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Environmental Consciousness for the Politically Autonomous: The Basque Country

Miranda L. White

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Environmental Consciousness for the Politically Autonomous: The Basque Country

Miranda L. White

School Of International Training

Spain: Policy, Law and Regional Autonomy in Europe

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Academic Director: Victor Tricot

Academic Advisor: Eduardo Javier Ruiz Vieyetz

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Abstract

When discussing the issue of political autonomy, the usual topics that are taken into consideration are based around human rights, language, culture, society or economics. Those are the most commonly discussed for good reason, as they are important for the rights and freedoms of a community itself. However, this research paper aims to investigate further into the discussion of the environmental effects of political autonomy in Spain, specifically in the matter of autonomous competencies for waterway and air management. Therefore, in order to test such a hypothesis, this study will use the Basque Country of Spain as the subject, and the policies enacted or suggested by the European Union as gauges as to whether or not the autonomous community is meeting, or possibly even exceeding, the standards set internationally in comparison to Spain as a whole. Historical context and the basis for this study is based primarily on literature review, while arguments for whether or not the Basque Country is effectively implementing environmental policies in relation to waterways and the air were collected via interviews from field professionals in the subjects of European Union policies, environmental research, protection and sustainability. After the collection and comparison of different literature and the statements of said professionals, the conclusion reached was that the Basque Country is, in fact, exceeding the expectations of Spain and meeting those of the European Union, and has plans to continue to do so in the future.

Keywords: Air Quality, Waterways, Basque Country (País Vasco)

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Introduction

In the coming years after the Franco Regime in Spain, the different culturally autonomous regions of Spain have slowly gained more of their original political autonomy back from the Central Spanish Government. With such, competencies pertaining to smaller municipal proceedings and matters regarding the environment in which they live in are all encapsulated in the promise within the Spanish Constitution to recognise the regions.¹ From this, there are possible effects from the ability for an area to interpret and create legislation that is different from its neighboring regions or from the nation overall. For example, the competencies given to the communities by Spain regarding to how each autonomous community deals with and manages waterways and environmental protection varies, some of which are exclusive, while others shared.

Additionally, much of these exclusive competencies that are given to each region relates back to a topic in which the competency covers an environmental resource that is later shared down the line solely via relation to the rest of Spain (i.e water that runs downstream). While these competencies may be in compliance with the standards of the European Union, there is an allowance for differences between how each area implements and creates environmental policy that can be more or less beneficial to the entirety of Spain. To truly conclude if this is the case, research over the policies within a region would need to be done in comparison to all of Spain. Therefore, based on environmental policy created by the European Union, this research aims to answer the following; how has additional political autonomy to Spanish regions affected environmental resources, such as the air and waterways, throughout the Basque Country in comparison to the rest of Spain?

In order to answer this question to the fullest capacity, this paper will have three main objectives. Firstly, review what the basic standards and key elements are for waterway and air quality management in the EU in order to set benchmarkers to gauge the effectiveness of Basque policy implementation in comparison to the effectiveness of Spanish policy implementation.

¹ Gobierno de España. (1978). *Constitución de España*. Cortes Generales, Agencia Estatal Boletín Oficial del Estado.

Building on this previous objective, this paper will seek to compare those standards set by the EU to determine if the Basque Country is meeting or exceeding those standards in creation of their own environmental protection legislation. The final objective is to make conclusions as to whether or not the Basque Country is helping or harming the environment of Spain based on the evidence found during research and comparison between the policies of the Basque Country and Spain in general. In order to accomplish such goals, this study will examine the policy implementations and future plans of air quality and waterway management on three levels, (international/European Union, national, and regional) and will take the testimonies of those who work closely with such to determine both the veracity and effectiveness of the plans and implementations for the environmental policies at each level. The hypothesis prior to beginning in-depth research and discussions is that, due to the additional political autonomy and competencies given to the Basque Country, the community is, in fact, exceeding the expectations set by national standards. In regards to international standards, the Basque Country is meeting the European Union standards and will continue to do so as time goes on. Therefore, it is benefitting the overall environment of Spain, especially in the matter of air quality and waterway management.

Before beginning discussion of this topic, there are a few terms that must first be defined in order to understand exactly what is being researched and measured. Firstly, the term “air quality” will be used to refer to a lack or abundance of pollutants in the natural ambient environment, most commonly with the connotation that it is undesirable to have an abundance of pollutants. The term “waterway” is used to refer to the moving bodies of water throughout Spain, such as rivers or canals that connect throughout the regions and/or end in basins. Finally, when discussing the Basque Country, otherwise known in Spanish as el País Vasco, this term will be used in reference to the political autonomous region within the Spanish State and is not in reference to the cultural Basque Country that includes part of the southern region of France.

Literature Review

History

To begin, it is imperative to understand the history of the distribution of legislative powers within Spain, on both a national and regional level. As previously stated, the current Spanish Constitution was only created after the fall of the Franco Regime, in the year 1978. As such, there are 2 articles that need to be emphasized for the purpose of better understanding this report- article 45 and article 148. Article 45.1 states that, “Everyone [in Spain] has the right to enjoy an environment suitable for personal development, as well as the duty to preserve it,” which details the importance for the citizens of Spain to contribute to the preservation and conservation of the environment in their country, thus showing the importance of environmental protection in Spanish culture as a whole. With this, article 148 lays out exactly what the competencies of the autonomous communities are, which include sections 9 and 10 that state the competencies to “environmental protection management” and the “planning, construction and operation of hydraulic projects, canals and irrigation of benefit to the Autonomous Community; mineral and thermal waters,” respectively.

From these foundational articles in the constitution, the legislative abilities were created and outlined, along with an affirmative and actualized responsibility of the Spanish people to take care of the areas they live in. In addition to this culture of environmental responsibility within the organisation itself, the European Union has had a long history with environmental policies and expectations of their member states, of which began with the Paris Summit of 1972, where the European Economic Community first met up and discussed plans for community action in fields such as environmental protection.² From that point forward, several other conferences and accords have created and established a culture of environmental protection within the European Union and its member states, of which Spain joined in 1986.³ Therefore, Spain has a political obligation to follow the legislation and mandates set by the European Union if they wish to receive the full spectrum of benefits that can only be obtained by an upstanding member of the Union. In short, whatever legislation the European Union makes in regard to the

² Anonymous. (2018, March 27). *The history of the European Union - 1972*.

³ Anonymous. (N.A.). “EU Member Countries in Brief - Spain”. The European Union.

environment, Spain is required to follow accordingly. From these historical understandings, an argument can be built that, on a national and international basis, that environmental protection is already an integral subject in the legislative culture of both levels, for which the Basque Country would be following suit.

Policies at European Union Level

Key Air Policies

One of the most essential policies to date that the European Union has created and implemented in regards to air quality management and betterment is *Directive 2008/50/EC of The European Parliament and of The Council*. This directive outlines the exact limits of air pollutants throughout the member states, describes exactly how air quality will be measured, and legally binds the states to such requirements. Furthermore, this directive also builds upon the first legislation written in regards to the air quality of Europe, *Air Quality Framework Directive 96/62/EC*.⁴ This directive is especially important as it gives explicit and direct guidelines for the member states of the European Union to comply by, such as in Article 6.5, which gives the criteria for collecting and assessing air quality samples such as, “one sampling point shall be installed every 100,000 km²”.⁵ By giving concrete and quantifiable criteria and limits for the member states, the European Union and those associated with it can effectively measure how well each member state is complying to and implementing the contents of not only *Directive 2008/50/EC*, but all related legislation and directives with such. This document will therefore aid in the endeavor of evaluating the implementation of air quality policy in both the Basque Country and Spain on a qualitative level.

⁴ European Union. (2008). *Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe*. Publications Office of the European Union. Objectives stated in Introduction.

⁵ European Union. (2008). *Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe*. Publications Office of the European Union. Article 6.5a

Key Waterway Policies

Directive 2000/60/EC, more commonly known as the “Water Framework Directive”, is the quintessential piece of legislation over the management of water throughout the European Union. This document was created as a guideline for water policy creation, with the protection and conservation of waterways not only as a commercial resource, but also as a human resource which is at the core of what this document intends to achieve.⁶ These attitudes can be seen in phrasing such as in Article 14.1 that states that “Member states shall encourage the active involvement of all interested parties in the implementation of this Directive”⁷. Such sentiments add value and weight to the pertinence of the document’s objectives, as adding an aspect that is more central to the betterment of the community means that the European Union’s water policies are going to be unable to be relaxed or modified for the sake of the commercial sector. With that in mind, this document contains a requirement for River Basin Management plans, which calls for the member states to create and send reports to the European Union in order to track their progress for water improvement and maintenance. These plans cause each member state to be held accountable for how they are implementing this directive and all the legislation within. For the purpose of this research, *Directive 2000/60/EC* can be used in order to evaluate the effectiveness of waterway policy implementation in Spain as a whole.

Policies at National Level

Key Air Policies

While Spain simply follows the legislation set by the European Union in regards to environmental policy, one of the few unique pieces of legislation created by Spain is *Law 34/2007 on Air Quality and Protection of the Atmosphere*. This law dictates the necessary actions that need to be taken in order to prevent, monitor, and reduce air pollution overall in order to attempt to reduce and revert the damage done previously by human activity.⁸ In addition,

⁶ European Union. (2000). *Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy*. Publications Office of the European Union. Introduction.

⁷ *Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000*. Article 14.1

⁸ Gobierno de España. (2008). *Ley de calidad del aire y protección de la atmósfera: Ley 34/2007, de 15 de noviembre*. Ministerio de Medio Ambiente, Boletín Oficial del Estado. Stated in objectives of document.

this law was created as an attempt to concentrate the efforts of fighting pollution in Spain based on the requirements given by the European Union.⁹ The gravity of this objective can be seen in the likes of Article 4.2, which states that, “Within their respective powers, the public authorities shall take all measures necessary to achieve and maintain a high level of protection of people and the environment. Meanwhile, individuals will endeavor to help prevent and reduce air pollution.”¹⁰ Therefore, seeing as there is an official precedent set within this legislation, this research piece will be using the contents of such to determine whether or not Spain is keeping their own promises, or at the very least following the initiatives made by European Union policies such as the directive described in the previous subsection.

Key Waterway Policies

When it comes to waterway policy in Spain, the main source of legislation surrounding this topic is *Royal Decree 1/2001*, which replaced the original document of the *Water Act of 1985*.¹¹ This decree outlines the regulation, management and usage of water within Spain as both a public and private resource. It is important to note that in regard to Article 50.1, “everyone can, without administrative authorisation and in accordance with laws and regulations, use of surface water, while they run through their channels natural, for drinking, bathing and other domestic uses, as well as for watering livestock”.¹² While this is a translation of the original text, this phrasing guarantees that everyone has free public domain of surface water as long as they follow the regulations surrounding said water. The regulation and management over those areas need to be more closely monitored, as the public has the ability to both improve or worsen the waterways, which may impact the outcome of Spain’s implementation of the regulations deemed necessary by the European Union.

⁹ Gobierno de España. (2008). *Ley de calidad del aire y protección de la atmósfera: Ley 34/2007, de 15 de noviembre*. Ministerio de Medio Ambiente, Boletín Oficial del Estado.

¹⁰ *Ley de calidad del aire y protección de la atmósfera: Ley 34/2007, de 15 de noviembre*. Art. 4.2

¹¹ Gobierno de España. (2017). *Real Decreto 39/2017, de 27 de enero, por el que se modifica el Real Decreto 102/2011, de 28 de enero, relativo a la mejora de la calidad del aire*. Ministerio de Medio Ambiente, Boletín Oficial del Estado. Translation into English. Stated in Introduction to objectives.

¹² Gobierno de España. (2017). *Real Decreto 39/2017*. Art. 50.1

Policies at Regional Level

Key Air Policies.

Within the Basque Country itself, the regional government generally follows the ruling of *Royal Decree 39/2017* which builds upon and modifies the previous *Royal Decree 102/2011*.¹³ While this document was not created within the Basque Country itself, it is crucial in understanding what priorities and expectations the Basque Country keeps for itself and the community that it inhabits. The document outlines the air quality objectives pertaining to specific chemicals and pollutants in the ambient environment, such as sulfur dioxide, nitrogen oxides and arsenic. This will be crucial towards the research done in this paper, as knowing the exact pollutants and their appropriate levels will aid in measuring the effectiveness of the Basque Country's efforts in meeting the goals not only set by the European Union but also the goals set within the autonomous community itself.

Key Waterway Policies.

To conclude with the key policies for this research, a piece of legislation within the Basque Country regarding waterway management is *Law 1/2006*, which basically outlines how the Basque Water Agency (URA) has the right to carry out legislation and water maintenance to the satisfaction of the standards set by the European Union.¹⁴ The objectives for this document, as described in Article 1.1 is, "To determine the fundamental environmental objectives and regulate the protection and use of waters and their environment and the regime of infractions and sanctions".¹⁵ Acknowledging the objective of this piece of legislation and giving the rights to a single organization works to the benefit of this project, as all reports and policies can be found under the jurisdiction of that one organization. This will aid in confirming that the Basque Country is in fact meeting all standards set by the European Union via reports created by the Basque Water Agency. This demonstrates that the Basque Country is also working towards the betterment of the quality and maintenance of its waterways.

¹³ Gobierno Vasco. (2006, June 19). *Ley 1/2006, de 23 de junio, de Aguas*. Presidencia del Gobierno.

¹⁴ Gobierno de España. (2008). *Ley de calidad del aire y protección de la atmósfera: Ley 34/2007, de 15 de noviembre*. Ministerio de Medio Ambiente, Boletín Oficial del Estado.

¹⁵ *Ley 1/2006, de 23 de junio, de Aguas*. Art. 1.1a

Methodology

Preparations

As this project is mainly a review and interpretation of different environmental policies, the natural first step in preparation is to research and synopsise the different legislative actions at all levels. This step was pertinent to the project so that it was possible to highlight the most important aspects of environmental policies in each level and how those different legislative actions would affect each other, both later in the time and level of concentration of authority. After the documents were collected and synopsized for arguments, the next step was to then search for participants who would be willing to answer some questions about such documents and legislation so that a professional conclusion from someone who worked closely with the topic could be reached. For this, there was a general idea that a minimum of one organizational representative and one field professional would be obtained, to give both an individualistic and representative response regarding the Basque Country's implementation of environmental policy on a day to day basis.

In total, two organizations and three individuals were contacted, of whom were decided upon based on their ability to match the criteria of at least two of three categories, which were proximity to or high knowledge of Basque or European Union environmental policy procedure, preferable language capabilities, and likeliness for response. After such, people were contacted via email and questions were formulated based on the information discussed within the different pieces of legislation. The final step for preparations of this research piece was to formulate appropriate questions surrounding this topic. These questions were formulated carefully in order to be sure that answers were unbiased and were not being phrased in a way to make any subject of the interview feel uncomfortable answering the question. The questions that were created for this interview were the following:

1. How would you describe the Basque Country's implementation of general mandates and policies created by Spain in regards to air quality management?
2. How would you describe its implementation of waterway management policies?

3. In the last 30 years, what improvements have you seen in the Basque Country based on the implementation of these policies?
4. In relation to environmental policy created by the European Union, do you believe the Basque Country is meeting or exceeding the expectations set for members of the European Union? How or how not?
5. Do you believe that Spain as a Member State of the European Union is meeting or exceeding those same standards? How or how not?
6. For the future of environmental policy creation and implementations within the Basque Country, do you have any suggestions for changes or improvements based on your observations of such?

Strategies

One of the biggest tools for finding what organizations and political papers were published over the topics of air quality and waterway management was simply using search engines such as Google to get a starting point of where to look for information regarding organizations. From the organizations, the different legalities and policies regarding the organizations tended to be linked through a database that was run by the Basque Government, the European Union, or through the Spanish Government. Another important strategy for this project was setting an approximate schedule of the tasks to be completed, rather than an exact day by day schedule. This was helpful because there was room for error in case something went awry. This was extremely valuable in the case of finding interviews, as they were particularly difficult to obtain. Finally, while conducting the interview, the questions took into account the comfort level and knowledge of the interviewee. As the goal was to get professional perspectives, it was pertinent to get explicit permission of the interviewee for the use of their name in the final product if they desired to be named, and to get permission to take audio recordings and notes over their responses via an interview consent form.

Obstacles

Prior Research

For this topic specifically, it was difficult to find exact policies over the air quality and waterways, especially in the Basque Country. I had found several documents containing promises and guarantees of action throughout the region and several action plans that were put into motion or were soon to be, but no physical legislation. It wasn't until after searching for several hours that I eventually found what was needed on the Basque Water Agency page containing formalities over sanctions for public agencies. Another difficulty was finding individual policies for Spain as a whole, as most of the time Spain just follows exactly what is expected of them from the European Union, which will be discussed in the results of this project.

Participants

One of the most difficult obstacles of this project was finding and recruiting people to interview that had both a proficient understanding of the topic being discussed and had time available to be interviewed with less than a three week notice. In the end, I emailed about three individuals and two organizations related to Basque, European Union, or Spanish environmental policy and only had one individual respond who was willing and able to interview with me. Dr. Iosu Madariaga is both a professor of ecology at the University of the Basque Country and had facilitated the creation of environmental policy of the Basque Country for about twelve years. While it would have been more beneficial to my research to have more than one interview, I was able to learn and therefore decipher the basics of how well environmental policy was being implemented and created both locally and nationally from the perspective of a local professional in the field.

Language

While researching this topic, it is important to note that most of the time, finding documents that were translated into English in regards to policies and legislation on the European Union and even the Spanish Level was a relatively easy task. However, though my grasp of Spanish is fairly proficient, most of the documents found originally for policies regarding the Basque Country were only found in Spanish or the local Euskara, meaning that I had to translate documents pertaining to environmental policy in the Basque Country myself.

This required me to double or triple-check to ensure the most accurate translation possible. Also, when sending emails asking for interviews, some of the people and organizations spoke primarily Spanish or Euskara. This meant that I had to translate what I was asking into Spanish, as I am not familiar with Euskara at all. However, after I had sent the emails I realized that they had a few grammatical errors of which could have made it very obvious that I am not a native speaker. This had the potential of making those who I would have been interviewing less interested to do so.

Results

Spanish National Accordance to European Union Policies

Air Policy Implementation

Based on the evidence found via documentation received by the European Environmental Agency from Spain, and from the understanding and knowledge collected from Dr. Iosu Madariaga, who has worked extensively within the field of this topic, the research has concluded that Spain as a whole has historically been doing better environmentally than it has in the past few decades, before the European Union had implemented policies regarding such a topic. Unfortunately, Spain is not currently completing all of the requirements deemed satisfactory by the European Union, nor is it projected to do so in the future based on the efforts and policies that are currently in place. Specifically, goals for 2030 surrounding different chemical emissions such as NH₃, PM_{2.5}, and NMVOC are projected to be unmet, as seen in Figure 1.¹⁶ This may cause potentially risky effects for the public health of not only the environment of Spain, but for the community itself. In fact, according to a study done by the European Environment Agency, there are almost 500,000 premature deaths in the entirety of Europe, over 33,000 of which occur within Spain alone.¹⁷

¹⁶ European Environmental Agency (2018, September 28). "Spain - Air Pollution Country Fact Sheet 2018". Found under section labelled "Emissions".

¹⁷ European Environmental Agency (2018, September 28). "Spain - Air Pollution Country Fact Sheet 2018". Found under section labelled "Premature Deaths Due To Air Pollution".

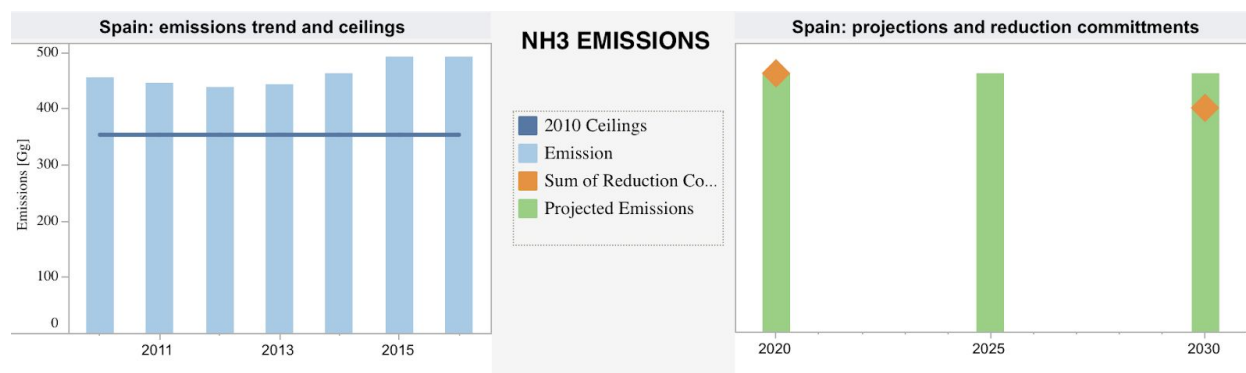


Figure 1. This illustrates the proposed measurements for NH3 emissions and the set maximums for such given by the European Union. *Source:* <https://www.eea.europa.eu/themes/air/country-fact-sheets/spain>

High amounts of pollutants, especially in urban areas, can lead to unwanted health effects, such as those seen with high levels of O₃, which Spain is currently experiencing. According to the European Environmental Agency, between the years 2007-2016, Spain has not only remained on average a mere 10 µg/m³ below the European Union's threshold for human health target, but the amount of O₃ in Spain has actually increased slightly over time. While this technically is in line with *Directive 2008/50/EC* as it is underneath the threshold for what is deemed safe, it has the potential for long lasting effects on Spanish citizens and the environment. Potential effects for high levels of O₃ on the human body include increased breathing issues such as asthma, or even cardiovascular diseases.¹⁸ Environmental effects for O₃ are nonetheless as serious as the human effects, as O₃ is one of the leading causes for increased average temperatures globally, and has the potential to change the terrain and ecosystem of Spain. If Spain does not implement additional policy regarding not only this specific chemical, but also policy regarding the emissions such as NH₃ the potential damage will be permanent, and thusly resigning Spain to a future of not even having the capability to follow the policies set by the European Union.

However, as previously stated, Spain isn't completely a lost cause. Although the levels of O₃ were increasing, NO₂ levels in Spain have consistently decreased, which lessens the effects

¹⁸European Environmental Agency (2018, September 28). "Spain - Air Pollution Country Fact Sheet 2018".

of environmental problems such as eutrophication.¹⁹ Spain is also ensuring the implementation of regulations for air quality measurements, with at least 75% of its stations reporting the measurements of the pollutants in the air daily.²⁰ It is necessary to stress that Spain merely needs to place additional emphasis and efforts into having a lower index of pollutants overall, and that comparatively to the past, they have improved. According to *The Environmental Implementation Review 2019 for Spain*, the main actions necessary to become environmentally satisfactory members of the European Union is the reduction of emission sources, specifically for pollutants such as NO₂, NO_x, NH₃ and both PM_{2.5} and PM₁₀.²¹ Therefore, the final conclusion is Spain overall is barely meeting the standards set by the European Union. To further elaborate, Spain is consequently not exceeding such standards, as they are barely meeting these standards in relation to air quality improvement and maintenance. Spain is not placing the necessary emphasis on air policy in the hopes to increase the quality at a much faster pace and thus reverse the effects of pollution. Spain is also thusly not meeting the self-assigned air quality goals and expectations within the nation and would need to improve their policy implementation and creation regarding such if it were to desire becoming a leader in environmental efforts.

Waterway Policy Implementation

While Spain has been generally following the air quality standards of the European Union, the same can't be said for its implementation of waterway policies. According to the *Environmental Implementation Review from Spain to the European Union* over the quality of surface water such as lakes and rivers, Spain as a whole is objectively worse than the averages of the other members of the European Union, especially in the “ecological status and potential” of the lakes within Spain, as can be seen in Figure 2.²² The effects from the lack of regard for the quality and maintenance of the waterways in Spain also has the possibility of affecting the water in other places within the European Union due to runoff into lesser regulated bodies of water, such as the Atlantic Ocean or the various seas and bays that Spain shares with the other southern

¹⁹ European Environmental Agency (2018, September 28). “Spain - Air Pollution Country Fact Sheet 2018”

²⁰ “Spain - Air Pollution Country Fact Sheet 2018”

²¹ The Environmental Implementation Review 2019 for Spain Pg. 22

²² The Environmental Implementation Review 2019 for Spain Pg. 25

countries of Europe. This is why there is such an emphasis on the improvement of water quality for all of the member states of the European Union.

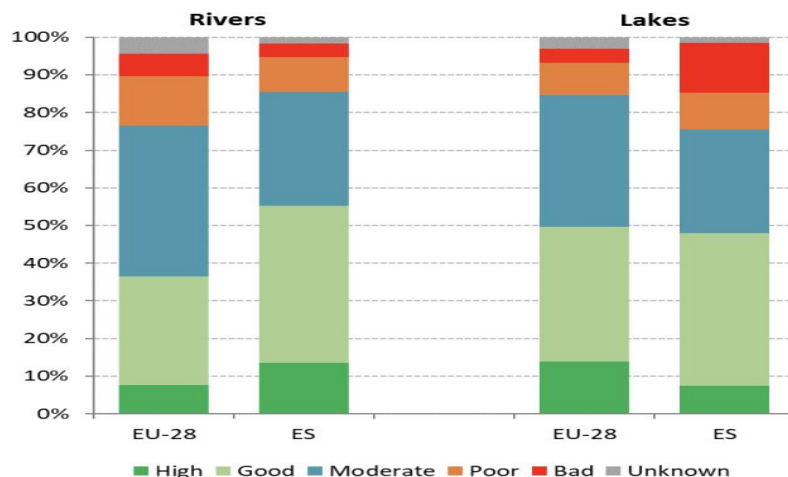


Figure 2. Ecological status or potential of surface water bodies in Spain. *Source:*

http://ec.europa.eu/environment/eir/pdf/report_es_en.pdf

Furthermore, this disregard for meeting the standards set by the European Union has gotten bad enough that the lack of proper chemical treatment of wastewater before reintegration and the general material pollution that the European Union is concerned with the overall effectiveness of the nation overall. Proof of this concern can be seen as Spain was recently taken to the European Court of Justice by the European Union for lack of reporting its creation and implementation of its River Basin Management Plan within the Canary Islands,²³ which normally would be regarded as merely bureaucratic issues, had the report not been almost 3 years late.²⁴ It is important to note once again that the River Basin Management Plans are the keystone to *Directive 2000/60/EC*, as they give direct reports to the European Union as to how each member state plans on improving the overall quality of their waterways. This argument was further confirmed by an interview conducted with Dr. Iosu Madariaga, who stated that in order to meet the standards given by the European Union, Spain needs to add funding towards municipalities that are concerned with overall water management and wastewater management. The Spanish

²³ Government Europa. (2018, March 16). "EU sues Spain over river basin management plans".

²⁴ European Commission. (2018, March 8). "Commission refers Spain to Court for not reviewing and updating its River Basin Management Plans in the Canary Islands".

Parliament isn't taking environmental policy seriously enough and the governmental powers in charge of implementation of these policies are using resources provided by the European Union ineffectively.²⁵ The conclusion for how Spain as a nation is adhering to European Union policy over waterway management is Spain is not meeting the expectations and standards of the European Union, thus meaning it is not meeting the standards that the nation itself claims to hold in high regard. This conclusion does not quite match the original hypothesis, as the prior belief was that Spain was at the very least meeting the requirements of the European Union, which merely indicates that, for the wellbeing of both Spain and Europe, Spain needs to place more emphasis and resources into managing the waterways.

Basque Accordance to European Union Policies

Air Policy Implementation

Based on analysis of literature written over the implementation of European Union air policy, it has been concluded that the Basque Country is meeting the requirements set by the European Union. According to reports by the Department of the Environment, Territorial Planning and Housing within the Basque Country, the proper measures have been taken in accordance to measuring the different pollutants in the air, such as using UV absorption to measure ozone levels or fluorescence to measure SO₂.²⁶ Such steps have also been proven effective, as can be seen in the *Annual Air Quality Report of 2017*, where the average levels of pollutants such as SO₂, PM₁₀, and CO have either decreased or remained well below the levels of the European Union Standards in the Basque Country.²⁷ An example of this as can be seen in Figure 3, which depicts the average annual readings of the different cities between the years of 2013-2015 of Sulfur Dioxide. As depicted, the Basque Country not only is well below the threshold for such, but is actually on average declining the concentration of Sulfur Dioxide, with

²⁵ Madariaga. (2019 April 29). Personal Interview.

²⁶ Gobierno Vasco. (2016 April 12). "Description of the Air Quality Control Network". Departamento de Medio Ambiente, Planificación Territorial y Vivienda. Website.

²⁷ Gobierno Vasco. (2018). *Informe Anual de la Calidad del Aire de la CAPV*. Departamento de Medio Ambiente, Política Territorial y Vivienda. Page 10.

the highest amount merely hitting about 20 $\mu\text{g}/\text{m}^3$ in 2017.²⁸ By remaining far below the limitations set by the European Union, the Basque Country is staving off possibly detrimental and irreversible damage to the health of both the citizens and environment of this community, as were previously discussed. For comparison, Spain's overall average amount of Sulfur Dioxide in the air in 2017 was about 22 $\mu\text{g}/\text{m}^3$,²⁹ meaning that the Basque Country overall is doing slightly better overall with air quality regarding SO₂.³⁰

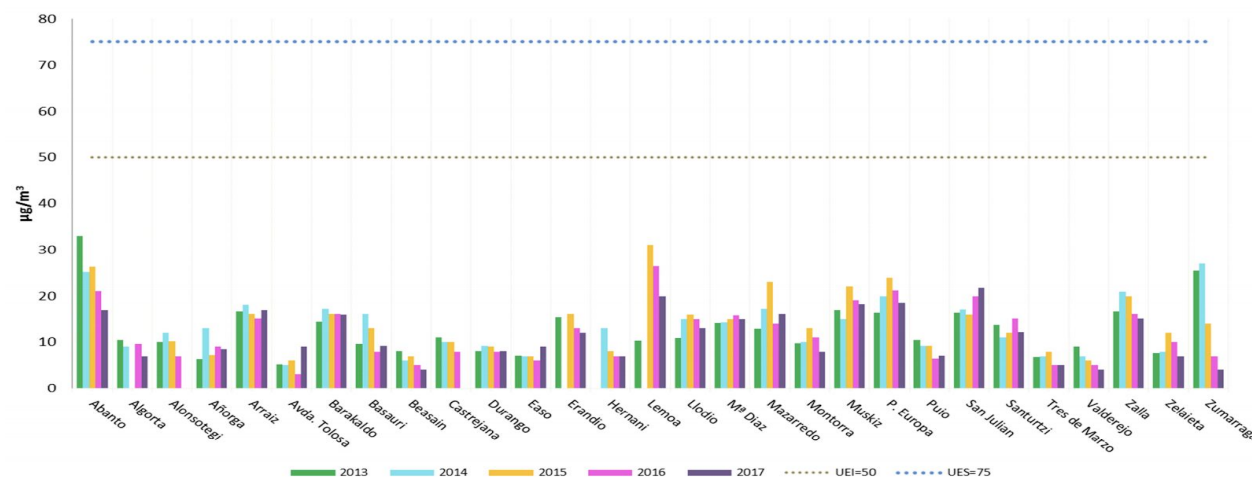


Figure 3. Annual Median Sulfur Dioxide Readings from various cities of the Basque Country from 2013-2017.

Source: http://www.euskadi.eus/contenidos/documentacion/informes_anuales_calidad_aire/es_def/2017%20castellano.pdf

Continuing on, the Basque Country has made additional efforts in collaboration with the European Union via different projects surrounding emissions and greenhouse gases in order to have the most effective implementation possible. An example of such collaboration is EU-TiVA, whose main objective is to “Produce a modified version of the existing Trade-SCAN tool package for the analysis of income, GHG emissions” and to later create a pocketbook over this topic.³¹ These collaborations and projects strengthen the validity and effectiveness of European

²⁸ Gobierno Vasco. (2018). *Informe Anual de la Calidad del Aire de la CAPV*. Departamento de Medio Ambiente, Política Territorial y Vivienda.

²⁹ European Environmental Agency (2018, September 28). “Spain - Air Pollution Country Fact Sheet 2018”. Found under section labelled “Emissions”

³⁰ “Spain - Air Pollution Country Fact Sheet 2018”.

³¹ European Commission Joint Research Center. (2018, December 10). “European Union Trade in Value Added, Jobs and Greenhouse Gases emissions (EU-TiVA)”. Basque Center For Climate Change (BC3).

Union policy implementation as it allows the European Union and European Commission to be actively involved with the policy being placed in the Basque Country, meaning that the Basque Country has a higher capability to follow the standards and requirements set by these organizations. Hence how the conclusion was made that the Basque Country is in fact meeting the expectations of the European Union surrounding air quality, which also thusly proves the hypothesis to be correct.

Waterway Policy Implementation

Along with air quality management, the Basque Country has also met the expectations of the European Union in regards to waterway management policy. According to a report by the Basque Water Agency in 2017 surrounding the chemical status of the river system in the Basque Country, “The overall results for the period 2013-17 show that 91% of the masses have a good chemical state, 92.6% meet environmental quality standards associated with preferred substances and 77% of the masses are in good or very good condition in terms of conditions.”³² These conclusions were based on the regulations from *Directive 2006/44/EC*, meaning that it was in direct conjunction with the expectations and regulations of the European Union by over 90%.³³ Furthermore, the changes due to the implementation of environmental policy have not gone unnoticed in the Basque Country, as there has been significant improvement in water quality and ecological statuses of rivers over the last thirty or so years, as can be seen in Figure 4.³⁴ The ability for such a high contrast in such a short period of time is due to the Basque Country’s shifting ideology from an area that needs to be merely industrialized to one that recognizes the economic potential of maintaining a clean and healthy environment, of which the river system plays a large part as there are over 160 noted bodies of water that are accounted for in the River Network of the Basque Country.³⁵ By maintaining the necessary standards for this number of

³² Basque Water Agency. (2018, May). *Red de seguimiento del estado químico de los ríos de la CAPV. Documento de síntesis. Campaña 2017*. UTE Laboratorios Tecnológicos de Levante – Ekolur Asesoría Ambiental. Page 24.

³³ Basque Water Agency. (2018, May). *Red de seguimiento del estado químico de los ríos de la CAPV*. Page 9.

³⁴ Gobierno Vasco. (2014, December). *Environmental Framework Programme of the Basque Country 2020*. Ministry of the Environment and Territorial Policy. Page 11.

³⁵ Basque Water Agency. (2018, May). *Red de seguimiento del estado químico de los ríos de la CAPV. Documento de síntesis. Campaña 2017*. Page 11.

bodies of water is no easy feat, thusly why it is impressive as to how well the Basque Country has been able to maintain and improve upon the quality of the different waterways within the region.

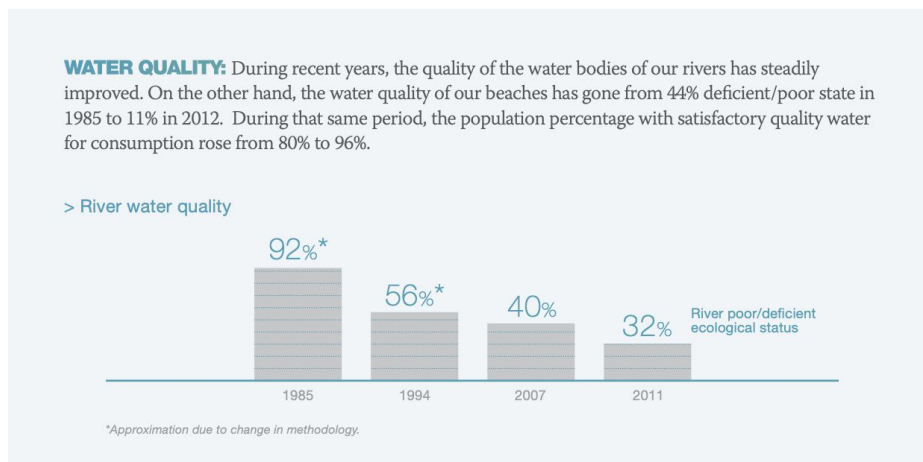


Figure 4. Within the last 30 years, river water ecological status has improved by about 60%. *Source:* https://www.irekia.euskadi.eus/uploads/attachments/6057/Environmental_Framework_Programme_2020.pdf?1426067174

In fact, while discussing the matter of policy effectiveness in an interview with Dr. Madariaga, the only advice given to how the Basque Country could better improve the effectiveness of implementing environmental policy is that the cities within the different regions of the Basque Country should try to coordinate their efforts more, such as having water treatment plants in only one or two cities in a region rather than having a treatment plant in every other city.³⁶ After examining all of the implementations of waterway quality management, it has been concluded that they are in order and following with the requirements set by the European Union, thusly meaning that the Basque Country is meeting the expectations of the European Union, which confirms the hypothesis. Also, as the Basque Country is meeting the requirements set by the European Union, it is to be concluded that it is also therefore exceeding the expectations of Spanish environmental policy, which once again confirms the hypothesis made prior to beginning research.

³⁶ Dr. Iosu Madariaga. Personal Interview.

Final Analysis of Basque Environmental Policy

According to the *2013 Environmental Performance Index of European countries*, the Basque Country ranked fourth overall in environmental performance.³⁷ As stated in an interview with Dr. Madariaga, this is no accident or incidence of sheer luck. Rather than follow the models and laws merely set by Spain, the Basque Country implements and follows the models set by the northern European countries, especially that of Germany. The reasoning for this is that historically, the northern countries of Europe have a greater ability to create and implement policy that is more align with the expectations set by the European Union. For the “German-based” Basque Model of implementation, the belief is that in order to better the environment, it is important to put into place long term plans rather than short term fixes that appear helpful.³⁸ Additionally, it is necessary to invest financially and temporally into environmental plans, which is believed to be Spain’s downfall when it comes to environmental policy plan implementation.³⁹

The Basque Country’s version of this long term, investment based model of environmental policy can be seen with new policy implementation and creation plans every four years or so, and with plans such as the *Environmental Framework Programme for 2020*. This programme’s specific objective is to create and assess environmental policy that is “aimed at using the social and economic opportunities provided by improving the environment to create wealth, employment and wellbeing,”⁴⁰ and continues to explain how by creating attainable goals, such as getting all levels of participation involved, from Basque Government all the way down to the citizens of the Basque Country will allow for the success of the region.⁴¹ These comprehensive plans allow for the environmental policy to have the highest amount of potency, and because of the effort and capability to execute such and show quantifiably vast differences

³⁷ Sustainalytics. (2018, May 14). *Second-Party Opinion Basque Government Sustainability Bond*.

³⁸ Madariaga. (2019). Personal Interview.

³⁹ It is also at this point that it is important to note that the Basque Country as a whole recognizes and aligns themselves more as European rather than Spanish, which is more so based off of the historical movements to become an independent nation rather than merely a region of greater Spain as stated in an interview with Dr. Madariaga.

⁴⁰ Gobierno Vasco. (2014, December). *Environmental Framework Programme of the Basque Country 2020*. Page 7.

⁴¹ Gobierno Vasco. (2014, December). *Environmental Framework Programme of the Basque Country 2020*. Page 23.

over time, leads to the conclusion that the Basque Country is doing its best to improve upon the environment within the region. Therefore, to do so, the Basque Country is taking the standards and legislation created by the European Union in earnest and is ergo meeting the expectations of the European Union, and overall exceeding the standards of Spain, which once again proves the hypothesis for this research to be true and accurate.

Conclusions

As previously stated, the Basque Country is an autonomous community within the nation of Spain. With this comes certain legislative and cultural liberties, of which do not go unnoticed by the community itself. However, as proven in this research paper, anything Spain can legislatively do in terms of environmental protection, the Basque Country can do just as well, if not better. Hence why in a world where rising temperatures, copious pollution, and rapid extinction are becoming an ever increasing epidemic, to the point where there is talk of such having completely irreversible effects on this planet, an emphasis on environmental protection is vital in the hopes of reversing such tragedies.

Therefore, after researching and comparing the legislative activities of the Basque Country and noting the improvements that it has made on its own environment, the political autonomy of the Basque Country has vastly improved the shared environmental resources such as the air and waterways. The Basque Country follows the expectations set by the European Union almost perfectly, and is expected to do so in the future as well. From this, the Basque Country should not only be used as an example for other communities within Spain but the European Union itself, as it is considered a leader within the context of the other regions within Spain. In regards to how this should affect the Basque Country politically, as it has shown proficient capabilities in a topic with such high risk consequences, additional competencies should be considered for the Basque Country in regards to the affairs within the area, as the government of the Basque Country has proved that it is more than capable to handle such with the benefit of its citizens in mind.

In the future, some possible considerations to take into account is looking further into how Spain as a whole can implement the European Union policies from the Basque model of implementation, as doing so may allow for Spain to boost the effectiveness of their policy implementations, and therefore better meet the standards set by the European Union. Finally, further research should be done in about five to ten years to compare how well the current environmental frameworks and projects affected the Basque Country in the long-term, rather than how they merely benefit the Basque Country currently.

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Appendices

Appendix I. Interview Consent Form



PARTICIPANT INFORMED CONSENT FORM

Title of the Study: Environmental Consciousness for the Politically Autonomous

Researcher Name: Miranda White

My name is Miranda White. I am a student with the SIT Policy, Law and Regional Autonomy program.

I would like to invite you to participate in a study I am conducting (as part of the SIT Study Abroad program in Bilbao, Spain). Your participation is voluntary. Please read the information below, and ask questions about anything you do not understand, before deciding whether to participate. If you decide to participate, you will be asked to sign this form and you will be given a copy of this form.

PURPOSE OF THE STUDY

The purpose of this study is to analyze the environmental policy implementation plans of the EU in both Spain and the Basque Country in order to determine if the Basque Country is meeting or exceeding the standards of such set by the EU as a politically autonomous community.

STUDY PROCEDURES

Your participation will consist of answering six questions and will require approximately 20 minutes of your time. With your permission, you may be audio recorded and notes regarding your answers may be taken.

POTENTIAL RISKS AND DISCOMFORTS

There are no foreseeable risks to participating in this study and no penalties should you choose not to participate; participation is voluntary. During the interview you have the right not to answer any questions or to discontinue participation at any time.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

There is no potential benefits to the participant.

CONFIDENTIALITY

Any identifiable information obtained in connection with this study will remain confidential if you would like it to remain so. Any and all recordings will be stored on a private drive and deleted as soon as the study is completed. If you choose to remain anonymous, names and information will be replaced with "Interviewee [X]". Any and all written notes from the interview will be disposed of accordingly.

When the results of the research are published or discussed in conferences, no identifiable information will be used if desired.

PARTICIPATION AND WITHDRAWAL

Your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

"I have read the above and I understand its contents and I agree to participate in the study. I acknowledge that I am 18 years of age or older."

Participant's signature _____ *Date* _____

Researcher's signature _____ *Date* _____

Initial one of the following to indicate your choice:

_____ (initial) I agree to have my name published in the final publishings of this research

_____ (initial) I do not agree to have my name published in the final publishings of this research

Consent to Quote from Interview

I may wish to use quotes or personal statements from the interview:

Initial one of the following to indicate your choice:

_____ (initial) I agree to having quotes or personal statements in the final draft of this research

_____ (initial) I do not agree to having quotes or personal statements in the final draft of this research

Consent to Audio-Record Interview

Initial one of the following to indicate your choice:

_____ (initial) I agree to being audibly recorded

_____ (initial) I do not agree to being audibly recorded

Initial one of the following to indicate your choice:

_____ (initial) I agree to notes being taken during the interview

_____ (initial) I do not agree to notes being taken during the interview

RESEARCHER'S CONTACT INFORMATION

If you have any questions or want to get more information about this study, please contact me at miranda.white@tcu.edu or my advisor at victor.trichot@sit.edu

RIGHTS OF RESEARCH PARTICIPANT – IRB CONTACT INFORMATION

In an endeavor to uphold the ethical standards of all SIT proposals, this study has been reviewed and approved by an SIT Study Abroad Local Review Board or SIT Institutional Review Board. If you have questions, concerns, or complaints about your rights as a research participant or the research in general and are unable to contact the researcher please contact the Institutional Review Board at:

School for International Training
Institutional Review Board
1 Kipling Road, PO Box 676
Brattleboro, VT 05302-0676 USA
irb@sit.edu
802-258-3132

Appendix II. Interview Questions

1. How would you describe the Basque Country's implementation of general mandates and policies created by Spain in regards to air quality management?
2. How would you describe its implementation of waterway management policies?
3. In the last 30 years, what improvements have you seen in the Basque Country based on the implementation of these policies?
4. In relation to environmental policy created by the European Union, do you believe the Basque Country is meeting or exceeding the expectations set for members of the European Union? How or how not?
5. Do you believe that Spain as a Member State of the European Union is meeting or exceeding those same standards? How or how not?
6. For the future of environmental policy creation and implementations within the Basque Country, do you have any suggestions for changes or improvements based on your observations of such?