l'état actuel de la politique environnementale au sein de l'Union à travers les principales innovations du récent Green Deal européen. Enfin, quelques cas pratiques nous montreront la réalité de la politique environnementale européenne et certains des défis qu'elle devra relever dans un avenir proche. A travers ce travail, nous aborderons les répercussions que le développement de la politique environnementale a sur les relations internationales, en accordant une attention particulière à ses implications au niveau supranational, national et régional au sein de l'Union européenne.

Mots-clés: Politique; politique sectorielle; politique environnementale; intégration de la politique environnementale.

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1. Introducción

For many decades now, the world has been suffering from human actions, damaging the environment and giving rise to such alarming consequences as what we know now as climate change, which is the culmination of human interference with the environment. These affirmations have been supported by the international community, basing its affirmations on scientific bases. According to the NASA climate change has more than a 95% of probability to have been caused by human action¹, which is supported by the reports developed by the International Panel on Climate Change. Climate change is defined as “a long-term shift in global or regional climate patterns. Often climate change refers specifically to the rise in global temperatures from the mid-20th century to present” (National Geographic, 2019). The origin of these events is believed to be in human action on the planet, however, this is not something new, as some might think. The peculiarity of the XXI century is not its presence, but the imminence of it being irreversible and the need to act now. Action for environmental protection started to gain strength over the last decades, but it needed a lot of time to pave its way to the core of global policy. However, environmental policy does not focus only on climate change, but tries to tackle any damaging effect human action might have on the environment, as it can be the reduction of biodiversity. In this work we will focus on this wide framework of environmental policies, aimed at reducing human impact on the environment in general and focus at the core of environmental policies: protection and preservation of the environment. Therefore, these policies will cover a wide range of human activities affecting the environment, going beyond the problem of climate change.

Together with the rise of international environmental policy, the European Union began to develop its own, increasing its importance over the decades until gaining a place at the core of the agenda of the Community. The environmental structure built by the Union is considered as one of the most extensive and complete of the world. The object of this study will be to analyse the environmental policy of the European Union, its strengths and weaknesses as well as its development over time. I decided to focus on the analysis of environmental policies in the European Union due to the increase of the importance they have acquired during the last years within the Community. Furthermore, the analysis of the environmental policy in a territorial base within the European Union allows us to assess the implications of these policies in a supranational context. We will be able to analyse the challenges of implementing Community environmental policy within all Member States, as well as the importance of cooperation and coordination in order to address the territorial environmental

issues jointly. Within this framework we will also focus on the relation between environmental policies and other sectors, bearing in mind the crucial relationship between environmental and economic regulation.

First, to analyse the environmental policy of the European Union we should define what a policy is and what characteristics it presents regarding environmental management. According to the Cambridge Dictionary a policy is “a set of ideas or a plan of what to do in particular situations that has been agreed to officially by a group of people, a business organization, a government, or a political party”. Environmental policy therefore will be those plans or actions directed at mitigate the harm caused by anthropocentric activity on the environment. Supporting this conclusion, the Britannica website defines environmental policy as “any measure by a government or corporation or other public or private organization regarding the effects of human activities on the environment, particularly those measures that are designed to prevent or reduce harmful effects of human activities on the ecosystem” (Van Bueren, E. 2011)³. These policies are aimed to reduce the impacts of human action on the environment, trying to protect it and ensure its preservation. Regarding the economy, these policies act as regulatory measures, trying to solve the externalities, in this case environmental damage, produced by market failures. When interpreting these definitions we cannot forget to understand the environment as a whole, not only including nature but also all the other components that conform life on Earth. Therefore, environmental policy is conformed of policies addressing different areas conforming the environment. They can be directed at tackling different issues, as: water pollution, biodiversity protection, earth resources or climate change.

According to this conception of “environment”, humans and its anthropocentric actions are also included within the understanding of the environment, emphasizing the interaction between these activities and the environment. This feature will make environmental policy one of the most complex policies both at international and European level. Another feature that difficulties the task of regulating environmental policy falls within the concept of sustainable development, which tries to reconcile economic, social and environmental concerns.

2. Motivation and objectives of the study

Environmental protection and climate change have always been at the core of my concerns, watching over time how we receive more alarming warnings from the international community. In light of the new change of period in the strategy of the European Union, 2021-2027 within the framework of the European Green Deal, I

³ Van Bueren, E. (2011). Environmental policy. Britannica. Accessed on 24/01/2021. Available at: <https://www.britannica.com/topic/environmental-policy>

decided to focus this brief analysis on the European environmental policies and strategies during its history, setting general and specific objectives with this purpose.

- General objective 1: analyse the process of territorial prevention through environmental policies.
- General objective 2: analyse the European Union environmental policies and determine their efficacy.
 - Specific objective 1: determine the characteristics affecting the accurate implementation of environmental policy within European Union Member States.
 - Specific objective 2: determine if there has been a general change in society and governments towards a more responsible environmental attitude.
 - Specific objective 3: address the challenges of new European environmental policies.
 - Specific objective 4: analyse through real examples the implementation of the environmental policy within the Union.

3. Work methodology

The broad dimension covered by environmental policy together with its intrinsic complexity complicated the task of defining an area of research. After doing a deep research on different areas of European environmental policy I came to the conclusion that to make a first broader analysis would be more useful and interesting, also setting the basis for further future research on the topic. In order to picture the paradigm of European environmental policy as complete as possible, I decided not to focus on very specific aspects but rather to analyse the broader structure and the functioning of this policy within the Union. I followed a deductive method, analysing first the international environmental policy in order to deepen into the concrete case of the European Union and the implementation of community policy within the Member countries. With this aim, this work is mainly bibliographic, based on primary and secondary sources. Primary sources were mainly focused on studies made on the field over the years, case law, legislation, regulation, statistical data and journal article reporting (European and international treaties, European Commission...). Secondary sources were based on textbooks analysing the functioning of the European Union over the years and articles on the topic.

4. Analysing environmental policies: a global vision

Environmental policies began to develop during the second half of last century, but despite their recent creation they have acquired a key position in both international and national levels. However, these policies had to gradually escalate to be at the center of the international community's concerns, going through a slow process of development and adaptation to the changing world and the measures needed to

protect the environment. In this section of the work we will analyse the historical development of environmental policies, specially focusing on last century's developments, as they set the foundations for today's policy. First we will analyse the development of environmental policies at an international level, setting the bases for the development of this policy in other areas. Secondly, we will move to the concrete case of our study, analysing the development of the environmental policy within the European Union, which was elaborated in accordance with the previous international developments in this area.

4.1. International environmental policy

As mentioned above, the consolidation of the international environmental policy involved a slow process of development and adaptation, which was reflected in the creation of organizations as well as treaties or international conferences. In the following section we will go through some of the major changes in this area and improvements towards the consolidation of environmental policy at the center of the international agenda. Once having reviewed the origins and history of international environmental policy, we will proceed to analyse the characteristics of this policy addressing the complexity of environmental policy and its need to adaptate to a globalized world, especially bearing in mind the transnational consequences of human actions.

4.1.1. Origins of the international environmental policy

After World War II, the world went through economic expansion, which lasted until the beginning of the 70s. During this period of growth effects of anthropic activities on the environment started to be more visible, and subsequently it began what we can consider as the first global efforts to protect the environment. These efforts were directed at mitigating the damaging effects of human activities, focusing on the preservation of the environment and on a sustainable use of its resources. As decades later it will be argued by the sociologist Ulrich Beck, the modern industrial society implies intrinsic risks for the society.

The first attempt to give an international response to this problem was the creation of the International Union for Conservation of Nature (IUCN) in 1948. However, this was not enough and during the 60s new environmental movements emerged as a reaction to the consequences of the economic boom of the post-war period. We could say that the real movements and global action to protect the environment did not start until the beginning of the 70, coinciding with the recession of economic growth and the definitive integration of Environmental politics in the International Relations.

In 1968, it was created the Club of Rome, a Non-Governmental Organization regarding the environment. It was composed by scientists and politicians both sharing a common goal: create awareness about the effects human action was damaging earth and prompting climate change. The focus of their discussion was around the problem

of exponential demographic growth, economic expansion and the consequent depletion of Earth resources and the unsustainability of this situation. In 1972 they published the "Limits to growth" report, which had been commissioned to the Massachusetts Institute of technology in order to assess human interaction and the world environment. This analysis was based on 5 pillars: "population, food production, industrialization, pollution, and consumption of non-renewable natural resources" (Meadows, D. et al, 1972)⁴. The conclusion of this report predicted an economic collapse, showing that if humanity did not change the variables levels as they were in 1972, the world would collapse in 2072, achieving its growth limit. This report had a great impact at the time, receiving both positive opinions and critics. Fifty years later, the accuracy of this report has been proved, since unfortunately most of its predictions have occurred almost at the same time.

In the same year it was held in Stockholm, the first international conference on the environment, the beginning of dialogue between countries regarding this issue. The major achievement of this conference was the creation of the United Nations Environmental Programme (UNEP)⁵. However, since it is just a UN program, not an organization or even a specialized agency, it has no binding force, and cannot even make treaties, which undermines its power to take effective measures. Nevertheless, this was an enormous advance in the field. It led to the creation of a program to protect the environment worldwide, the development of international conventions and triggered support of developing countries towards implementation of policies of sustainability.

After this huge advance, in 1982 the UN adopted the World charter for Nature, which main feature is that it established five principles for the responsible development of human activities regarding nature. The core of these principles was setting legal ground to protect nature conservation and regulate human activity to exploit resources in a sustainable way. According to the developments on environmental protection carried out during the 80s, in 1988 the key role of scientists regarding climate change was consolidated through the creation of the Intergovernmental Panel on Climate Change (IPCC). This moment marked an inflection point, emphasizing the importance of knowledge to implement accurate responses to protect the environment and to analyse its impact on the economy and on society.

Culmination of efforts to create an environmental policy came true at the end of the 80s. A major progress putting environmental policy at the center of the international agenda occurred in 1987 with the release of the Brundtland report, also called "Our common future". This report brought for the first time the term Sustainable development, defined as "Sustainable development is development that

⁴ Meadows, D. et al (1972). *Limits to growth*. Potomac Associates-University books.

⁵ Robinson, N. (2008). "Evolving Earth's Environmental Law: Perspectives on a Work in Progress". *Foundations of environmental sustainability: The coevolution of science and policy*. New York: Oxford University Press, p.335.

meets the needs of the present without compromising the ability of future generations to meet their own needs". This term unified for the first time human action and nature within the same sphere, integrating environmental problems within social, economic and political ambit. This report constituted a critic to the world system based on standards of consumption and anthropocentric growth within capitalism. During its draft, at the World Commission on Environment and Development, breaches between industrialized and developing countries appeared, manifesting the need to not only adopt environmental protection measures but also to assure the further development of the less modernized countries⁶.

Within the draft of Brundtland report it is worth mentioning the differences that arose between developed and developing countries. Since industrialized countries are the major responsible for climate change, as a consequence of industrialization, environmental protection has been a major topic within these countries or regions, and action needed to protect the environment was focused in the analysis of these country's activities. Therefore, first measures discussion were developed within industrialized countries. This was inconceivable for industrialized countries, which claimed its unviability and the need to reflect the situation of less developed countries and their need to grow. Bearing this in mind, the final conclusions were that these measures should refrain richest countries from uncontrollably growing no respecting world resources. At the same time, these measures towards world sustainability should not be an obstacle for the developing countries to grow towards the modernity level of more advanced countries. This constituted the building of the principle of sustainable development mentioned above.

Later on, in 1992, it took place the Earth Summit at Rio de Janeiro, which meant a change for the global environmental paradigm, creating the United Nations Framework Convention on Climate Change (UNFCCC). Five years later the Kyoto Protocol was adopted, enlarging the responsibilities laid out in UNFCCC, committing states parties to reduce greenhouse gas emissions. Also within the framework of UNFCCC and enlarging the responsibilities of the Kyoto Protocol, in 2015 the 196 states adopted the Paris Agreement. The aim of this agreement enlarged the previous ones since it aimed not only to decrease greenhouse gas emissions, but to achieve the world's climate neutrality by the mid of 21st century. The main goal of this agreement is to keep the global temperature rise below 2°C compared to preindustrial levels.

Later developments were made in the international area regarding environmental policy, however, they will not be analysed in this work since the object of this section is to determine the development of this policy and its escation to the center of international policy. The Rio Summit in 1992 and the subsequent creation of the United Nations Framework Convention on Climate Change can be considered as the

⁶ Vargas-Alzate, L. F. y Velázquez Gutiérrez, J. M. (2014). El surgimiento de la política global ambiental. OPERA, 15, pp. 107-125.

culmination of efforts to consolidate environmental policy at the international level due among other things to the participation of 178 States⁷ and many representatives of non governmental organizations.

It is worth to mention that during efforts to achieve a better consolidation of this policy major treaties were reached for the protection of the environment, as the International Convention for the Conservation of Atlantic Tunas in 1966, the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) in 1980, or the Convention on Nuclear safety in 1994.

4.1.2. Characteristics of environmental policy and its development within a globalized world

As we can observe, international environmental policy has gone through a complex process of evolution, which has developed into a different governing system than the traditional one. Global governance in general has changed over the last few decades, but its effects are accentuated within the environment policy due to the different actors that intervene and the areas affected. It has passed from being mainly interaction between nation-states to gain complexity involving many other non-state actors. This complexity in global governance is a response to the changing world we live in, a response to the increasing globalization of modern society⁸. This aspect is emphasized by the transnational character of environmental concerns. Multi-actor governance makes it very difficult to analyse, especially in such a recent area such as environmental politics, where in a very short period of time many factors have entered into play, sometimes overlapping each other.

Unlike traditional governance, environmental governance is not defined as an intergovernmental regime, but rather a complex one within a framework of public-private governance. The increase of the importance of private actors⁹ has also determined environmental governance, with private actors directly affecting in many cases decisions and rule-making. This new aspect characteristic of environmental governance is seen as controversial by some, since most powerful private actors are placed in industrialized countries, involving one more time measures more favorable for these countries and opening a debate between the differences between these countries and how to address them regarding environmental protection.

As mentioned before, non-state action has gained great importance in environmental politics, remarking button-up relevance in adopting and implementing

⁷ Ruíz de Elvira, M. (1992, 15 de junio). "Más de 150 países firman en Río unos tratados sin compromisos concretos para sus Gobiernos". Río de Janeiro: El País (online). Accessed on 8/02/2021. Available at: https://elpais.com/diario/1992/06/15/sociedad/708559217_850215.html

⁸ Biermann, F (2014). "Global Governance and the Environment". *Advances in International Environmental Politics*. New York: Palgrave Macmillan, p.245-273.

⁹ Clapp, J. (2014). "International Political Economy and the Environment". *Advances in International Environmental Politics*. New York: Palgrave Macmillan, p.116.

measures protecting the environment. These actions are mainly organized by society organizations at sub national level or by non-state organizations. As mentioned before, criticism of the globalized capitalist system mainly came from the industrialized countries causing more damage, therefore, non- state action has a special presence in these countries. These initiatives have direct impact for adopting new measures or even creating new multilateral institutions to fight climate change. Regarding implementation, non-state action has proved to be even more useful than traditional means, putting pressure on governments and multinationals to accomplish goals set on treaties¹⁰. Up to this point, it's worth mentioning the importance of society setting standards and its role for the development of business responsibility. These actions are gaining recognition among governments and are seen as complementary to multilateral agreements. In fact, coordination with non-state action was at the core of the Paris agreement, 2015, recognizing its role and importance at international level and seen cooperation as essential to achieve the objectives of greenhouse gas emission reduction.

This complex framework creates the main problem of environmental policy: fragmentation of global governance architecture, understanding global governance architecture as “the overarching system of public and private regulations and decision-making procedures - that is organizations, regimes and other forms of principles, norms, regulations and decision making processes- that are valid or active in a given issue area of world politics” (Pattberg, P. 2013)¹¹. The amount of diverse actors at different levels, creates a regime complex where institutions or actions overlap each other, occurring especially between the international and sub-national level. This fragmentation occurs both vertically, at a multipolar level (supranational, international, national, and sub-national) and horizontally (parallel rule-making systems by different actors). This jeopardizes the effectiveness of measures taken at different levels.

Around fragmentation of global governance one question arises: does the world need a World Environmental Organization? Many argue the need of a more independent and powerful body for environmental policy, emphasizing that such bodies exist for other areas, like the World Trade Organization, the World Bank or the International Labor Organization. Today's environmental policy lacks binding force, jeopardizing enforcement, which relies on states' voluntary compliance. Bearing in mind the importance of climate change fighting in our century, the creation of a world environmental organization is seen as essential, unifying criteria and above all gaining legal power to adopt treaties and binding force, which would also ease the task of norm-implementation.

¹⁰ Chan, S. et al (2015). “Reinvigorating International Climate Policy: A Comprehensive Framework for Effective Nonstate Action. *Global Policy*”. *Global Policy*, Volume 6, Issue 4. p.466-473.

¹¹ Pattberg, P. (2013). *Fragmentation of Global Environmental Governance Architectures*. Amsterdam: IVM Institute for Environmental Studies, p.7.

4.1.3. Schools of thought of environmental policy

For a better understanding of the development of international environmental policy over the last decades, we cannot forget the parallel and previous forge of some theories of International Environmental Politics (IEP), being these ones organized like most theories of International Relations, that is centered around four different perspectives: realism, structuralism, liberalism, and critical theories (green theory). According to Matthew Paterson there are six main characteristics common to these theories: “international anarchy as a driver, capital accumulation as the central driver, knowledge as central to responses to environmental problems, IEP¹² characterized by complexity and plurality, structural inequalities as enduring obstacles, and the search for sustainability as the overriding question” (Paterson, M. 2014)¹³. In this section we will focus on three main trends analysed by Matthew Peterson regarding International environmental policy. These three perspectives are: anarchist, following realism; capitalist approach based on structuralism and Marxism; and finally a pluralist perspective based on the multi-actor participation on international environmental policy.

Anarchists center their debate around the lack of a global authority, remaining states as individual actors acting for their own interest. This theory brings to light the dilemma this supposes for environmental policy, being climate degradation not an individual problem of each state, but rather a transnational one affecting globally all the countries. Individual interests of states look for their own good, therefore colliding with a responsible use of resources and pursuit of global sustainability. This theory is led by the “Tragedy of the Commons” formulated by Garret Hardin in 1968, explaining the overuse of resources. This theory explains climate degradation arguing that following individual interests, in this case interests of each state or region, will use more resources than their share in order to fulfill their immediate needs and interests. In a world with limited resources this will inevitably lead to its overuse and degradation of the environment. However, anarchists see light in cooperation among states, for which institutions have a great role trying to pursue the common good.

On the other hand capitalist approach centres its perspective on capitalist society, recognizing the origin of environmental degradation in accumulation and economic growth characteristic of this socio-economic system. According to this theory the Industrial Revolution started a process of production and need of constant growth, subordinating development and capital to natural resources. Therefore environmental protection from this perspective becomes an arduous task, since a capitalist society needs to promote both economic growth and measures protecting the environment.

¹² International Environmental Politics.

¹³ Paterson, M. (2014). “Theoretical Perspectives on International Environmental Politics”. *Advances in International Environmental Politics*. London: Palgrave Macmillan, p.46.

The balance between these two aspects is key for the development of environmental policies.

Contrary to the anarchist theories, a different theory emerges focusing on the changing paradigm of global policy and the appearance of new actors altering interstate relations. The pluralists do not see the lack of a central authority as an issue, since from this approach a global governance is still possible through institutions and a hierarchical authority. They consider the multi-actor paradigm as the best way to approach the development and function of international environmental policy. This perspective analyses IEP from the interaction of actors as a set, considering this cooperation as key to environmental policy development, emphasizing the strength of a pluralism in this area rather than its weakness.

4.2. Implications of the International environmental policy in the European Union

European Union environmental policy has been developed alongside with international progress in this area, whether parallel to it or directly contributing to international advances. Bearing this in mind we will see an analogue development of the international environmental policy and the European one. We can observe this parallelism in some actions, as for example the beginning of European environmental policy consolidation one year after the report “Limits to growth” mentioned in the previous section. The European Union has also engaged in many international treaties negotiated by the United Nations which has reaffirmed its compromise to protect the environment and the need of international cooperation with this end. Some of the international treaties ratified by the Union regarding environmental policies are: Convention on Climate Change (UNFCCC) in 1992, Convention on the Protection of the Alps in 1991 or the Protocol on Biosafety to the Biodiversity Convention in 2000¹⁴.

European environmental policy commenced to be created at the beginning of the 70s, when in 1972 the first call was made for a European environmental policy. During the next year the European Union adopted the first Environmental Action Programme, starting the development of an environmental Community policy that would become over the years in one of the central areas of action of the European Union.

During the previous years to 1972, some actions had been taken to protect the environment; however, they could not be considered as policy and were parallel to the economic goal to create a common market. Thus, these previous measures disregarded many important environmental damages. In line with this, the adoption in

¹⁴ European Commission (2017). Multilateral environmental agreements to which the EU is already a Party or a Signatory. European Commission. Accessed on 13/12/2020. Available at: https://ec.europa.eu/environment/international_issues/agreements_en.htm

1973 of the first Environmental Action Programme was decisive since it outlined the objectives, principles and priorities of the Union. This established the foundations of the future European environmental policy, although the European Union had no explicit power to regulate environmental matters, since this was not included in the original treaty.

It was not until 1986, with the Single European Act, with the creation of a constitution for Europe, that the legal bases for European legislation in environmental matters was set. The European Constitution established some of the most important principles of European environmental policy and to reinforce its legislation it conferred some specific powers to the Council on this matter.

The Maastricht Treaty 1993 made a big step by including the protection of the environment among the objectives of the European Union. The treaty of Amsterdam also marked an inflection point related to the objectives of the Union, including Sustainable development. The importance of these treaties relies beyond their direct implications, proving the aim of the European Union to grow further its original objectives of the economical market. During the same year the European Environmental Agency was established.

A proof of the new unity of Europe towards environmental policy was the signing in 1997 of Kyoto protocol by the European Union as a whole. However, there was some disagreement among its member states and some reforms had to be done to comply with the objectives agreed to reduce emissions of greenhouse gases. Despite this progress, Lisbon Strategy 2000 collided with environmental aims, calling for an ambitious plan of economic growth and development trying to foster Europe into the first world economy. At the beginning the focus was on economic and social circumstances, but one year later, and according to the progress the union had made until that moment, a third dimension was incorporated, including environmental aspects.

During the beginning of the 2000s the European Community went through an expansion that would test its strength at all levels. The inclusion in the Union of 12 more state members, going from 15 to 27, was a complex change regarding environmental policy. There existed huge disparities between the old and the new members, especially regarding economical resources. Despite the challenge this posed to the European community, it also gave it the opportunity to expand its influence on environmental protection through the continent and even globally. In this regard it's interesting to highlight the international ambition of the European Union.

Treaty of Lisbon 2009 did not make any substantial change but reaffirmed the Union towards environmental protection and reaffirmed one more time the union's aim to be a leader in this area. Article 4 of the treaty established that environmental policy should be a shared competence between the Union and the Member states.

The international importance of the European Union is reflected in Article 3 of Treaty on European Union: "In its relations with the wider world, the Union shall

contribute to the sustainable development of the Earth”¹⁵. On the other hand, and supporting the previous one, article 21 of the same treaty states that: “The Union shall define and pursue common policies and actions, and shall work for a high degree of cooperation in all fields of international relations, in order to: (d) foster the sustainable economic, social and environmental development of developing countries, with the primary aim of eradicating poverty; (...), (f) help develop international measures to preserve and improve the quality of the environment and the sustainable management of global natural resources, in order to ensure sustainable development”¹⁶. It is worth mentioning the leading role of the European union in negotiating international agreements and its constant endeavor to boost integration of environmental protection and sustainable development in its global matters, which is included in article 191.4 of the Treaty on the Functioning of the European Union. The Union also seeks to consolidate its standards and objectives of environmental matters through the implementation of these ones within its member states. Assuming that pressure from the Union to comply with its values plays off, it would have a positive effect on its global position on the environment, acting as an example for the global community.

At this point remarking the international role of the Union on environmental leadership, some paradoxes should be mentioned: “leadership in a governance system that is leaderless, external “actorness” and internal diversity, policy harmonization and differentiated burden sharing, ambitious targets but constrained policy instrument choices, escalating ambition but constrained implementation capacities” (Jordan, A. et al. 2012)¹⁷. Especially draws the attention of the first one: “leadership in a governance system that is leaderless”. This statement outlines the controversial role the European Union aims to have on the international field, aiming to act as a compact unity when in fact the internal reality is a much decentralized organization. European powers on environmental policy are quite limited and as it will be analysed further on proper implementation depends on member states. This calls into question whether the European Union is indeed prepared to assume this global role.

It should be mentioned the importance of Environment Action Programs (EAP) adopted by the Union in order to define its environmental policy in a long term, establishing European environmental strategy for a period from 3 to 10 years. So far there have been adopted 7 Action Programs:

¹⁵ Treaty of European Union. Treaty of Lisbon 2009 Official Journal of the European Union. Title I: Common provisions, article 3.

¹⁶ *Ibidem* Opus Cit. 13.

¹⁷ Jordan, A. et al. (2012). “Understanding the Paradoxes of Multilevel Governing: Climate Change Policy in the European Union”. *Global Environmental Politics*. MIT Press, vol. 12 no. 2, p. 43-66.

Figure 1: Environment Action Programmes (EAP).

1st. Environment Action Programme 1973-1976	Outlined principles and objectives of European environmental policy. Areas covered: air and water.
2nd. Environment Action Programme 1977-1981	Propelled the establishment of pollution minimum standards. Areas covered: air and water.
3rd. Environment Action Programme 1982-1986	Introduces policies for pollution reduction and control. First use of the “sustainability” term in European environmental policy. Concerns about the effect of environmental policy in the internal market.
4th. Environment Action Programme 1987-1992	Sectoral approach analysing the impact of other areas on the environment. Concerns about environmental policy implementation among European countries
5th. Environment Action Programme 1993-2000	Sustainable development at the center of environmental policy strategy. Pead for more integration of environmental concern into other sectors.
6th. Environment Action Programme 2002-2012	Four priority areas: “climate change; nature and biodiversity; environment and health;...,sustainable management of natural resources and waste”. Adopted by the Council and the European Parliament.
7th. Environment Action Programme 2014-2020	Long-term sustainable goals towards 2050. Objectives: - Natural capital - Green growth - Health and wel-being Development of: Union’s climate and energy package, EU Biodiversity Strategy to 2020...
8t. Environment Action Programme 2021-2030	Perpetuates objectives towards 2050, supporting the objectives of the Green Deal. Focus on effective implementation of environmental policy. It is included in the European strategy to pursue the Sustainable Development Goals of the United Nations’ 2030Agenda.

Source: own creation from European Commission (2020).“The evolution of the EU environment and climate policy framework: from the 6th to the 7th EAP”. & European commission (2019). “Environment Action Programme to 2030”.

This table shows the development. of European environmental policy, gradually increasing its commitment with environmental protection From this table we can deduct the parallel advancement in European environmental policy along with international developments. The first Environment Action Programme was

established in 1972, after the Stockholm Conference on the Environment, and at a time that scientific research was starting to show the damaging effects of human action on the environment¹⁸. The first mention of “sustainability” in the 3rd Environment Action Programme took place just a few years before the international establishment of “sustainable development” within the Brundtland report, showing an international increase of awareness regarding the effects of human activity and the need to appropriately use natural resources.

Regarding the 7th Environmental Action Program, its analysis is crucial in order to analyse the most recent strategy of the European Union and its approach to new environmental challenges looking to the future. In this period, the strategy established had as a main objective leading the European Union towards sustainability in 2050, focusing on the progressive de- carbonization of the Union, the protection of the environment and becoming resource efficient¹⁹. Within this period of 2014-2020 the program Horizon 2020 was developed, center on investigation and innovation in order to propel the competitiveness of Europe worldwide regarding sustainable development (European Commission (2015))²⁰. The next period will also focus the strategy of the Union in a long term, addressing goals for 2050. This period will go from 2021 to 2027, and will be led by the European Green Deal, which will be discussed later in this work in section 5.4.

Once we have clarified the origins of both international and environmental policy we will proceed to analyse the specific case of the European Union and its functioning. We have established the main dates and events that led to the consolidation of environmental policy in Europe; therefore it will be easier to understand now the development of the bases and general principles of this policy as well as its challenges over time.

5. From the global to the particular: environmental policies in the European Union

After this insight into the general framework of environmental policy, analysing international developments and the parallel European advancements in this field, we will deepen into the center of our study: effectiveness of European environmental policies. In contemplation of the objective of our study, the focus will be centered in three main aspects. First, an examination of European legislation will be needed, both

¹⁸ European Commission(2020).“The evolution of the EU environment and climate policy framework: from the 6th to the 7th EAP. Trinomics, Issue Specific Paper Number 2. Accessed on 23/02/2021.

¹⁹ European Commission (2015). “Environment Action Programme to 2020”. European Commission. Accessed on 25/01/2021. Available at: <https://ec.europa.eu/environment/action-programme/>

²⁰ European Commission (2015).“What is Horizon 2020?”. European Commission. Accessed on 8/02/2021. Available at: <https://ec.europa.eu/programmes/horizon2020/what-horizon-2020>

in general and in particular environmental provisions, in order to determine the framework of action of the European Union. Following this line, we will study the implementation of the integration principle within the Union, addressing the difficulties this presents due to a decentralized system. Finally, the new European Green Deal 2022 will be examined, exposing how the Union positionates regarding environmental protection strategy for the future five years.

5.1. Bases and general principles of the environmental policy of the European Union

Development of European policy has been linked to legal developments of the Union incorporated in the different treaties that conform it. When analysing European environmental policy we should take into account the application of general principles²¹ of the Union in this area, which delimit European action. Regarding specific provisions on environmental policy articles referring to objectives and principles of environmental policy will be at the core of our analysis in this section, establishing the main patterns of action.

The European Union has always seen its action limited to the principle of conferral, now embraced in article 5 of the Treaty on the European Union. According to this principle the European Union shall act only on the competencies conferred by Member States²², being these ones collected on the treaties, and always in accordance with the objectives established. The principle of conferral is also determined by the principle of subsidiarity and the principle of proportionality. The first one opens a window for the Union to act on areas that do not fall under its exclusive competence in situations where the Member state cannot achieve the objectives by itself and they will be better pursued jointly. The second one, principle of proportionality, aims to control the power of the Union limiting its action to what is strictly necessary to achieve the objectives in that area. Once having set this background, it is clear the need of a legal base for the Union to act in any area. We will therefore briefly analyse the legal bases for the Union to take action and to be able to regulate environmental policy at the European level.

As mentioned previously, the legal bases for the Union to regulate environmental policy were set on the Single European Act in 1986, including objectives and principles regarding environmental protection. These principles are considered as

²¹ Gutiérrez, M.V. (2013). "Objetivos y principios fundamentales de la política ambiental europea". *Revista Internacional del Mundo Económico y del Derecho* Volumen VI, p.37-69

²² Regarding this point we should take into account the changing composition of the Union, increasing its Member States over the years: Germany, Belgium, France, Italy, Luxembourg, Netherlands (1958); Denmark, Ireland, United Kingdom (1973); Greece (1981); Spain, Portugal (1986); Austria, Finland, Sweden (1995); Czech Republic, Cyprus, Slovakia, Slovenia, Estonia, Hungary, Latvia, Lithuania, Malta, Poland (2004); Bulgaria, Romania (2007); and Croatia (2013). The United Kingdom left the Union 31 January, 2020. The European Union is now composed by 27 countries.

general principles, acting as clarifiers of other norms since they have to be interpreted in the light of these values. They were first consolidated as principles of the European environmental policy within the Single European Act on article 130 (r.) under Title VII, addressing the environment, to “protect the environment...protecting human health, and ensure a prudent and rational utilization of natural resources”²³. The principles established here were: the principle of prevention, damage should be rectified at source, the polluter pays principle. This article also set the base for the integration principle: “environmental protection requirements shall be a component of the Community’s other policies”²⁴.

However, it was not until the Treaty of Maastricht that the environmental policy became officially a policy of the European Union within article 174 of the Treaty establishing the European Community: “Community policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Community”²⁵. The Treaty of Amsterdam moved the principle of integration into one of the main objectives of the Community regarding environmental policy²⁶, being included in article 6, which will be further analysed later on this work.

As we can observe, legal bases establishing a European environmental policy have evolved over the years within the different treaties that regulate the European Union. At present they are compiled under articles 11 and 191-193 of the Treaty on the Functioning of the European Union, revised by the Treaty of Amsterdam in 1997 and last revised in 2009 in the Treaty of Lisbon. Mentions of principles governing environmental policy are included within this treaty in article 11 (ex article 6 TEC) and article 191 (ex art 174 TEC), being further developed in article 192 and 193. Article 191.2 lays down the principles that guide environmental policy: “Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay” (European Union, 2016)²⁷. We cannot find a definition of all

²³ Single European Act (1986). Official Journal of the European Communities. Title VII, article 130 (R.). <https://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:11986U/TXT&from=GA>

²⁴ Single European Act (1986). *Ibidem* Opus cit.19

²⁵ Treaty of Maastricht (1992). Treaty on European Union. Official Journal of the European Union. Accessed on 17/01/2021. Available at: https://europa.eu/european-union/sites/europaeu/files/docs/body/treaty_on_european_union_en.pdf

²⁶ Transworld (2013). The Transatlantic Relationship and the future Global Governance. Working paper.

²⁷ European Union (2016). Consolidated version of the Treaty on the Functioning of the European Union. Official Journal on the European Union. Accessed on 16/12/2020. Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:9e8d52e1-2c70-11e6-b497-01aa75ed71a1.0006.01/DOC_3&format=PDF

these principles within the treaties of the European Union, however, a definition can be found in other international instruments.

The precautionary principle objective is to avoid any action that might damage the environment. Many times we cannot predict the effects something can produce, but according to this principle, if there is a suspicion it might threaten the environment such action should not be carried out. This basic rule also applies when clear scientific evidence does not exist. We can find the definition of this principle under principle 15 of Rio Declaration 1992: “Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation” (United Nations 1992)²⁸ or article 3 of the United Nations Framework Convention on Climate Change (UNFCCC): “The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects” (United Nations 1992)²⁹. Despite it can be implemented without clear scientific evidence, the decision should be supported by scientific evaluation. In many occasions the precautionary principle has been used by the Union to address risks related to technologies. Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) calls for industry responsibility on chemicals management, demanding for them to recognize the risk and implement the measures needed, as well as substitute the use of hazardous chemicals when possible.

Following the list of article 191, the preventive principle aims to avoid the damage from the beginning, refraining to execute the action that would cause the harm. Therefore this principle needs the implementation of some measures to ensure the danger is avoided. This might include measures such as reporting the possible negative effects of building an infrastructure or to impose restrictions on the transportation of toxic waste. It is important to remark the economic implications of these measures, since they avoid a much higher cost that could occur if the damage is produced and its alleviation has to be paid³⁰. We can find an example of the execution of this principle within the European Union on Regulation (EU) 2017/852 protecting human health and the environment from exposure to mercury and mercury compounds. This regulation aims to protect human health and the environment, banning among other things the “export, import and production in the EU of mercury-added products”(Regulation 2017/852)³¹

²⁸ United Nations (1992). Rio Declaration on Environment and Development. United Nations. Accessed 14/01/2021. <https://www.jus.uio.no/lm/environmental.development.rio.declaration.1992/portrait.a4.pdf>

²⁹ United Nations (1992). United Nations Framework Convention on Climate Change. United Nations. Article 3. Accessed on 16/12/2020. Available at: <https://unfccc.int/resource/docs/convkp/conveng.pdf>

³⁰ European Commission (2012). Slides: “Workshop on EU legislation. Principles of environmental law: The Preventive and Precautionary principle”. Accessed on 26/12/2020. Available at: https://ec.europa.eu/environment/legal/law/pdf/principles/9%20Preventive%20and%20Precautionary%20Principles_revised.pdf

³¹ European Commission (17 May 2017). Regulation (EU) 2017/852. European Commission. “Protecting human health and the environment from exposure to mercury and mercury compounds”.

The objective of the principle rectification at source is to enforce correction measures once the damage is produced. Action to reverse the contamination produced should not only be taken at the place it occurred but also at the moment it does. Therefore this principle implies to act fast and at the proper place, in order to prevent the damage from aggravating and to reach other areas. Bearing in mind the important consequences of this, all resources and technology should enter into play. Directive 2002/49/EC relating to the assessment and management of environmental noise exemplifies this principle trying to address the problem of noise produced by vehicles, industry equipment or other mechanisms at its source. Due to the difficulty of completely eliminating noise, it puts special focus on more sensitive areas to address this problem. Therefore, this Directive aims to rectificate the problem identifying specific areas of action: “built-up areas, in public parks or other quiet areas in an agglomeration, in quiet áreas in open country, near schools, hospitals and other noise sensitive buildings and areas” (Directive 2002/49)³²

Finally on the list, the polluter pays was implemented in the Environmental Liability Directive. It aims to ask for responsibility for those causing environmental damage. It aims to raise awareness about the fragility of the environment, and specially to hold responsibility on those that externalize the cost of their activities. It is assumed that if polluters have to pay for the environmental damage produced they will be more careful about that. For example, if an industry that emits toxic gases to the atmosphere has to hold responsibility for the damage caused to the environment and to the people living nearby, it will probably prefer to adopt greener practices. However, the implementation of this principle is challenging and it is barely used³³ due to the great economic burden it would imply for the polluter, not to mention the problems of determining who the polluter is³⁴. Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage³⁵, lies down the basis for the polluter pays principle, defining environmental damage and the situations which create liability.

There are also other principles regulating environmental policy that are not specified in that paragraph. Article 11 of the Treaty on the Functioning of the

Accessed on 19/02/2021. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=legisum%3A4301058>

³² European Commission (25 June 2002). Directive 2002/49. European Commission. “Relating to the assessment and management of environmental noise”.. Accessed on 19/02/2021. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002L0049&from=EN>

³³ Academy of European Law (2019). Principles - Principle of Polluter-pays. Accessed on 17/12/2020. Accessed on 20/02/2021.

³⁴ For example, to ask for liability of a car’s contamination we could deem responsible different parts intervening in a car functioning, from the initial producer to the fuel company or the consumer.

³⁵ European Commission (21 April 2004). Directive 2004/35. “On environmental liability with regard to the prevention and remedying of environmental damage”. European Commission. Accessed on 20/02/2021. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3A128120>

European Union aforementioned, calls for integration of environmental policy into all other relevant policies of the Community. It was first established at the core of the Community Policy at the Cardiff process in 1988, which we will develop further later on this work. Along with this principle we can find the concept of Sustainable Development, which has gained more importance over the years becoming one of the main environmental strategies of the Union. It can be seen as in parallel development with the integration principle, since it aims to coordinate both economical and environmental concerns. Finally, Public Participation rights regarding the environment were recognized at the Aarhus Convention in 1998, which included 40 European States. The base of this principle is to facilitate information regarding the environment to the public and to improve the role of the public in the process of decision-making of environmental policy.

5.2. The European Union, a common territory: integrating environmental principles into other policy areas of the Union

The principle of integration was first addressed by the Union in the 1st European Act Program, and kept being developed within this framework. It was included as an objective of the Union for the first time in the Single European Act in 1986 in article 130R: “Environmental protection requirements shall be a component of the Community's other policies” (Single European Act, 1986)³⁶. Six years later it was embraced by the 5th European Act Program, which called for environmental integration in five crucial areas: “agriculture, energy, industry, transport and tourism”. The Cardiff process during 1996 and 1998 put the integration principle at the core, establishing the European Council as a supervisor and aiming to implement integration among the Community institutions and its member states. In 1998 the Commission submitted a Communication on “Partnership for Integration”, asking for environmental integration in all community policies and activities. Later on, the aim of the Union was reflected on the treaty of Maastricht 1992 and on the treaty of Amsterdam 1997. The last one moved the principle of integration from article 174 of the Treaty establishing the European Community (see part 5.1) to article 6: “environmental protection requirements must be integrated into the definition and implementation of,...., Community policies,...., in particular with a view to promoting sustainable development” (Treaty of Amsterdam, 1997).

However, with the Lisbon strategy in 2000 the focus moved again from sustainable development to economic growth, which crashed for some time the efforts to implement environmental integration. Nevertheless, during the 2000s, governments and citizens became more aware of the importance of protecting the environment and efforts to integrate environmental concerns were placed at the core of member states' agenda. With the revision of the Treaty on the Functioning of the European Union in

³⁶ Single European Act (1986). *Ibidem* Opus cit. 18

Lisbon 2009, the principle of environmental integration (ex article 6 of the the Treaty establishing the European Community) became article 11 of the Treaty of the Foundation of the European Union: “Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development” (European Union, 2016)³⁷.

Besides the different legal instruments of the Union to strengthen this principle, support can also be found in international literacy. The first international recognition was in the Stockholm Declaration in 1972, in which among other 109 recommendations for the environment it stated that “Integrated development planning is needed” (United Nations 1972)³⁸. Also another definition in accordance with the interpretation of the Union of this principle can be found in the Rio declaration 1992 in principle 4, which states that “In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it” (United Nations 1972)³⁹.

Integration is not exclusive for environmental protection, during the last decades the intrinsic connection between different policy areas has been demonstrated and ingrained among the European Union. This can be found in many areas, for example, the need to integrate digitalization among health resources. In the case of environmental policy this task has a great importance and impact, and its complexity makes it necessary to include environmental concerns in all policy sectors. To analyse the level of integration of environmental policy, we will define sector as a concept “to distinguish actor constellations and functional logics of certain policy problems”⁴⁰ and that “reflects the horizontal fragmentation of politics. Being organised along issue areas across vertical political levels, developed policy sectors have their defined realms that are governed by specific actors with particular interests” (Trein, P. and Braun, D, 2015)⁴¹

Environmental integration has to address the tridimensional scope of environmental policy, which affects not only the environment but also economical and social factors. Due to the relation between these three dimensions it is indisputable the need to integrate environmental policy, not only for its effective implementation but to balance environmental, economical and social policies, trying to avoid gaps or contradictions among them. This way the Union ensures its intervention on the different areas that conform the environment, coordinating the

³⁷ Single European Act (1986). *Ibidem* Opus cit.16.

³⁸ Declaration of the United Nations: Conference on the Human Environment (1972). Stockholm. Accessed on 5/01/2021. Available at: https://www.urv.cat/media/upload/arxius/catedra-desenvolupament-sostenible/Declaracions%20VIP/1972_-_stockholm_declaration.pdf

³⁹ United Nations (1992). *Ibidem* Opus cit.19

⁴⁰ Trein, P. and Braun, D (2015). “Coordination of Policy Sectors”. European Consortium for Political Research. Abstract. Accessed on 2/02/2021. Available at: <https://ecpr.eu/Events/Event/PanelDetails/1115>

⁴¹ *Ibidem* opus cit.20

different sectors pursuing a coherent policy looking towards the same objective. This need is emphasized by the decentralization of the European Union and the weak communitization of crucial sectors such as energy or tourism, in which states still hold most of the power to regulate. Therefore, Community Law must be transposed into a national policy in the 27 countries that compose the Union to be implemented. However, each country or region has its own peculiarities, whether they are administrative, cultural or institutional. Community Law might therefore not be transposed the same way in different countries or regions of the Union, adapting to the environment and necessities of each of them. The need to allow for flexibility and implement integration according to the needs of each country or region is reflected in article 191.2: “Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union” (European Union, 2016)⁴².

Special focus needs to be put on economic policies, since it is the base of the activity of the Union and integration of environmental concerns in this area is crucial. As we will see later, the economic dimension is the most affected one, and needs to implement policies such a circular economy or promoting efficient clean transport.

5.2.1. Different interpretations of the integration principle

Despite the commitment of the Union to integrate environmental concerns, it is important to bear in mind the difficulty to implement this principle specially among the fragmented structure governing European Environmental Policy. The main obstacles can be found in general implementation concerns, however, understanding the different interpretations of the principle might help us focus the problem, and to find solutions tied to the instruments used for its implementation.

Within the work of André Nollkaemper, University of Amsterdam, we can find keys to clarify some legal aspects of the principle, basing his approach on three different concepts of integration. The principle has to be analysed as one not only applying to the European Union but also individually to each Member State. There have been some problems to properly implement integration of environmental concerns into other policy areas. The main issue can be found at its broad interpretation and its consequent lack of power to be fully enforced by Member States (this can also be the other way around). According to the author this problem may arise from different interpretations of the principle in environmental policy, which are divided into 3 conceptions: the integration principle as an objective, as a rule of reference or as an autonomous principle.

The integration principle seen as an objective is merely saying that the integration of environmental concerns should be embedded in other policies. It does not turn the principle into something compulsory, but rather into a policy that guides other areas.

⁴² European Union (2016). *Ibidem* Opus cit.17

The lack of strength of the principle from this point of view will make it very ineffective, since restrictions cannot be imposed. From the legal point of view the Court will have little to do since it is just a guideline, not a compulsory behavior and it will be very difficult to punish just for not trying to pursue this objective. The objective conception would interpret integration as a policy which could lead to the formulation of legal rules in other areas, but not to the formulation of integration as a legal rule by itself.

The conception of this principle as a rule of reference means that the principle is not seen as a rule, but as linked to other rules. Therefore the role of the principle of integration here will be that of incorporating basic rules of environmental protection (art174) into other policies. Considering this, sectoral policies will have to be guided by other rules of environmental law, reconciling areas such as industry or tourism with environmental objectives, principles and values. Consequently, from this point of view, the problematic implementation and enforcement should not be analysed on the principle of integration, but rather on the environmental requirements specified in the treaties.

Although these two conceptions are valid, the most spread and accepted one is the conception of the principle of integration as an autonomous principle. The difference with the first too is clear: it has autonomous normative. It is not seen as an objective or as related to existent rules, from this point of view the principle of integration is seen as a principle by itself. It simply asks for integration of environmental needs into other policy areas. This is unusual in international law, since it asks for the implementation of non legislated norms, understanding this as the protection of the environment as a whole. Understanding integrations as a principle of the European Community could create a legal obligation on the Community and on its member States, however this is not clear and the debate is still open.

The conception of the principle of integration as an autonomous normative has several implications on the Community and its member states. Due to fragmentation in international and European environmental law, many gaps can be created. If such gaps exist, that particular area is not governed by the European Union, in which case, according to the Lotus principle (footnote), states can act without restrictions. Considering the principle of integration as an autonomous normative will help to fill the possible normative gaps, trying to restrain the action of states in environmental matters and make sure the policy of the Union is being implemented and its objectives pursued. Also, if there are not normative gaps, the principle of integration has proven to be very useful when two norms collide, for instance between environmental protection and international trade.

5.2.2. Instruments for the implementation of the principle of integration

Besides the different concepts of integration, some other aspects are important in order to determine the difficulties to implement the principle of integration among the members of the Union. Despite the difference of implementation between regions,

due to the different characteristics of each one, we can recognize main different instruments that help its implementation. According to a study made by Klaus Jacob, Axel Volkery and Andrea Lenschow; instruments addressing the implementation of integration can be divided into three categories: communicative, organizational and procedural⁴³.

Communicative instruments are implemented within the current policy structure of a country. They do not imply major changes, they just consist of adding some rules to the existing structure that will ensure the integration of environmental concerns is considered within the policy of that country. They can be an addition to the constitution on environmental policy, a report, or a new national strategy on environmental protection. They basically communicate the commitment of the government to pursue the environmental integration in its policy areas. Among communicative instruments we can find sectoral strategies, which involve the integration of concerns of a policy into another, in this case incorporating environmental concerns into another policy sector (Hubo, C. and Kaufer, R. 2014)⁴⁴, but in a very specific area, for example regulating the sustainability of transportation used in agriculture. Usually this strategy is developed within the affected department, which is responsible for including objectives and instruments and indicators to follow the success of integration and is supervised by a central body. It must be noted that since integration strategies are developed by each specific department, environmental actors are left out, which compromises the effectiveness of these policies and the subsequent reports on improvements. Countries that use this resource a lot can be the UK, Poland or Finland.

On the other hand, organizational instruments consist of the rearrangement of the actors involved, for instance, reorganizing a department. This amalgamation of departments allows a better management of environmental integration concerns into other policies, having direct access to regulate. This measure requires a higher structural reorganization, and therefore it is not commonly used among countries.

The aim of procedural instruments is to make changes that have a more direct effect on policy, giving more power to a department or establishing a green budget. Green budget aims to reallocate and invest resources in implementing actions towards the integration of environmental concerns in different areas. The European Union green budget is mainly dedicated to establish reforms in national programs to implement the Community environmental policy and to ensure that all European programs and structures are developed within a framework of environmental

⁴³ Jacob K., Volkery A. and Lenschow A. "Instruments for environmental policy integration in 30 OECD countries". *Innovation in environmental policy integration*. Great Britain: MPG Books, 2008, p.24-66.

⁴⁴ Hubo, C. and Kaufer, R. (2014). "Selective Policy Integration as a Strategic Modus of Coordinating Policy Sectors: Examples from Nature Conservation and Land-Use Policies in Germany". *European Consortium for Political Research. Abstract. Accessed on 2/02/2021. Available at: <https://ecpr.eu/Events/Event/PaperDetails/2914>*

integration and responsibility. This spending is controlled by the Parliament, that analyzes if the budget expended is giving the expected results. Another measure within the procedural instruments is the Environmental Strategic Assessment (SEA), to evaluate the correct integration of Environmental concerns. Europe has a system for assessment, but it only applies to member states not being applicable at the Community level.

As we can see integration of environmental policy into other areas is developed within the decentralized strategy of the European Union. If the objective of the Union was to homogenize national policies according to European policy, this would be a terrible strategy. However, since the European Union does not seek homogenization, but to pursue the same objectives among the policies of the Member States, this strategy although complicated could be the best approach to common environmental standards.

5.3. Effectiveness of European Union Policy Implementation

The European Union has been a constant producer of environmental policy, creating more content than it could manage. However, the impressive amount of policies made by the European Union have not fully achieved the effect one could expect, since they have a weak point: implementation.

Implementation is one of the most important and complex parts of creating an effective policy. Regarding an effective implementation in the European Union there are mainly two theories: one defending a centralized position, and another in favor of a more decentralized one. The first one considers that problems of enforcement increase due to the many actors that intervene in transposing Community law into national law, sometimes even overlapping powers. This would create ambiguity in the implementation of law and divergences between different member states. From this point of view a top-down approach, giving more powers to the Commission would ensure a better performance of European policy. On the other hand, some argue against this centralized approach, defending a more decentralized one. They believe that precisely because of the complex nature of the Union states should be able to implement policy by themselves in their territory, adapting this process to the needs and differences of each country. It must be noted that current European policy does not follow strictly neither of these positions, but rather a mix of both, in which European environmental law has to be transposed to national policy but this is developed by each state, in a decentralised manner. This influence the European Union has on national policies can be defined as Europeanization. The transposition of European policy needs to overcome the gaps that might exist between Community and national policy. In the cases with high structural coincidence Community law will simply be absorbed or adapted by the national policy, however, in some cases national policy structure will need to be transformed in order to implement European policy.

Lacking enforcement power, the Commission has to look for other means to ensure effective implementation, relying on cooperation of countries with the Union. In recent years the Union has increased its indirect influence on countries in order to boost cooperation. These “voluntary actions” strategy concur with a more decentralized tendency of the Commission, persuading, rather than forcing, the states to comply with European Union environmental policy. There has also been an increasing awareness of environmental protection importance during the last decades, which eased its implementation. Awareness was also raised about the fact that environmental law has to be based on preventive and precautionary principles.

The main problem for policy making in the European Union is the lack of an European enforcement system, which could guarantee the correct implementation of the law. Since it misses a traditional implementation strategy with direct powers, the European Union must adopt other persuasive measures, being its most important role to boost cooperation among countries within the EU and to create awareness of the importance of properly implementing policies. This issue is of special importance in such a complex area as environmental policy. The issue was first addressed by the Commission in 1996 in the Communication on Implementation of Environmental Law.

Putting in practice environmental policy has, and is still being, a great challenge for the European Union, lacking consensus on implementation among its members. Environmental policy is adopted at the Council of Ministers, representing states interests, and at the European Parliament. After adoption, it is the task and responsibility of each state member to implement the new policy in their territory ensuring its enforcement. Certainly this opens a big breach between member states when implementing new policies, adopting different measures or establishing different standards and priorities. An example of this is the importance given to regional governments by different states, being Spain and Italy one of the countries that give them more power. This without doubt affects the way policy will be transposed at the national level, and differs from other countries with a more centralized government. Problems of implementation also arise when policy interferes with another area affecting other policies of the country where the European Union has none or little competences.

This complex process of transposing policy at the national and subnational level is, according to article 211 of the Treaty, supervised by the European Commission. The Commission is the executive of the European Union and is responsible for legislating, passing laws and monitoring its performance. However, it lacks direct power, which hinders its task as supervisor, relying on states' good faith when submitting reports. Supervising implementation requires the cooperation of the Commission, member States, and environmental agencies. The European Court also plays a key role helping the Commission when irregularities or non-compliance is detected in a member state. The problem within this position is that the Commission can ensure directives are

transposed into national law, but not that they are properly enforced at the national level⁴⁵.

Figure 2: Directives regulating European Union environmental law.

General Framework	DIRECTIVES	OBJECTIVES
Tackling climate change	Directive 2009/28/EC: 2020 climate and energy package	"To promote the use of energy from renewablesources."
Air	Directive 2001/81/EC on national emission ceilingsfor certain atmospheric pollutants	"It sets limits on total national emissions from 4pollutants — sulphur dioxide, nitrogen oxides, volatile organic compounds and ammonia."
Chemicals	Directive 2012/18/EU on the control of major-accident hazards involving dangeroussubstances	"To control major accident hazards involvingdangerous substances, especially chemicals."
Nature & biodiversity	Directive 2009/147/EC onthe conservation of wild birds	"It seeks to conserve all wild birds in the EU bysetting out rules for their protection, conservation, management and control."
Noise	Directive 2002/49/EC on the assessment and management of environmental noise	"To provide a common basis for combating the harmful effects of exposure to environmental noise across the EU."
Soil & forest	Directive 2001/18/EC on the deliberate release into the environment of genetically modified organisms	"It aims to make the procedure for granting consent for the deliberate release more efficientand more transparent."
Waste	Directive 1999/31/EC on the landfill of waste	"It aims to prevent, or reduce as much as possible, any negative impact from landfill onsurface water, groundwater, soil, air or human health."
Coastal & maritime environment	Directive 2014/90/EU onmarine equipment	"To improve safety at sea, prevent marinepollution and ensure international safety standards for equipment on EU ships."
Industry & pollution	Directive 2010/75/EU on industrial emissions	"To prevent or, where that is not practicable, to reduce industrial emissions into air, water and land and to prevent the generation of waste."
Environmental controls & assessments	Directive 2004/35/EC on environmental liability with regard to the prevention andremedying of environmental damage	"To lay down rules based on the polluter-paysprinciple."
Environmental crimes	Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements	"To create rules that are applicable EU-wide on the imposition of penalties in the event of discharges of oil or other polluting substances from ships sailing in its waters."

Source: own elaboration from "Environment and climate change". EUR-lex (2020)

⁴⁵ Citizens information. Ireland (2020). "European Commission". Accessed on 5/02/2021. Available at: https://www.citizensinformation.ie/en/government_in_ireland/european_government/eu_institutions/european_commission.html#

Also, reports sent by states to the Commission are usually vague and dubious reliability. To solve this problem some argue the Commission should have more power to report records on implementation, although this would clash with states interest and could also interfere with the subsidiarity principle⁴⁶.

To address the differences among countries, the European Union has created a singular form of law, called directives, designed to create obligations on states but to give flexibility for its best implementation in each country or region. Directives have to be implemented within the Member States, but it is the decision of each state how it is transposed into its national law. Due to the binding nature of directives and their great level of adaptation, they compose most of the environmental legislation of the Union. It is also interesting to point out that directives addressing more general matters are easier to implement than very specific ones. For example, the directives composing the Community water law have been rarely implemented correctly and on time. To transpose European Directives into national law a time limit is set for all member states once a new policy is approved by the European Parliament, if states do not fulfill their task within the timeline they could face serious charges at the European Court.

On the other hand, the European environmental legislation is also composed of regulations and decisions. Regulations are less used because despite being binding they do not need to be necessarily transposed into national law, they can simply be adopted by Member States. Regulations are usually directed to unify an area within the Community, creating funds,

institutions or actions to protect a specific animals⁴⁷. It must be noted that both directives and regulations enter into force after the 20th day of its publication.

For a better understanding of the wide range covered by directives we will summarize some of them in the following table, which will also give us the opportunity to observe how they are created to act within a wide general framework but addressing very specific issues. This can also help us to understand the degree of environmental integration into different policy areas of the European Union.

In this table we can see the main areas of action of European environmental policy, in which we have included one Directive to represent the issues the Union aims to address in its environmental policy. The Community *acquis* on environmental policy is conformed by many more directives; however, this brief summary of the environmental directives allows us to better understand the functioning of the Union regarding environmental regulation. In these directives is reflected the aim of the

⁴⁶ Article 5 of the Treaty on European Union: "Under the principle of subsidiarity, in areas which do not fall within its exclusive competence, the Union shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level".

⁴⁷ An example of this is Regulation (EC) No 1936/2001 - control measures applicable to fishing for certain stocks of highly migratory fish.

Union to cover any gap left of environmental damage, as well as to provide an integrated approach to address the transnational nature of environmental damages.

We can observe how these directives address a very specific issue within their area of action, in order to achieve a better control of the implementation of the directives and their effectiveness. At the same time, they are created in order to allow flexibility of their implementation, being transposable into all Member States national law. This might seem controversial, however, flexibility enables a better transposition of European law. With this strategy, the Union allows the issue to be tackled as is best in each country, addressing their different circumstances.

Directive 2012/18/EU, addressing the control of major-accident hazards involving dangerous substances is a good representative of the proceeding of the Union. The directive could have addressed this problem in general, referring only to the proper use of substances, however, following the way of proceeding of the Union, it decided to specifically focus on the accidents these substances might cause. This accuracy at the time of proposing directives requires a lot of investigation efforts from the Community, recognizing its weaknesses and the transnational effects of some actions, or accidents in this case. In this specific directive, the Union acknowledged the need to address this problem regarding accidents occurred in the past, especially remembering Seveso Accident in 1976, which gives name to this directive, also called Seveso-III as it amended previous Directives on this matter. In order to address this problem the Directive specifies the industrial sites affected by it, as well as their task to inform the public about the risk of the chemicals used and their need to ensure measures are enforced in case of an accident⁴⁸. The same deployment of concreteness can be seen in Directive 2001/81/EC on national emission ceilings for certain atmospheric pollutants, focusing only on four specific gases, being these ones “sulphur dioxide, nitrogen oxides, volatile organic compounds and ammonia”.

Within these Directives we can also observe how they are designed to be transposed by each Member State into its national law, deciding the best way to implement a determined directive in each case. This is clear in Directive 2010/75/EU on industrial emissions, which specifically establishes its objectives “taking into account, when necessary, the economic situation and specific local characteristics of the place in which the industrial activity is taking place”⁴⁹, and that “it is for Member States to determine the approach for assigning responsibilities to operators of installations provided that compliance with this Directive is ensured”⁵⁰. However, it establishes minimum requirements for its implementation as well as it determines the

⁴⁸ European Commission (4 July 2012). Directive 2012/18. “On the control of major-accident hazards involving dangerous substances”. Accessed on 19/02/2021. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=legisum%3A121215>

⁴⁹ European Commission (4 November 2010). Directive 2010/75. “On industrial emissions (integrated pollution prevention and control)”. Accessed 19/02/2021. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32010L0075>

⁵⁰ *Ibidem* Opus Cit. 29.

highest levels of missions industries should reach, in order to create common European standards in this area.

5.1. Green Deal in the European Union

The latest action by the Union to shape its environmental policy has been the communication by the Commission of the European Green Deal 2020, incorporating new policy initiatives regarding environmental concerns for the next ten years. It establishes objectives with a long-term nature, aimed at redirecting the future of the Union towards sustainable community for 2050. This communication is the corroboration of the European Commitment with the Paris agreement. It is also part of the Commission's strategy to address the objectives of the United Nations sustainable development goals for 2030. The Green Deal communication implies that the Union will have to adapt its environmental policy to the objectives of this strategy.

The European Green Deal puts the environmental policy at the core of the European Union policies, since its purpose is to transform Europe into a completely sustainable economy, being aware that environmental protection and the fight of climate change is “this generation’s defining task”. In order to achieve this ambition, the fundamental objectives of this plan are: to achieve the climate neutrality of Europe by 2050, reducing its greenhouse gas emissions by 55%, compared to levels of 1990, in 2030 (40% of the actual objectives)⁵¹; decoupled economic growth from resource use and ensure that no one is left behind (European Commission, 2020)⁵². European economy will suffer some transformations, in order to achieve a sustainable economy. This can be seen by many as something negative, being an obstacle for its development, however, it has proven the possibility of the economy to improve its growth within an environmentally friendly framework.

The Green Deal strategy will support the determination of the Union to become an international leader in environmental protection, since according to this plan it would become the first continent achieving climate neutrality. To accomplish these objectives the European Union will have to strengthen the principle of integration and pursue the goals established within all sectors. Sustainable development is deeply rooted in this strategy, emphasizing the aim of the Union to accomplish an ecological transition towards a fair and prosperous society with a responsible use of resources: “transforming the EU’s economy for a sustainable future” (European Commission, 2019). The ambitious strategy established by the Green Deal has opened the debate for the creation of an European Climate Law, in order to pursue the climate neutrality of Europe by 2050, through legal means, transforming its suggestion into obligations.

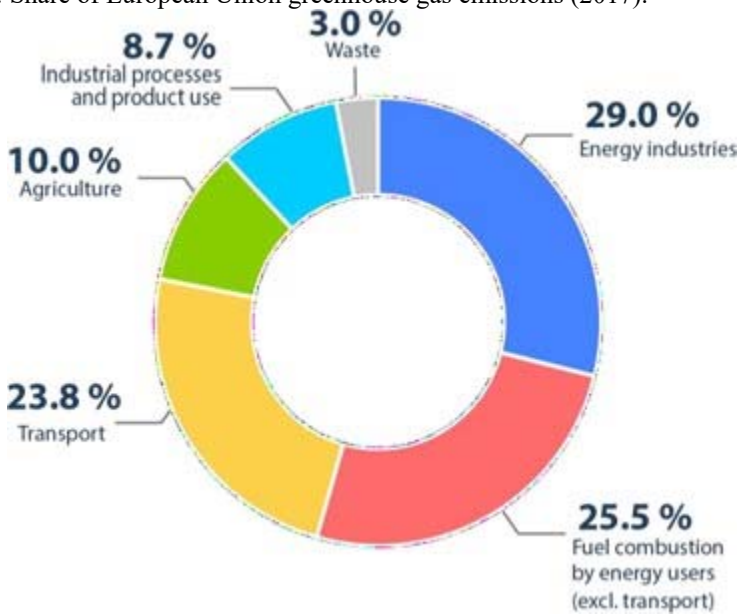
⁵¹ European Commission (2019). Green Deal Communication. Brussels, p.6.

⁵² European Commission (2019). “Un Pacto Verde Europeo”. Accessed on 19/02/2021. Available at: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_es

Reduction of greenhouse gas emission is crucial within this strategy, setting main areas of action: improving industry innovation, the energy efficiency of building⁵³, cleaner transport, decarbonization of the energy sector and reduced the impact on the environment of agricultural practices. These objectives try to address the areas of main greenhouse gas emissions from the European Union.

⁵³ El 40 % de nuestro consumo energético corresponde a los edificios; Análisis panorámico: Acción de la UE en materia de energía y cambio climático. Tribunal de cuentas europeo (2017). Acción de la UE en materia de energía y cambio climático.

Figure 3: Share of European Union greenhouse gas emissions (2017).



Source: Eurostat (2020). “How are emissions of greenhouse gases by the EU evolving?”

As we can observe in this graphic, the production and use of energy is responsible for most greenhouse emissions. The need to address energy sector emissions requires a transformation of the economic functioning as a whole, which will need a concrete plan of action and cooperation between all sectors. Specific plans of action have been established within the Green Deal to introduce new measures to pursue the goals established. The following areas will have a key role for the reduction of greenhouse gas emissions by the European Union.

Circular economy approach is one of the keystones of the Green Deal, leading the development of the different policies. The European Union will seek for a sustainable consumption together with a high responsibility of industries to comply with the requirements of the Union. Products produced within Europe should have a long duration and should be easy to reuse and to recycle, keeping resources used within the Union as long as possible. Proposals to develop this ambitious economy are diverse, and go from progressively removing single use products from the European market to offering the product as a service, keeping the industry responsible over the product during its life.

As mentioned before, energy use and production are crucial to achieve the goals set for 2050. According to the Green Deal Communication this sector accounts for the

75% emissions⁵⁴ of greenhouse gases of the European Union. Therefore, decarbonization of this sector is essential for the ecological transition. The current energy sector should be gradually replaced by renewable energies and will need the support of new technologies and cooperation among member states.

Great focus is put on agriculture, representing one third of the greenhouse emissions worldwide⁵⁵. The “From farm to fork” strategy presented by the Commission aims to develop a sustainable food production within the European Union, among other things reducing by 50% the loss of nutrients and fighting for soil fertility preservation⁵⁶.

The new relevance climate change acquires within this new plan is reflected in the funds of the Union earmarked for the fight against climate change. During the period of 2021-2027 it has been established that 25% of the European funds will be destined to this purpose to implement measures aimed at alleviating climate change⁵⁷. On the other hand, InvestEU will invest the 25% of its funds to develop programs focused on fighting climate change⁵⁸. This deployment of funds will also be supported by other inversions, coming both from the public sphere as well as from the public one, reuniting the sufficient economic support to implement the ambitious plan of the Union. Besides its economical funds, the European Commission will assist investors and Member states to properly invest the funds and pursue together the sustainable growth of the Union towards climate neutrality.

The Union is aware of the challenges the Green Deal will imply for the Member States. Industries of energy production or extractive industries will have many difficulties dealing with the changes incorporated by the Green Deal, needing to restructure or diversify their economy activity (European Commission, 2020)⁵⁹. Towards more sustainable practices. In order to address this problem and following its principle of “no one is left behind”, the Union has incorporated a Just Transition Platform to ensure that no region or sector is injured from these changes. The Just Transition Mechanism will give support to the sectors to pursue a green transition. This mechanism aims to accelerate the transition, addressing the differences between countries and the difficulties they might face when implementing the new initiatives.

⁵⁴ European Commission (2019). *Ibidem* Opus Cit. 29

⁵⁵ Ritchie, H. (2019). “Food production is responsible for one-quarter of the world’s greenhouse gas emissions”. *Our World in Data* (online). Accessed on 17/01/2021. Available at: <https://ourworldindata.org/food-ghg-emissions>

⁵⁶ This strategy within the Green Deal will be further developed later in this work, in section 6.1: Agricultural policy: case of study (integration principle).

⁵⁷ European Commission (2020). *The European Green Deal Investment Plan and Just Transition Mechanism Explained*. Accessed on 10/01/2021. Available at https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_24

⁵⁸ *Ibidem* Opus Cit. 30.

⁵⁹ European Commission (2020). “Just Transition Platform”. Accessed on 22/02/2021. Available at: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/actions-being-taken-eu/just-transition-mechanism/just-transition-platform_en

Its objective is not only to support a common strategy but to ensure that a common and equal framework of action is possible among the Member States.

Bearing in mind the transnational effects of environmental degradation, together with the risks it implies for human health and life quality, efforts would be insufficient if action is not carried out by all countries towards international cooperation. Therefore the Green Deal addresses one more time the international role Europe adopts, and it aims not only to achieve its green transition within the Union, but also to promote global action towards climate change, leading by example with its actions⁶⁰. It will help other countries to follow its path of ecological transition, setting initiatives for the implementation of the international scope of the European Green Deal. Collaboration of the Union with developing countries will be essential for leading the world towards a greener future.

6. Environmental policies in the european union: Cases studies.

In previous sections we have seen how environmental policy works within particularities of the functioning of the European Union. Through a series of study cases we will deepen into the implementation of European environmental law, addressing the particularities of a supranational regulation within the Union, and taking into account the challenges this presents to adaptate to each Member State needs.

6.1. Agricultural policy: case of study (integration principle)

The Community agricultural policy (CAP) was introduced in 1962 as a Community policy, addressing the needs of the Union to ensure food security⁶¹, but in 1984 it suffered its first crisis due to overproduction and the Union had to implement measures in order to control production supplies. During these initial years measures were centered on the main objective of creating a common market and environmental policy was not important within this sector. Of course there were measures to mitigate environmental problems produced by agriculture, but they were only directed at mitigating the effect of damaging actions, instead of preventing it or taking more severe measures, and in most cases they were only based on voluntary initiatives. However, during the 90s raise of awareness towards environmental protection came together with a whole change in consumers and society. The general raise of awareness, regarding food and environmental safety, required more strict measures and a change in European regulation in this area. The result of this trend was a more conscious European policy towards environmental integration in all areas, addressing

⁶⁰ The European Union is responsible for 12% of the world 's greenhouse gas emissions. Tribunal de cuentas europeo (2017).

⁶¹ European Commission (2019). “La política agrícola común en pocas palabras”. Accessed on 8/02/2021. Available at: https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-glance_es#Timeline

the cross-border environmental impact of anthropocentric activities as well as its multi-sectoral character of its damages. In 1992 a shift was made from the initial agricultural policy, changing from a market approach to one addressing the needs of the producer. This change implied price cuts and compensatory payments to the producers, also placing environmental protection at the center of the policy⁶². Within the framework of the Agenda 2000 in 2003 the Community Agricultural Policy went through another reform, which main objective was to strengthen the international market competitiveness of the Union in this sector. This reform separated the payments from the level of production which placed environmental concerns at the center of the policy instead of production, which led to intensive agricultural methods damaging for the environment. In 2013 the Community Agricultural Policy established Union action for the period 2014-2016. This implied the final consolidation Community Agricultural Policy, establishing the two pillars of this policy: “income support” and “market measures”, conforming the I Pillar; and “rural development measures” integrating the II Pillar. Current European agricultural policy links these two pillars to environmental protection, being funds contingent to environmental cross-compliance for direct payments⁶³. It must be noted that current Agricultural Policy is not only destined to traditional agricultural practices, but also to other dimensions of the rural areas such as fight of climate change, the revitalization of the rural economy or the production of biomaterials (European Parliament, 2020)⁶⁴.

6.1.1. Problems facing agricultural policy implementation

The agricultural sector occupies an important space in the European Union, both in physical space and in policy. The total land used in 2018 for agricultural purposes occupied about the 40% of the land of the European Union. Due to the effects agriculture has on the environment, and to the vast extension of this sector, many actions had been taken to integrate environmental concerns within the agricultural policy of the European Union. However, this is probably one of the more difficult sectors to develop integration and despite all the efforts of the European Union, the

⁶² Jongeneel, R.A. (2018). “The CAP support beyond 2020: assessing the future structure of direct payments and the rural development interventions in the light of the EU agricultural and environmental challenges”. Research4Committees(online). Accessed online on 20/02/2021. Available at: <https://research4committees.blog/2018/10/24/the-cap-strategic-plans-beyond-2020-assessing-the-future-structure-of-direct-payments-and-the-rural-development-interventions-in-the-light-of-the-eu-agricultural-and-environmental-challenges/>

⁶³ European Commission (2020). “An environmentally sustainable CAP”. European Commission. Accessed on 20/02/2021. Available at: https://ec.europa.eu/info/food-farming-fisheries/sustainability/environmental-sustainability/cap-and-environment_en

⁶⁴ European Parliament. (2020). “La política agrícola común (PAC) y el Tratado”. European Parliament. Accessed on 9/02/2021. Available at: <https://www.europarl.europa.eu/factsheets/es/sheet/103/la-politica-agricola-comun-pac-y-el-tratado>

European Agricultural policy is far from reaching the integration objectives of the Union. There are some aspects within the European Agricultural policy that make harder the task of integrating environmental concerns⁶⁵, which are discussed in this section. We also have to take into account the special considerations signaled by the Commission regarding implementation of agricultural policy: “farmers’ income is around 40% lower compared to non-agricultural income; agriculture depends more on the weather and the climate than many other sectors; and there is an inevitable time gap between consumer demand and farmers being able to supply” (European Commission, 2019)⁶⁶.

First of all, we have to take into consideration that the agricultural policy is one of the oldest policies of the Union and one of the main interventionist domains of the European Union. Due to its long history as a communitary policy more structural changes have to be addressed in order to meet the new goals, which will imply a slow process of re-adaptation. One of the main problems rooted in European agricultural policy comes from its first years at the beginning of the 70s, when environmental issues and farming were seen as separate concerns. The environmental damage produced by agricultural activities was disregarded, as it was assumed that what was good for farming was also good for the environment. The first introduction of environmental measures in this sector came within EU Regulation 757/85.

A determinant factor for environmental integration in this sector is the commercial nature of agricultural policy. Since agriculture is a market policy, its interests are quite complicated to reconcile with environmental protection measures. Agricultural policy is therefore directed at improving the productivity of the sector (ergo land productivity) and to improve its competitiveness for external exportation.

The fact that makes agriculture one of the most difficult areas to integrate environmental concerns is the complex and delicate relationship this sector implies between the environment, agriculture and the rural spaces. As it happens in any other area of the European Community, to the specific characteristics of each sector it has to be added to the peculiarities of each country or region. Therefore, within this complex relationship differences between countries and their needs must be addressed. As discussed before, the directives allow for the states to transpose European policy according to each needs, however, this flexibility of legislation difficulties the task of creating a common framework for environmental integration in agriculture.

Another problem to effectively implement environmental integration is found at the heart of this sector, coming from farmers. This sector has seen itself affected by European intervention since the 70s, going through different changes according to the needs of the Union. First it was the policies towards agriculture intensification and

⁶⁵ Buller, H. (2002). “Integrating EU Environmental and Agricultural Policy”. *Environmental Policy Integration*. United Kingdom: Earthscan Publications, p.103-122.

⁶⁶ European Commission (2019). “The common agricultural policy at a glance”. European Commission. Accessed on 14/02/2021. Available at: https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-glance_en

modernization, and now, decades later, they see their work affected by the same institution but asking for the reverse process: de-intensification of productivity. These new measures in agriculture, which in many cases clash with the traditional way of farming carried out by generations, is seen as interference with their profession. The lack of coherence over time in this field is not well received by farmers, who after having had to adapt themselves to agricultural modernization now have to undo the changes and compromise to the new needs imposed by the European Union. Focusing on environmental protection measures, they are a double edge blade since they imply changes on the last impositions of the Union, and they also call for a de-intensification of productivity. Many farmers are committed to the environmental cause; however, others can see their economic situation jeopardized having to adapt themselves and their way of working to the environmental requirements specified by the European Union, which remains a huge challenge despite European aid.

As we observed analysing the Green Deal, a greater focus has been put on integrating environmental concerns into agricultural policy, which has been reflected in the “Farm to fork” strategy included in this communication. The European commission has recognized three main environmental goals in this sector: “tackling climate change, protecting natural resources, enhancing biodiversity” (European Commission, 2019)⁶⁷. In order to secure the competitiveness of the European Agricultural sector, the commission has established other three general objectives within the agricultural strategy for 2021-2027. These are: ensuring the economic stability of farmers, pursue higher environmental protection standards and guarantee the position of this sector within the Union. In order to achieve these general goals, other nine specific objectives had to be established: “ensure a fair income for farmers, increase competitiveness, rebalance the power in the food chain, climate change action, environmental care, preserve landscapes and biodiversity, support generational renewal, foster vibrant rural areas and protect food and health quality” (European Commission, 2019)⁶⁸. The Union has specifies some targets regarding environmental protection within agriculture in order to achieve this objectives: organic farmland should account for 25% of agricultural land, reduce the use of pesticides and sale of antimicrobials, a 50%, reduce the soil nutrient loss a 50%, reduce the use of fertilizers a 40% (European Commission, 2020)⁶⁹.

6.1.1. Subnational differences on agricultural policy

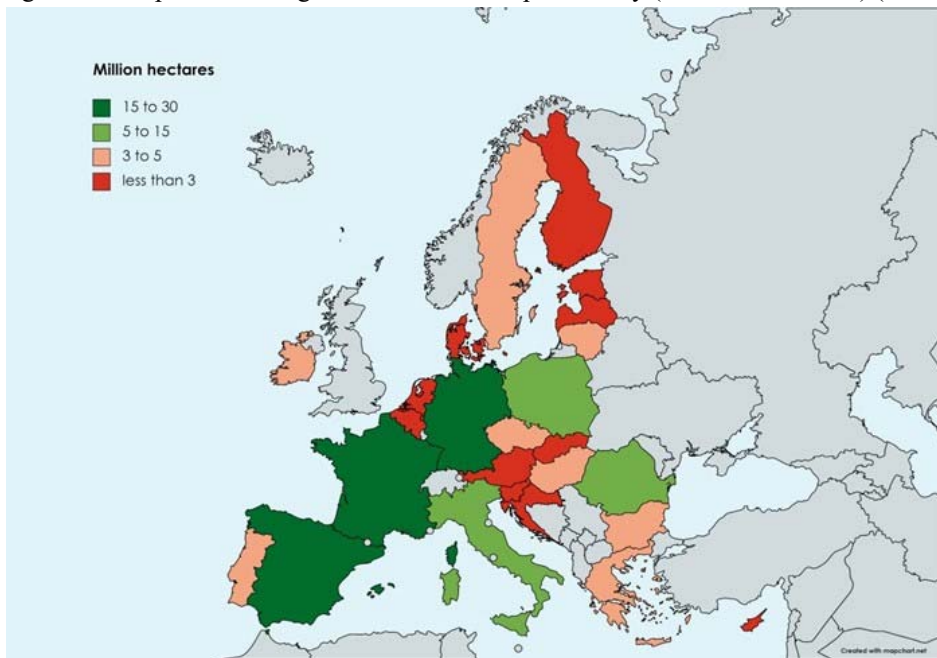
⁶⁷ Ibidem Opus Cit. 34.

⁶⁸ European Commission (2019). “Future of the common agricultural policy”. European Commission. Accessed on 14/02/2021. Available at: https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap_en

⁶⁹ European Commission (2020). “What should the EU do to promote sustainable agriculture?”. Debating Europe (online). Accessed on 16/02/2021. Available at: <https://www.debatingeurope.eu/2020/11/10/what-should-the-eu-do-to-promote-sustainable-agriculture/#.YDOVJOhKj1W>

European agricultural policy has to take into account the differences between countries, in order to address their diverse needs and challenges facing agricultural policy, which means that common agricultural policy will have to allow flexibility to tackle different problems in each country. The diversity of the Union allows diversification of agricultural practices, which is distributed as follows: “arable land accounts for the largest share –56%, followed by livestock grazing (25%), mixed crops (13.5%) and various permanent crops (5.5%)”⁷⁰. The agricultural land used per country determines how the common agricultural policy is developed, since there are great gaps between countries' agricultural land extension.

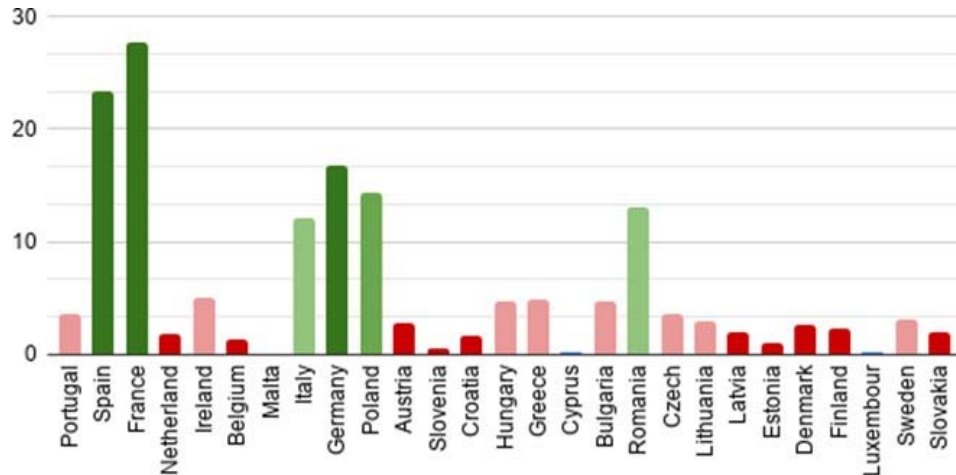
Figure 4: European Union agricultural land used per country (in million hectares) (2013).



Source: own creation from Heinrich Böll Foundation (2019).

⁷⁰ European Commission (2018). EU science Hub. “Trends in the EU Agricultural Land Within 2015-2030”. Accessed on 21/02/2021. Available at: <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/trends-eu-agricultural-land-within-2015-2030>

Figure 5: European Union agricultural land used per country (in million hectares) (2013).



Source: own creation from Heinrich Böll Foundation (2019).

As we can observe the land destined to agriculture varies a lot depending on the country. Larger countries such as France, Spain or Germany have the greatest extension of land for agricultural use in the Union: 27.7, 23.3 and 16.7 million hectares respectively. It is worth mentioning that before Brexit the United Kingdom was one of the countries with most land for agricultural use, with 17.1 million hectares destined for this purpose. Poland, Romania and Italy account another great extension of European agricultural land, leaving the missing 30% of agricultural land distributed among the other Member States⁷¹. It is worth noting that proportionally to their territory Hungary, Denmark and Ireland have one of the greatest agricultural land extensions, accounting for 60% of their territory⁷².

Despite the importance of a country's size this is not the only factor to have into consideration. The climate and geography of a country have a great impact determining the agricultural land used per country. A clear example of this is the little agricultural land in Finland and Sweden, which with a vast territory only 2.3 and 3.0 million hectares respectively are destined for agriculture. This is due to the hard arctic climate conditions of these countries, which together with its geography, a great extension of forest and lakes, pose huge difficulties for farming in these countries. These conditions have led to a modest farming model, relying on small and family

⁷¹ European Environmental Agency Report (2019). Climate change adaptation in the agriculture sector in Europe. European Environmental Agency. Publications Office of the European Union, P.13. Accessed on 15/02/2021. Available at: <https://www.euroseeds.eu/app/uploads/2019/09/Climate-change-adaptation-in-the-agriculture-sector-in-Europe.pdf>

⁷² EU Science Hub. Ibidem Opus Cit.35.

farming⁷³. The vast extension of large countries together with specific climate and geographical conditions allow a higher diversification of agriculture, exploiting the opportunities of each region. In the case of France, the European country with the greatest extension of agricultural land, we can observe different agricultural tendencies depending on climate and on geography. Vineyard plantations are located in the South of the country, where warmer climate and arid solid are optimum for their growth, while the crops cultivation, which account for the majority of the agricultural land, are mainly concentrated in the Northern area.

On the other hand, permanent grassland for livestock is concentrated on the Alpine region of France⁷⁴. This overview of agricultural land use in France reveals the agricultural potential of large countries, as it usually implies not only a greater extension of land, but diversification opportunities due to different climate, geographic and soil conditions.

Different countries need to address diverse problems depending, which means that European environmental policy will have to allow flexibility to tackle different problems in each country. Mediterranean regions rely on irrigation for agriculture due to higher temperatures and dry climate. Spain, 22% of agricultural land is irrigated, traditional irrigation systems have been superseded by modern irrigation systems due to their lower productivity⁷⁵.

6.1.1. European Union budget on agricultural policy

The European Commission has taken into consideration these problems regarding agricultural policy implementation, concerns which were reflected in the budget destined to this sector in 2019⁷⁶, €57.9 billion of the €159 billion total budget, representing around the 40% of the total⁷⁷. The funds destined to the agricultural policy are financed through two European funds⁷⁸: European agricultural guarantee fund (EAGF), addressing market measures, and European agricultural fund for rural

⁷³ Food and Agriculture Organization of the United Nations (2018). "Family Farming Knowledge Platform: Finland". Accessed on 21/02/2021. Available at: <http://www.fao.org/family-farming/countries/fin/en/>

⁷⁴ Ministère de l'agriculture et de l'alimentation (2015). "Overview of French Agricultural Diversity". Accessed on 18/02/2021. Available at: [https://agriculture.gouv.fr/overview-french-agricultural-diversity#:~:text=France%20has%20the%20biggest%20utilized,third%20in%20pig%20meat%20product ion.](https://agriculture.gouv.fr/overview-french-agricultural-diversity#:~:text=France%20has%20the%20biggest%20utilized,third%20in%20pig%20meat%20production.)

⁷⁵ Heinrich Böll Foundation (2019). "Spain/water: minly the plain". Agriculture Atlas: Facts and figures on EU farming policy, p.32. Accessed on 8/02/2021. Available at: https://www.arc2020.eu/wp-content/uploads/2019/05/agricultureatlas2019_web_190508-compressed.pdf

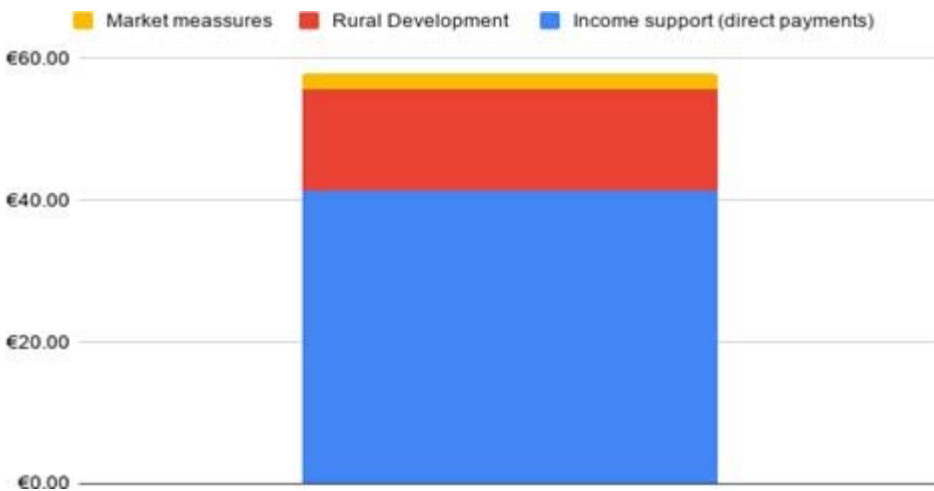
⁷⁶ European Commission (2020). EU expenditure and revenue 2014-2020. Available at: https://ec.europa.eu/budget/graphs/revenue_expenditure.html

⁷⁷ Ibidem Opus Cit. 38.

⁷⁸ European Commission (2019). "Rural development: protecting the future of rural communities". Accessed on 9/02/2021. Available at: https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/rural-development_en

development (EAFRD), investing on projects to ensure the environmental protection within agricultural practices. During the period 2014-2020 the European agricultural fund for rural development (EAFR) contributed with an amount around €100 billion⁷⁹. However, the European funds for agricultural policy are not equally distributed among the Member States, depending on the agricultural land of each country and their needs.

Figure 6: The European Union support to farmers in 2019

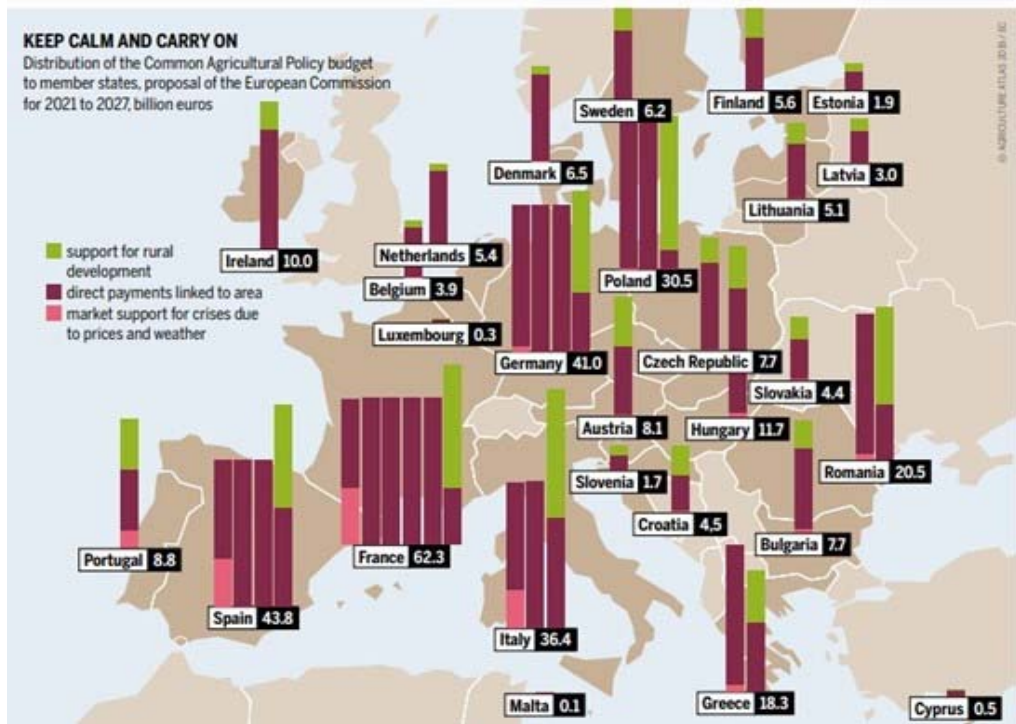


Source: own creation from: “The common agricultural policy at glance”. European Commission (2020)

In this graphic (Figure 6) we can observe how the European budget destined to agriculture is divided into its two pillars. Income support for farmers, direct payments, account for the majority of the budget, trying to mitigate the difference of farmer income compared to other sectors as well as mitigating the uncertainty effects due to weather conditions. The extensive amount expended on income support reflects the aim of the Union to encourage economic growth of the sector through the implementation of sustainable practices. However this budget is not distributed equally among Member States, since agricultural land used, agricultural practices, risks and other determinant factors have to be considered.

⁷⁹ European Commission (2019). “Rural development: protecting the future of rural communities”. Accessed on 9/02/2021. Available at: https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/rural-development_en

Figure 7: Predicted distribution of the common agricultural budget among member states (2021-2027)



Source: Heinrich Böll Foundation (2019)

In this map (Figure 7) is reflected the relationship between agricultural land used per country (Map 6.1) and the distribution of funds proposed for the next period 2021-2027, being Spain, France, Germany, Poland, Italy and Romania the main beneficiaries from these funds. However, we should be aware of the distribution of funds relying not only on land extension but on the necessities of the country to implement the common agricultural policy. We can also observe how the distribution of funds between countries follows a similar pattern, according to the general allocation of funds represented in graphic 6.2.

6.1.1. Environmental problems from agricultural policy

The common agricultural policy has increased agricultural productivity through a deep process of intensification. This has presented different problems both for the agricultural sector and for the environment. Intensification of production requires industrial farms, which usually endangers job positions and jeopardizes the environment through aggressive practices that increase emissions and damage the soil. In some cases countries shift from traditional crops to others to increase productivity,

which puts at risk biodiversity⁸⁰. Agricultural policy is also driven by the challenges climate change presents to this sector. To address the problem of biodiversity the European Union implemented Natura2000, a European network for biodiversity protection and conservation. Therefore, a shift towards a more sustainable agriculture will not only guarantee the protection of the environment, but also decent conditions for farmers and a healthier supply of food.

6.2. Covid-19 crisis and its effects in environmental European Union Policy

The Covid-19 Crisis has changed the dynamic of the world and has had a range of economic, social and environmental impacts. Regarding climate change, the low activity due to the pandemic contributes to the large amount of evidence supporting the correlation between human activity and environmental degradation and climate change. Temporary improvements in indicators of environmental pollution such as greenhouse gas emissions or air quality have been observed⁸¹. The Covid Crisis has to a large extent increased the importance of environmental protection and the need to place environmental policies at the core of the international agenda.

However, the Covid-19 pandemic has resulted into a global economic and social crisis, which affects the functioning of the countries and stresses their differences. Within the European Union, the crisis has increased the gap between Northern and Southern countries. The Southern countries of Europe such as Portugal, Spain, Italy or Greece, have always been economically behind Northern European countries, a difference that escalated during the 2008 crisis. The economic gap between these countries has deepened even more during the Covid-19 crisis, in which Southern countries have incurred a larger deficit and increased their public debt. Focusing on the consequences of Covid on certain industries, the South has suffered the greatest impact given that one of its main sectors is tourism - and industry which has been completely paralyzed by governmental restrictions.

When talking about the focus put on some sectors, we therefore have to take into account the constantly evolving needs of society which will then be reflected in policy. Taking tourism as an example, we will see how funds are invested in order to reactivate the economy whilst simultaneously taking into account the new needs of society and of the environment. It is here where we can observe how environmental concerns and new measures to deal with the crisis can be met, as well as the opportunities the pandemic can bring to renovate policies towards sustainability. In the case of tourism it is clear that it cannot be propelled in a traditional way and must

⁸⁰ European Commission (2020). "Natura 2000". European Commission. Accessed on 20/02/2021. Available at: https://ec.europa.eu/environment/nature/natura2000/index_en.htm

⁸¹ European Environmental Agency (2021). "Covid-19 measures have mixed impacts on the environment". European Environmental Agency. Accessed on 29/01/2021. Available at: <https://www.eea.europa.eu/highlights/impact-of-covid-19-lockdown>

be ready to reinvent itself. Sustainable tourism will thus be a key strategy to reactivate this sector. Any new approach will inevitably be safer for tourists, from a sanitary point of view, since it will be a much more individualized tourism. The indirect consequences of this new approach will be felt by the environment, which will be much more protected from the effects of mass tourism. This is a concrete example of how a sector can not only recover, but of how its recovery can be an excellent strategy to reignite economic growth in general whilst at the same time pursuing environmental protection.

New measures to recover from the pandemic will also have to take into account the increasing concerns of society regarding environmental protection. Since the Covid outbreak,

citizens have become more aware of the importance of protecting the environment, which will then be reflected in voters' priorities. We have heard many times of the risks environmental damages might lead to (for example, in the form of increasing floods or forest fires), but this was the first time we saw the effects of climate change on a truly worldwide scale. Scientists had warned us before about the dangers of deforestation derived largely (at 40%) from agriculture or farming, becoming one of the major problems regarding the environment⁸². Studies show that deforestation leads to new infectious diseases for humans⁸³ and the Covid outbreak is one obvious example of this.

Reconciliation between environmental policies and a pathway out of the crisis is possible. In fact, environmental policy is at the core of the European Policy and is on its recovery plan for the coming years. Raising standards for environmental protection does not mean they are going to act as an obstacle for economic development -they will actually be essential for the recovery and propulsion of key sectors. The European Union has established a recovery plan with a total budget of €1,8 billions⁸⁴. This recovery plan is included in the European long-term budget as well as in funds of the Next Generation EU, a temporary European instrument created to provide support to the European community and recover from the crisis. The European Union's plan is focused not simply on recovery, but on a recovery based on sustainability. These funds facilitate the growth of specific sectors key for recovery as agriculture, so that they can develop in a sustainable way and in accordance with the EU's environmental policies and objectives, increasing its competitiveness. However,

⁸² Lucas, A. (2019). "Cada año se pierde una masa de bosques del tamaño de Reino Unido". El País (online). Accessed on 6/02/2021. Available at: https://elpais.com/elpais/2019/09/11/planeta_futuro/1568188985_885427.html#:~:text=Seg%C3%BAAn%20el%20informe%20del%20Estado,la%20miner%C3%ADa%2C%20el%207%25.

⁸³ Zimmer, K. (2019). "Deforestation is leading to more infectious diseases in humans". National Geographic.. Accessed on 6/02/2021. Available at: <https://www.nationalgeographic.com/science/2019/11/deforestation-leading-to-more-infectious-diseases-in-humans/>

⁸⁴ European Commission (2021). "Plan de recuperación para Europa". Accessed on 6/2/2021. Available at: https://ec.europa.eu/info/strategy/recovery-plan-europe_es

these funds cannot be used in a naive manner, they bear in mind the changes which have occurred within each sector in order to adapt the new measures and make the most out of each opportunity.

7. Conclusions

Through this work we have seen the evolution of European environmental policy over the years, analysing the obstacles it had to overcome and its progress. In the first section we analysed the emergence of environmental policy, which developed parallel to world globalization and to more demanding environmental measures from the society. The characteristics of environmental policy showed us its complexity and challenges of its implementation, as creating a flexible policy to address different problems in each area. Once having analysed the main characteristics of international environmental policy we proceeded to focus on the object of this work: European environmental policy and its effectiveness.

Analysis of the functioning of the Union showed us a decentralized system, in which integration of environmental policies into other areas is at the core of the agenda in order to achieve its objectives. The decentralized system of the European Union hinders its role of regulating environmental policy, which refrains the Union from adopting more strict and effective measures. European environmental legislation has in most cases a persuasive nature instead of a rigid one. However, a centralized approach generates a block of opposition from member states, and therefore this strategy still seems as the best way to pursue common goals at an European level. It is expected that the Commission will continue to proceed in this manner, but what can be asked from society is to ensure the commitment of national governments to pursue these objectives. In many cases, despite these directives being transposed into national law, European environmental objectives are not a main priority within the national policy and the objective targets are not achieved.

Through the analysis of the common agricultural policy we observed how the environmental policy is effectively integrated into other sectors. However, this section also reflected the disparities between member states and the challenges this poses to environmental regulation, addressing different climates conditions or different environmental problems.

Finally, we observed some of the challenges environmental policy will have to deal with, in order to propel recovery from the crisis through a strategy focused on sustainability. However, major effects of Covid-19 crisis and increasing climate change risks will be revealed in the following years. At this point we analysed the convergence between economy recovery and a sustainable approach from the Union. This is collected in both the European Recovery Plan and in its Green Deal strategy. Despite its problems to control effective implementation of policy, the European Union is making many progress regarding environmental policy, and ensuring its role as an international leader in environmental protection.

However, its latest advances on environmental protection and commitment towards a green transition give a glance of hope over our environmental future. It still has a long way to go to achieve its ambitious goals reflected in the new European Green Deal, but it is making great progress compared to environmental policy a few decades ago. Through internal and international cooperation the European Union has a great potential to accomplish its purpose and lead the transition of the European Union and the world into the green future we are all awaiting for.

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