

Climate Policy in Ireland & Estonia

A Quantitative Study of Climate Action in European Union

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ABSTRACT

The recent increase in climate warming has further increased the interest of climate policy in the European Union. In order to adapt to the climate change, policies must be implied to guarantee adaptation, and they need to be effective, even if members of the supranational organization have significant economic growth. Therefore, this research will examine what policies EU member nations, Ireland and Estonia, are undertaking to reach the climate neutral goals set by the European Commission. Both of these countries have had significant economic growth after the Paris Agreement in 2015, and there is a positive correlation between an increase in GDP and carbon emissions. However, an economic well-being can help diverting climate-related hazards and risks. Thus, the thesis is limited to processing key words, a content analysis, that will target the political platforms of two countries, in order to analyze their government's role in climate change and adaptation. The results indicated that both countries put business and economy in the center, however, Ireland is implementing the Climate Action program to shift their nation into a low carbon society and to adapt their businesses to climate change. Whilst Estonia is not heavily focusing on climate change, they are undergoing the same approach as Ireland, but they are looking for further economic growth even though they are also seeking to reach a low carbon society in the near future.

Key words: Climate Change, Adaptation, Vulnerability, Government, European Union, Ireland, Estonia

Words: 9273

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1 INTRODUCTION

1.1 Role of Government in Climate Change

Climate change is now widely accepted as a global issue. Research is indicating that human systems have caused significant climate vulnerabilities and it will take social, cultural, economic and political actions in order to counteract the climate change e.g., “decreasing poverty rates with economic development offers considerable opportunity to reduce sensitivity to climate risk and enhance adaptability” (Ford et al, 2011). Henceforth, climate policy is now placed at the center of attention for climate adaptation and questions arise such as “what should the government do in order for to reduce the effects of climate change?”.

Governments are considered to have two important alternatives in regard to climate change. Firstly, greenhouse effects are mainly initiated by increased amounts of carbon in the atmosphere and the main cause can be traced to the burning of fossil fuels. This will indeed have long term effects because carbon tend to stay in the atmosphere for hundreds of years, which indicates that the average temperature of the planet will continue to increase for generations ahead. Therefore, governments can play a significant role in decreasing the amount of carbon released into our atmosphere by imposing and enacting certain policies that encourage renewable and clean energy but more has to be done (Goodell, 2019). For instance, a tool which is widely used among governments around the world is *carbon tax*, “... a price that emitters must pay for each ton of greenhouse gas emissions they emit” (C2ES, 2020) and usually, these emitters tend to be the individual themselves, production facilities, energy sources and different forms of transportation such as airplanes and ground vehicles. This form of policy, carbon tax, will add an additional income for the government that can be reinvested in eco-friendly infrastructure improvements, such as renewable energy, in order to mitigate the carbon emissions and will also have an effect on the market, paving the way for corporations to seek clean and renewable energy in order to not pay additional tax. A study in the United States indicates that if carbon tax of 49 USD per metric ton carbon dioxide were implemented – 2.2 trillion USD will be raised in net revenues over a span of 10 years (C2ES, 2020). However, implementing carbon tax is a long-term strategy since it will initiate a short-term turbulence in the market that can devastate businesses who cannot switch to cleaner energy alternatives (Kimberly, 2020).

Secondly, governments have to adapt to climate change. The damage has already been done and future climate impacts will be devastating. Therefore,

governments are left with an important task: to reduce the impacts (Goodell, 2019). For instance, the intergovernmental organization UN sponsored program *Ecosystem-based Adaptation* aims to develop healthy ecosystems that can reduce the future negative impacts we are facing. “Coastal habitats like mangroves provide natural flood defenses, well-protected lakes retain water sources during droughts, and healthy forests reduce the risk of devastating wildfires” (UN, 2021). Integrating nature as a tool in such a way that it minimizes the climate-related risks are splendid examples of climate adaptation, especially on an intergovernmental level, and indeed, economic well-being plays a vital role in climate adaptation since developed nations with high GDP growth have shown less vulnerability to climate change mainly because of their economic growth that helps them discover these types of solutions and utilize them (Ford et al. 2011). These nations can prepare and adapt for climate impacts in a greater degree.

Thus, the government will play a significant role in combating the climate change. Areas of funding and regulating are essential tools mainly used by governments and institutions to ensure mitigation of carbon dioxide and climate risks along with long-term investments that will promise adaptation.

1.1.1 European Union: Climate Action

The European Climate Change Programme (ECCP) was already established in the year 2000. The main goal implicated environmental and cost-effective policies that shall be applied onto the member nations in order for to decrease the greenhouse gas emissions. Kyoto protocol, which was adopted in year 1997, was the catalyst for this program. Later on, in the year 2008; the first climate change package was agreed, and the targets were set for year 2020, with the main bullet points to be the following: “(1) Reducing greenhouse gas emissions by 20%; (2) increasing the share of renewable energy to 20%; (3) making a 20% improvement in energy efficiency” (EU, 2021). Continuously, Climate Action were adapted, and goals were set for both year 2030 and 2050, mainly because of the catalyst: Paris agreement, which increased EU’s climate change agenda by adding furthermore goals such as sustainable economic growth and environmental benefits for EU citizens by 2030, in order for to reach climate neutrality by 2050 (EU, 2021).

What is perceived by this information is that climate change is highly valued in the European Union. The supranational organization aims to influence its member nations to adapt to the climate change and to achieve these climate neutral goals. But questions arise, such as “does the members nations need corporate intervention to reach this goal?” or “is government intervention necessary?”. For instance, private corporations will allow the construction of more climate change adapted buildings that can protect occupants from unpredicted weather patterns, but for larger scale projects such as dikes, then the municipality, has to intervene and construct these dikes. “The decision on the dike could be made on the state level if not at the municipal level” (Konrad et al, 2014).

However, the principle of subsidiarity that is presented in Article 5(3) of the Treaty on European Union, suggests that the decision should be made on the most decentralized levels or lowest levels of governmental institutions, and therefore, in this case, allow the municipalities to do the appropriate measures without any national government intervention (TEU, 1992). Thus, corporate intervention might be necessary but should be influenced by the goals of the European Union and of course, carbon tax. Why? A market shift can efficiently occur if the governments of the members nation adapt to the goals of the European Union and implement, for instance, carbon tax, which will allow the corporations to shift their interest to climate adaptation. However, the subsidiarity principle will allow the government to shift their focus onto certain type of climate change policies: (1) Governments can focus on improving the EU citizens' knowledge of climate change through an improved information infrastructure. If there were to be no government intervention within the information sector, too little information will be provided to its citizens; (2) There will be economic consequences due to the climate change and therefore, the government got to intervene to counteract the possible disaster that the economy might face. An option is that the government will enforce an act that will make the insurance companies provide its citizens with "disaster insurance"; (3) GDP growth is necessary. The governments within the European union have to adapt a framework that will continue to foster GDP growth because poor societies tend to have low levels of education which increases the climate and disaster vulnerability within those nations (Konrad et al, 2014). However, GDP growth have also shown a positive correlation with increased carbon emissions, therefore, efficient policies have to be implemented in order to balance the GDP growth and the carbon emissions. This will be discussed later in the thesis.

1.2 Purpose

This research is aimed to analyze what governments of EU member nations are undertaking to reach the climate neutral goals set by the European Commission. The essay will enable researchers to understand what resources, policies and initiatives are being made to assure mitigation and environmental stimulation in order for to reach the goals. Thus, the thesis is limited to processing key words (content analysis) in the political platforms of the two countries with one of the highest GDP growth since the Paris Agreement in year 2015, through a quantitative method, in order to complete the analysis.

1.2.1 Research Question

The research question is henceforth: How far does the content of EU climate policies resemble the climate policies of selected EU Member States?

2 THEORY

2.1 Transnational to regional

The overarching narrative on climate change is politically conveyed by referencing carbon goals and explicit commitments established by global intergovernmental agreements. The significance of such global targets and political momentum to create synergies in the fight against climate change is undeniable. When it comes to execution, however, the agreements yield mixed results. Given both its exemption of developed countries from having to minimize their carbon footprint and its ambitious target-setting, which has proven to be overly optimistic, the effectiveness of the Kyoto Protocol (in force since 2005) remains strongly contested. The lack of substantial advancement on these issues through international agreements is attributed, among other things, to the top-down nature of obligations, which are signed by high-level government officials but must be enforced on a local level in the end. The lackluster outcomes of this top-down strategy can be attributed to the fact that current international organizations, such as the United Nations, are simply not designed for coping with global environmental issues and developing responses to them (Lilkov, 2018).

More than half of the world's population lives in or near cities, and current estimates suggest that this number will rise to 68% by 2050, as a result of migratory patterns and global population growth. As a result, cities and megacities are directly responsible for more than 70% of greenhouse gas emissions (Lilkov, 2018). In order to tackle this, the transnational agreements have to become more efficient, and target-setting along with policy enforcement should include full participation of regional authorities, local governments, counties and local non-state actors. According to some figures, state and local governments will be in charge of implementing more than 70% of climate-change mitigation initiatives and up to 90% of climate change adaptation measures. This model was represented by the Paris Agreement in 2015. Many concerned became more favorable to bottom-up approaches during the time leading up to this agreement, which began with the failed Copenhagen Conference of the Parties and ended with this agreement (Lilkov, 2018).

2.1.1 European Direction

Since the 1980s, the regulatory mode the EU Commission pursues has increased in popularity and has become the dominant policy mode. It is used in single market issues, conventional environmental issues, and increasingly in agricultural issues, and it allows for co-decisions between the Council of Ministers and the European Parliament, with the Commissions serving as an agenda setter and a legislative safeguard. Simultaneously, the conventional Community Method has become less common. However, some key aspects of climate change policy are still largely governed at the national level, such as energy policy and taxation, which are two notable examples. In these regions, agreements have greater intergovernmental dimension, with the European Council serving as the most relevant decisionmaker. The value of an EU-wide energy policy has risen steadily with ratification of the Lisbon Treaty, even though the Commission does not hold power and is restricted to directly affect national energy policies. However, in 2008, the Climate and Energy Package contains differentiated targets for renewable energy sources, as well as the Commission's right to assign a portion of the ETS certificates (Otterbach, 2011).

How effective is the EU in allowing members states to implement climate goals? Even though there is a lot of doubt on the EU's position in climate policy, both internationally and domestically in comparison to other policy areas, the EU's internal effectiveness, external continuity and coherence, and external effectiveness are still regarded as strong. The EU has long been a global player in climate change, has taken advantage of crucial opportunities to strengthen an international climate system, and has demonstrated significant diplomatic capabilities (Otterbach, 2011). Most notably, the EU should strengthen its role as a global leader in environmental protection. In the case of climate change, the implementation of the 2015 UN Framework Convention on Climate Change in Paris was a watershed moment for EU institutions and members states (Lilkov, 2018). In the historic talks, EU ministers, head of the European Commissions, and the French presidency of the UN Conference, played a very critical role which led to the Climate Action program and multiple climate goals to be set by the European Union, for years 2020, 2030 and most importantly, 2050. Therefore, this research will also enable the understanding for how effective the EU climate negotiations are, and how effective the implementations in each selected member states, are.

2.2 Developed Nations & Climate Policies

The European Union is considered to be one of the strongest economies in the world, and henceforth, is considered as a union of developed nations. These advanced countries have limited vulnerability to climate change mainly because of the communities within, such as the individuals and the institutions, which have an extraordinary number of resources that allows them to engage in multiple of actions to adapt and control climate-sensitive areas: (1) Industries; (2) Education; (3) Business; (4) Infrastructure; (5) Agriculture; (6) Health (Ford et al, 2011). However, the number of resources will allow research capacity to increase which results in increased awareness of climate change and the assessment of disasters or vulnerabilities will be completed in an efficient matter. Anyhow, this is just a general assumption and does not have to be accurate for all developed nations e.g., the United States which is the world's largest economy have failed with the adaptation and assessments of the current emerging risks, mainly because of the inequality of socioeconomics (Ford et al, 2011), and this can be shown by the recent disaster in Texas where electricity was shut down because of the power lines not being adapted to the unexpected storm (BBC, 2021). Whilst in the European Union, multiple countries have done climate change assessments on local level to decrease the level of vulnerability (Ford et al, 2011).

Nevertheless, developed nations tend to have an increased ability in adapting to climate change (Ford et al, 2011):

- **Information Infrastructure:** In order for nations to quickly adapt to climate change, an information infrastructure is vital. The capacity to assess and the ability to implement is derived from a well-built information system. Developed nations tend to have already initiated impact assessments and adaptation to emerging climate impacts on a national level.
- **Economic resources:** If nations hold a large access to economic resources – climate vulnerability will decrease. Economic resources allow institutional capacity to increase along with households, in order for to adapt, organize and avert climate-related hazards. Therefore, developed nations manage to be less vulnerable because of their favorable economic situation.
- **Institutional capacity:** Population with high income can mainly be found in developed nations. The general effect of this will be that the institutions will be more developed than in countries with low income. Therefore, an increased institutional capacity will suppress climate-related risks through an increased ability of identifying and recognizing along with anticipating climate vulnerability. “Institutions are generally well developed, funded, and staffed by a professional and highly educated workforce, with accountability ensuring proactive identification of future risks, planning for future burdens and underpinning institutional learning” (Ford et al, 2011).

- **Technological capacity:** Surveillance and early warnings systems are considered to be crucial in climate risk management. Consequently, technological capacity allows developed nations to increase the efficiency in adaptive planning through using technology to forestall climate related disasters. However, these nations should be aware of the fact that technology can be uneven and create new vulnerabilities.
- **Political challenges:** In order for developed nations to accomplish above mentioned bullet points, they will face political challenges. For instance, adapting to the climate change will require a whole reconstruction of multiple departments within the government. “Addressing these risks will require the creation of new governance structures, including increased participation of vulnerable peoples in decision-making, increased accountability, and financial commitments, and will entail potentially unpopular decisions by national governments.” (Ford et al, 2011).

Indeed, developed nations have an upper hand in climate risk assessments and counteracting disasters. However, they face one problem: aging population. This affects the nations negatively: (1) Decreased workforce. This will add an increased pressure on the government since rearranging departments within the government will require a lot of funding, and a lot of work. Therefore, a limited amount of the population will have to face the struggle to work and fund these adaptive changes; (2) Fatal risks. Elderly people run a greater fatal risk of heat strokes due to unpredicted heat waves, and they are in general at greater risk for climate hazards (Ford et al, 2011). Undeniably, most advanced nations will suffer an increase of health risks and will require an adaptation to administer, avert and diminish negative health consequences. The Swedish government is a great example of diverting and counteracting climate-related health risks by focusing on “water-related health risks, information campaigns, education of public health staff, enhanced surveillance, identification of risks sources (e.g., landfills that may leach pollutants), and upgrading of waste treatment facilities.” (Ford et al, 2011). Therefore, developed nations, such as Sweden, with well-built economy would contribute to an increase of climate-risk awareness and would also run greater chances of counteracting the climate-related impacts.

The selected countries for this research will be members of the European Union and henceforth, they are developed nations with high GDP growth and most likely a subject to high emissions (see 2.3). Besides from what these countries are capable of to do, for instance, this research will expect policies that enriches and focuses on the bullet points presented above in each of the selected countries’ manifestos. This is due to the fact that these countries might consider the technological approach to revert climate change, or at least, they might believe that these tools will have greater effect than any other method. It is also very important to map how they adapt to climate change, mainly because of two factors: (1) Reverting the effects of climate change; (2) Minimize the future costs of climate disasters. Therefore, these countries can conduct and implement certain policies within their manifestos or policy strategy that will help them reach these

two goals. It is very vital to conduct and maintain adaptation policies at low cost, and to keep the costs of climate change impacts as low as possible. Also, adaptation policies are required, such as direct government involvement, for example, in large-scale infrastructure projects, as well as promoting market-driven adaptation by private entrepreneurs e.g., to address knowledge barriers and moral hazard concerns (OECD, 2015). For countries with high GDP, this research can expect them to include adaptation policies that are beneficiary for them, not only climate-wise, but economically. Regardless of the efficacy of adaptation, mitigation policies are required to limit climate change thus avoid much of the harm, particularly in the long run, as well as to limit risks and avoid disasters. To avoid these long-term effects of pollution, urgent policy action is needed, which for the selected countries would be ideally focused on the full stream of potential avoided losses resulting from current pollution reductions, and also insurance to account for non-market damages, disasters, catastrophic accidents or other climate-risks (OECD, 2015). Underneath, two different policies that can be expected to be found in the selected cases will be presented.

2.2.1 Adaptation Policy

Adaptation policy can take two forms: (1) Stock, which refers to climate adaptation strategies that necessitate prior investment to build up adaptation resources. This adaptation stock mitigates potential climate change losses; (2) Flow adaptation, which applies to adaptation interventions that do not necessitate prior investments but reap benefits almost immediately. Government intervention can help with the efficient implementation of this adaptation e.g., overcoming information barriers (OECD, 2015). Stock adaptation is contemplated as public rather than market-driven, and as a result, effective implementation would necessitate government cooperation. Whilst flow adaptation is private and market-driven (OECD, 2015). In the case of this study, it is fundamental to understand if one of the selected cases is pursuing adaptation policy and how they are doing it (stock or flow). This will also give an insight on how the countries interpret the EU climate goals and how they implemented it in their policies, and also how they integrated it within society.

2.2.2 Mitigation Policy

The main aim of mitigation policies is to reduce greenhouse gas emissions. The degree to which mitigation policies are enforced varies by sector. Many policies related to renewable power, passenger cars, and forestry have resulted in strong mitigation of emissions (Fekte et al, 2021). Therefore, mitigation policies differ between countries, but they can be easily traced through the policies of a ruling government because of the fact that mitigation policies target certain sectors within the country.

2.3 GDP Growth and Greenhouse Gas Emissions

The correlation between economic growth and environment is complex. A well-built economy would contribute to increased climate-risk awareness and also an increase in efficiency when counteracting the impacts. However, economic growth is also considered to contribute to negative environmental consequences, such as an increase in carbon dioxide emissions (Cederborg et al, 2016). This would ultimately lead to that countries with high economic growth should distribute its wealth in a sustainable matter throughout society and to focus on diversifying its economy in order for to reach a sustainable economic growth with minimum negative effect on climate. Therefore, this complexity adds more interest to this thesis because the European Union is one of the leading economies in the world; are the fastest growing economies within this supranational organization adapting to or counteracting the effects of climate change? Before this research continues, three different graphs shall be presented, which will later on be applied to each case to allocate if the graphs represent their climate vision:

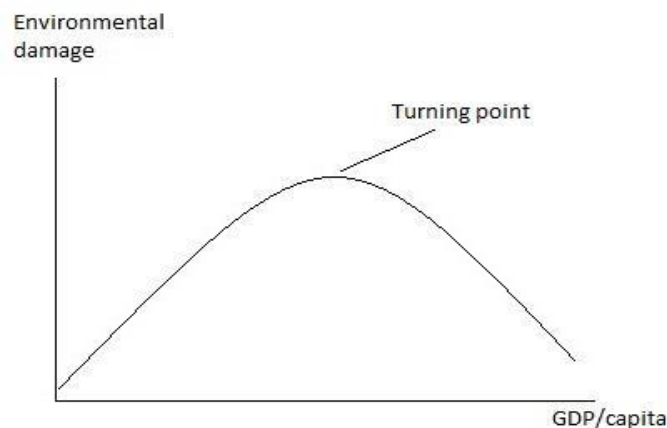


Figure 1. The Environmental Kuznets Curve (EKC)

The main aim with this graph is to indicate the economic transition of a country and the correlation between GDP growth and environmental impacts. When a nation switches from agricultural production to industrial production, the GDP will increase over time along with an increase of environmental damage since pollution increases. However, with time, income levels will increase, resulting in a transition from industrial production to high-technological and service production systems. This will in its turn increase climate-awareness, mainly due to high level of education and therefore, this is called the *turning point* where the GDP will continue to increase but the environmental damage decreases (Cederborg et al, 2016). However, environmental thresholds can be breached before the economy hits the EKC turning point. The possibility of minor changes causing catastrophic harm exists, and therefore, if the focus is exclusively on economic development to achieve environmental goals can be counterproductive e.g., increased investment on preserving diversity of species would not be able to resurrect extinct species (Everett et al, 2010).

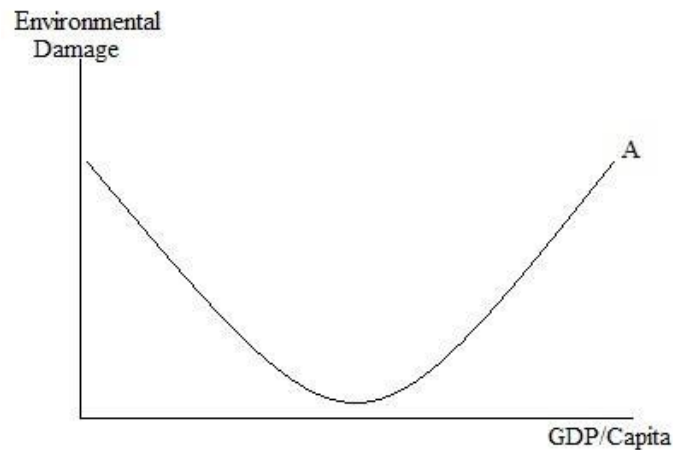


Figure 2. The Brundtland Curve.

The Brundtland Curve recognizes poor countries as entities that has already done environmental damage. These poor countries are considered to have already completed a certain amount of damage on climate-sensitive areas and these countries suffer high deforestation in order for to increase income. While the economy starts growing, the environmental damage starts to decrease due to a decrease in poverty (similar as the EKC curve), but when the turning point is reached, the country wants to continue maximizing its profits and its population wants to consume more – ultimately leads to an increase in pollution and environmental damage (Cederborg et al, 2016).

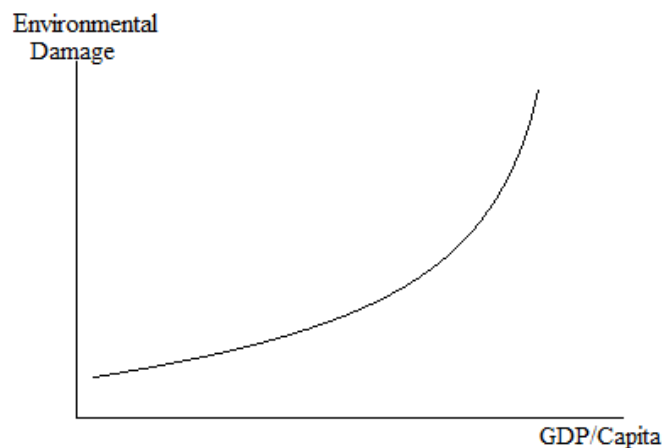


Figure 3. The Daly Curve

The ecological economist Daly argues that it is too late for a country with high economic growth to divert the environmental damage. “Daly states that although the incentives for a better, high quality environment might occur when a country reaches a particular point of wealth, the damage will already be too severe.” (Cederborg et al, 2016). As the economy grows on a constant level, it will reach an upward turning point where consumption and production increases which ultimately leads to an increased environmental damage.

3 METHOD

3.1 Methodological approach

This research will be conducted through a *content analysis*. Once the case is selected, an analysis of the presence of certain words, schemes, themes or concepts will be conducted. This type of method will allow this research to quantify and analyze multiple, and larger sets of variables (Columbia, 2021), and this will be conducted in this thesis in order to understand how governments within EU are counteracting the climate change.

3.2 Selection of Case

The choice of case for this quantitative research are the following countries: Ireland and Estonia. These two countries have had one of the greatest GDP growth in the European Union since the Paris Agreement in year 2015 (World Bank, 2019). This research will analyze if selected keywords appear in the party platforms which were published by the current ruling governments in each country. The reason behind selecting these two countries is because of the fact that there is a positive correlation between GDP growth and increased greenhouse gas emissions, but also increased potential to counteract climate change. Therefore, it will indeed be very interesting to analyze how these two fast growing economies comply with the climate neutral goals set by the European Union.

3.2.1 Case 1: Ireland

The Irish Central Statistics Office released its new national accounts data for 2015 on July 12, 2016. The data indicated high GDP growth, an increase of 26.3% higher than in 2014 (OECD, 2016). The key explanation for Ireland's high GDP growth rates is that, in recent years, a number of major multinational companies have migrated their business operations, and more importantly their underlying intellectual property, to Ireland, largely due to low corporate tax rates (OECD, 2016). During the COVID-19 pandemic in year 2020, Ireland's economy grew by 3%, making the country the only economy with a growth in the European Union. Furthermore, one the back of high private consumption, exports and a rebound in

investment, Ireland's total GDP growth is expected to increase by 3.4% in 2021 and 3.5% in 2022 (EU, 2021). However, parallel with the economic growth, Ireland's response to climate change seems to have already progressed through four phases. The first level, which began with the first Government Strategy in 2000, included a variety of new policies aimed at reducing the overall carbon emissions. The second stage seems to have been a retreat from this policy and a return to "business as usual", which was, predictably, not officially recognized. The third stage started in 2007 with the release of a new national strategy paper. The fourth level, which was recently completed, was an initiative by the Minister for the Environment, who is a member of the Green Party in the Fianna Fáil-led coalition government, to pass legislation dealing with climate change abatement goals (Kennedy, 2011). All of this has occurred in tandem with a significant rise in GHG emissions in Ireland, followed by a gradual decrease. In 1990, the emissions were 55,605 Gg CO₂ equivalent, and in 2001, they were 69,671.57 Gg CO₂ equivalent. Further on, emissions dropped by 3% from 2001 to 2003, hitting 68,575.06 Gg CO₂ equivalent, before increasing again 2004 and 2005. Emissions started to decline in 2007, and by 2009 (the most recent year for which data is available), they were 62,368.67 Gg, 10.5% lower than the peak in 2001, and 13% higher than emissions in 1990 (Kennedy, 2011). Emissions from energy usage increased by 45.1 percent between 1990 and 2001, accounting for the majority of the increase in emissions. The majority of this rise occurred between 1995 and 2001, when emissions increased at a rate of 5.5 percent per year on average as Ireland witnessed extraordinary economic growth. Between year 2000 and 2004, the rate of economic growth slowed, which, together with the close of ammonia and nitric acid plants, as well as continuing declines in cattle populations and fertilizer use, resulted in some reductions in emissions in 2002 and 2003. Though, the steady rise of greenhouse emissions from 2003 to 2005 was mainly due to increased pollution from road transport and electricity generation, which saw two new peat-fired power plants come online. However, the economic recession resulted in a major reduction in pollution in all sectors of the economy (Kennedy, 2011).

What can be concluded is that Ireland have had significant economic growth in recent years. However, their modern history indicated economic growth from the 1990s which significantly increased the country's greenhouse gas emissions. As noted, the economic growth between 1990 and 2001 increased their emissions by 13% (average 5.5% every year), which is another indicator that confirms that there is a positive correlation between GDP growth and increased pollution. Subsequently, the economic recession in the early stages of the 2000s resulted in a decrease in overall emissions. Having said that, what makes Ireland an interesting case to analyze? This is a country that have had the main focus on economic growth since the 1990s, and in the beginning of the 2000s, many climate policies were implemented to halt the increased emissions. However, the Irish economy is growing faster than ever since the Paris Agreement and since there is a positive correlation between economic growth and increased emissions, how will they manage to comply with the climate goals set by the EU? Will Ireland give up the chase for economic growth and mainly focus on climate

change, or will the country implement the EU climate goals and somehow still create more economic growth? These are questions that arise regarding this case, especially the question of whether the positive correlation between GDP and emissions is actually accurate. Will Ireland continue its significant economic growth even if they implement the climate action goals in their policy? Through content analysis, this research will be able to find and map the climate policies (set by the EU) implemented in the ruling government's policies (Fianna Fáil) and therefore analyze the resemblance and also find answers to how Ireland will revert their emissions.

3.2.2 Case 2: Estonia

Estonia became independent in year 1991, due to the fall Soviet Union. The emissions were incredibly high and economy very poor, indicating a very underdeveloped society by the first years of the country's birth (Worldbank, 2019). However, the country has ever since witnessed a fascinating economic growth with a big decrease in overall emissions, compared to the Soviet era, and since the independence. Although, the emissions have increased during recent years due to economic growth. While the effects of Covid-19 dampened the economic activity in year 2020, the economy is expected to resume growth during 2021 as domestic and external demand gradually improves. A strengthening labor market is expected to raise incomes and, as a result, private consumption, while reduced uncertainty encourages investment. A downside risk to the outlook is the continuing newly implemented Covid-19 restrictions throughout whole Europe. However, the economy is expected to rise 4.1 percent this year, and 3.5 percent in 2022, according to economists (Focus Economics, 2020). But what makes Estonia an interesting case in this research? Well, the fact that the country is fairly new, one of the main and heaviest aims of Estonia is economic well-being. This is considered very important for the country and their focus is to maximize their economic activity, especially after the effects of Covid-19. Therefore, it is interesting to analyze how far the ruling government implement EU climate goals in their policies. Does the ruling government want to interfere and maybe decrease the economic growth in order to tackle the negative consequences of climate change? The difference between Ireland and Estonia is that Ireland have already seen economic growth since the 90s, whilst Estonia just became independent. The Irish government and parliament already set out climate change goals in the early phases of the 21st millennial and have been combatting the negative consequences already since then, but in the case of Estonia, it's different. Estonia set their major climate goals in recent years, in April 2017, were Estonia's Government and Parliament approved a plan for achieving a long-term emissions reduction goal of 80% reduction in GHG emissions by 2050 compared to 1990 levels. Estonia is therefore, on parliament level, complying with EU Climate Action program. Also, the Estonian Parliament approved the country's low-carbon plan, called "General Principles of Climate Policy until 2050" in 2017 (Ministry of the Environment, 2018). However, the latest Estonian parliamentary

election was held in 2019 and the Reform Party won the elections, which remained the ruling party of the nation, and since the long-term climate plan of Estonia was published by the Parliament, will the Reform Party include this climate plan in their newly published policies which they presented on their website? Furthermore, the economy is forecasted to grow within the upcoming years, how far and how much will the ruling government, Reform Party, of Estonia implement the EU climate goals in their policies? These are the questions that arises and makes this case interesting to analyze. It will also help the research to understand the results with more depth.

3.3 Keywords

Climate, and *environment*, are selected to quickly assess the involvement of this word in the political manifestos of the parties, which can indicate the importance of this matter for the parties. Usually, these words are combined with other climate-related aspects, e.g., climate-risk or climate adaptation, which can add a new perspective into the usage of the keywords.

Climate Change is a very important keyword in this analysis. Firstly, this is the main title for the climate issues, such as increasing global average temperature and unpredicted weather patterns (EPA, 2021), the whole world is facing. Therefore, the word climate change is related to a very critical component, and that is *nature*. Since it is the foundation for human survival and growth, a valuable resource, and a prerequisite for long-term economic and social development. After the industrialization of human society around 1750, and combined with substantial rise in human activities, the Earth's already variable climate has been greatly affected by such human behavior. The rate of increase in global temperature is quickening and the evolving environment is having a direct effect on natural ecosystems and the global economy. Human development has been marked by interactions and relationships among individuals, the economy, society and nature. However, in recent years, it has become clear that climate protection is a new and non-traditional problem (Chao, 2018), and that indicates how important this topic, and keyword, is for the political sphere. Therefore, it will be vital to include this keyword in the research specifically for its importance.

Climate Action is at the core of the European Green Deal from 2019. The deal included a broad range of policies aimed to lower greenhouse gas emissions, increase investment in cutting-edge science and innovation, and also protecting Europe's natural environment (EU, 2021). The climate action will include these following initiatives: (1) Initiative to enshrine the 2050 climate-neutrality in the European Climate Law; (2) Engage citizens in climate action; (3) Reduce greenhouse gas emissions by 55% at year 2030; (4) Climate-resilient society by 2050 (EU, 2021). Therefore, the selection of the keyword climate action is significant and central in this research. It will allow the research to understand if

the governments of Ireland and Estonia have incorporated this specific EU program in their manifestos.

Adaptation, the reason behind this selection is that it is often involved in climate policies. The good news is that climate change adaptation opportunities exist, are achievable and can often be incorporated into current policy goals. Therefore, climate adaptation is on the agenda of politicians and this is not somewhat new, indeed, the challenge of adaptation to policymakers have existed as humans have long lived with climatic variability and evolved management strategies to deal with it (Ford et al, 2011).

The next keyword would be *carbon* and this keyword will play a specific role. Firstly, including just this word will allow the research to investigate how this word is used in different contexts. For instance, carbon can be used in contexts of carbon dioxide, carbon emissions or low carbon society etc. Secondly, it is also interesting to analyze if national government take part of the lowering or removal of carbon dioxide, the main greenhouse gas, from the atmosphere. This can be conducted by different measures, such as technical advancements or policy-strategical *carbon tax*, in order to revert the effect. Future carbon dioxide emissions in the twenty-first century would therefore result in adverse climate change that are ultimately irreversible (Solomon et al, 2009). This indicates that carbon is of essential meaning, and the EU itself aims to combat the emissions: “The EU emissions trading system is a corner-stone of the EU’s policy to combat climate change and its key tool for reducing greenhouse gas emissions cost-effectively.” (EU, 2021).

Energy and related services are becoming increasingly important for human social and economic growth, welfare, and health. Energy services are needed in all societies to meet basic human needs including health, lighting, cooking, space comfort, mobility and communication, as well as to serve as generative processes. The energy sector’s two overarching challenges on the path to a sustainable future are maintaining energy supply and reducing energy’s contribution to climate change. Many countries’ recent national policies include initiatives, and growth plans, which focuses on renewable energy. Even at transnational level, the *Open Working Group* suggested a set of global Sustainable Development Goals (SDGs) at the United Nations in New York, which included 17 goals and 169 objectives, which many of them addresses renewable energy (Asantewaa, 2016). Therefore, renewable energy is on many countries’ national agenda and plays a vital role in climate change. Including the keyword *renewable energy* in this research will allow us to understand how the governments are reverting the effects of climate change through renewable energy, and secondly, renewable energy is considered very important by EU and that will allow the research to further understand how the governments implement climate goals set by EU in their policies. More than 75% of the EU’s greenhouse gas emissions are related to the energy sector. Increasing the share of renewable energy in various sectors of the economy is thus a critical component of achieving an integrated energy system that meets Europe’s climate neutrality target (EU, 2021).

Green, emission, fossil fuel, temperature, sustainable are all used to further analyze and find contexts of climate aspects in the manifestos.

3.4 Material

This thesis will conduct a content analysis on the Irish Fianna Fáil's (current ruling party in Ireland) party manifesto *An Ireland for all* from 2020. Also, a content analysis will be conducted on Reformierakond's (Reform Party), current ruling party in Estonia, webpage. There, the party presents all their policies, including an environmental policy. However, the content analysis will be conducted on all their presented policies.

The Reform Party's website is very similar to a normal political manifesto. Conducting a content analysis on the policies presented on their website will be similar as to conducting a content analysis on Fianna Fáil's manifesto, however, what poses weaknesses is the fact that the governments can agree and support specific policies which gets published through the parliaments of each country. For instance, if the Reform Party does not include much environment policies in their website, they might support and stand by a legislation made by the whole parliament which is very climate friendly. This can although present a new perspective to the study e.g., the party supports climate legislations which gets published by the parliament but if the climate policy content in their political manifesto is limited, that might explain that the party did not have a major role in the legislation and that they actually do not prioritize the legislation.

3.5 Limitation

Limitations shall be noted for this research. The main aim is to analyze and count the occurrence frequency of the selected keywords in each party platform. The usage of the words will also be accounted for, this will enable the research to understand if the word is used in the context of the research. Thereafter, the results will be used to analyze how far each of these national governments include climate related aspects, as set by the EU, in their policy platforms Therefore, once the results will be presented, which indicates the appearance frequency of the selected keywords, an interpretation section will demonstrate in what context the keywords were used in, and furthermore, a discussion will review the results.

4 APPROACH

4.1 Result 1: Ireland

KEYWORDS	NUMBER OF TIMES USED
CLIMATE	47
CLIMATE ACTION	10
CLIMATE CHANGE	32
ENVIRONMENT	16
ADAPTATION	6
CARBON	24
GREEN	17
EMISSION	14
FOSSIL FUEL	5
TEMPERATURE	1
RENEWABLE ENERGY	3
SUSTAINABLE	36
NATURE	6

4.1.1 Interpretation: Fianna Fáil

Fianna Fáil has implemented many climate-related policies within their manifesto. Results indicate that the manifesto displayed a considerable number of keywords, especially the keyword climate which was used in 47 occasions, mainly in the context of climate change and climate action. Therefore, to begin with, these results indicate how effective the negotiations and implementation of EU climate goals are. It is clear that the government of Ireland is seeking to comply and fulfill the goals of Climate Action:

“Climate Action is a key priority for this government. I welcome the publication of this legislation, which reflects the commitment, ambition and targets set out in the Programme for Government on climate issues. This legislation is truly groundbreaking and will have a transformative impact on our society and economy into the future. Collectively as people, we must embrace this

agenda and work tirelessly to protect and save our planet for future generations to live in” – Mícheál Martin, Taoiseach, PM & Party Leader Fianna Fáil, 2020

Ireland is set to start initiatives that will prepare Ireland’s transition to a low carbon economy. The main aim is to diversify its economy into more sustainable sectors, and this is much accounted for. For instance, the government wants to invest a lot of monetary funds into the Agri-Food sector, and the Forestry sector. The ruling government is heavily focusing on the economy in regard to climate change e.g., the country wants to continue increase its rising income levels in order to amplify the quality of institutional capacity and more economic resources will contribute to technological developments which can increase the efficiency of detecting climate-related vulnerabilities. Therefore, the noticed intention of Ireland’s climate policies is to benefit the economy, growth and adaptation to future market shift:

“I am confident that the decarbonization of the economy will present significant opportunities for Irish business. Whether that be in the huge expansion of entire industries, such as retrofitting or offshore wind, or in the creation of innovative solutions to the adaptations that will need to be made, the early movers with the most ambition will see the greatest opportunities. Thousands of jobs will be created, and we will need to ensure we have a strong pipeline of skills to respond. The annual Climate Action Plan, which started last year and is now being underpinned by this legislation, will provide clear actions which will give certainty to business and all sectors to know what is coming down the tracks.”

- Leo Varadkar, The Tánaiste, Deputy Head of Government, 2020

It is clear that Ireland is basing their climate action strategy to benefit business. This is a country that have had focus on economic growth since 1990s, and through this analysis, the country is still having the focus on economic growth but adapting it to climate change. Ireland is therefore not giving up the chase for growth in the case of climate change, instead the country is adapting the economy through enabling both stock and flow adaptation policies that seek to subsidize businesses and invest in necessary sector to mitigate climate change losses. Parallel with stock adaptation, the content analysis also indicated that flow adaptation is available and will be used to help businesses establish and adapt to the climate related market shift.

The presence of the following keywords: Adaptation, carbon, green, emission, fossil fuel, temperature, renewable energy, sustainable, nature and also environment were significantly used by the ruling government party, mainly to argue for Ireland’s four climate goals: 1) Low Carbon Future; (2) Ensuring a just transition; (3) Invest in climate-friendly infrastructure; (4) A world leader in addressing climate change. What this indicates is the fact that Ireland is not only pursuing adaptation policies, but also mitigation policies. Indeed, the analysis is indicating that Ireland is having both economy and climate change policies as the main goals, but the country is also looking to reduce the greenhouse gas emissions and that, by a lot. For instance, the low-carbon future goal is basically set to

transition the energy sector into more renewable energy, ensuring that passenger cars are more climate friendly and since the country is both investing in agriculture and forestry, this is a big indicator of mitigation policies that will reduce the overall emissions:

“The Climate Action bill is a radical departure for Ireland and one that puts our country on a new course. It creates a new target to reach carbon neutrality by 2050, which will change our economy and society at every level. We will change how we heat our homes, generate power, move around our country, grow our food and run our businesses. It sends a clear signal to every sector that it must reshape its activities to reduce emissions. I believe it also creates great opportunities for Ireland to be a leader in renewable power, repair and retrofitting, sustainable agriculture and the circular economy. This is where the jobs of the future will come from. Our young people have told us it is time to act and today we are answering that challenge, by putting our commitments into law.”

- Eamon Ryan, Minister for the Environment, Climate and Communications, 2020

Ireland's economy started to grow already in the 90s, and already by the early 2000s, the country set climate change policies to revert and reduce emissions. The economic growth has led to a significant increase in private consumption and general growth which causes large emissions. However, this analysis has indicated that Ireland is truly going through a transition to a low carbon future, and the policies are very clear, adaptation and mitigation policies are now set to change the country. The content analysis indicated through the keywords: Adaptation, carbon, green, emission, fossil fuel, renewable energy and sustainable, that the country is seeking to transition to high-technological and service production systems, which the economy is currently heavily based on, and this will increase the climate-awareness among businesses and most importantly, the population, and this will make Ireland reach a turning point where the GDP will continue to increase but the environmental damage decreases. This is clear through the content analysis since the manifesto is integrating economic aspects with climate related policies in order to create a fast-growing sustainable economy with mitigated emissions. Therefore, the EKC curve seems as the most suitable theory to Ireland's climate policies, but the country is also running a big risk of not reaching any turning point. This is due to the fact that the ruling government might have its full focus on economic development to reach environmental goals and this can result in an opposite effect, such as none of the climate goals will be achieved but the economic ones will be reached.

4.2 Result 2: Estonia

KEYWORDS	NUMBER OF TIMES USED
CLIMATE	0
CLIMATE ACTION	0
CLIMATE CHANGE	0
ENVIRONMENT	22
ADAPTATION	0
CARBON	0
GREEN	0
EMISSION	0
FOSSIL FUEL	0
TEMPERATURE	0
RENEWABLE ENERGY	0
SUSTAINABLE	3
NATURE	1

4.2.1 Interpretation: Reform Party

The ruling government in Estonia displayed limited use of the selected keywords. However, a significant use of environment was displayed and through this, the party suggested multiple environmental-friendly guidelines.

First of all, the Reform Party suggest that the general population should live an environmental-friendly lifestyle and the businesses should implement climate-friendly production methods. These are mainly reached through regulations and taxes that are aimed to reduce emissions. The keywords sustainable was used three times and mainly in the context of environmental sustainability, and indicating that individuals and corporations, and also nations, should incorporate sustainable ways of living to reduce emissions and benefit the environment. This is a proper indicator of mitigation policies, although there is no specific method or policies presented, it is still very understandable through what the government is suggesting: reducing carbon emissions. This main mitigation policy that exists in the party's policies are the regulations and taxes that are aimed to reduce overall emissions. However, there are no signs of adaptation policies and there are no future goals set in their political platform.

There was no sign of the Climate Action program in the platform and the European Union is not mentioned. Since this research is based only on political platforms or manifestos, the focus shall only be on these two platforms, and therefore, it is possible to conclude that Estonia's ruling party is not fully complying with the goals set by the European Union. This can indicate that the negotiations and implementation of the EU climate goals were very ineffective between these two entities. The only information presented was the fact that the

Reform Party acknowledges climate change and that they aim to work with different solutions to divert the climate-related risks, but there were no signs of how that will be conducted.

However, the economic growth of Estonia has been very significant the latest years, and this research does indeed keep in mind that this is a fairly new country. The country seems to have its main focus on economic growth, and since it is a very small country, its climate related policies will not have any global effect, although it is very important for the nation to adapt to the future climate market shift. Even if it seems like the EU has been ineffective with Estonia, it might not be the case. In fact, Estonia is aiming to increase educational levels in the country and also shift the economy, this will later on help to divert the climate change risks. Henceforth, the EKC curve can also be implemented in Estonia's case, and this is mainly due to the fact that the country is new and still growing, and it has not reached the turning point yet as Ireland just did. Therefore, Reform Party might have not implemented the EU climate goals in their policies yet, but they are definitely aiming to reduce emissions and comply with climate change goals, in order to reach the turning point at the EKC curve in the near future. But first, the country has to grow further and continue the focus on economy.

5 DISCUSSION

The results indicate that Ireland and Estonia are both aiming to reach the turning point of the EKC curve. However, Ireland is closing into the turning point because of their significant economic growth since the 90s and their implementation of climate change policies already in the early 2000s. In the case of Estonia, the country became independent in the early stages of the 90s and they have witnessed an economic growth ever since, although the majority of the growth happened in recent years. Therefore, one could argue that Estonia is very similar to Ireland since they have a similar modern economic approach, but Ireland is still way ahead in the growth sector, but nonetheless Estonia is on a good path.

Continuously, the material used in the content analysis indicated that Ireland is heavily focusing on the climate action program, initiated by the EU, and they are aiming to adapt and integrate their economy with their new climate policies. They believe that the climate change will cause a market shift and their businesses need to be up to date and do the shift as well. In the case of Estonia, this is different, and it obviously got to do with the material used. For instance, the parliament in Estonia presented a climate program *General Principles of Climate Policy until 2050* already in 2017, which marks the first major climate change policies initiated by the country. This program is supported by the whole parliament, including the government, and their aim is similar to Ireland's, and that is to reach a low carbon society in the near future. The interesting part here is that this program is not mentioned in the party platform of the Reform Party. This is an indicator of how serious this program is taken and how far the country is willing to go to implement this. As discussed in the analysis, Estonia might have their focus only on the economic growth because of following reasons: (1) Economic growth in focus, and this is mainly due to the fact the country might believe that they want to grow their economy to establish better institutional capacity, technological developments and such, before they reach the turning point. Also, in order to reach the EKC turning point, the economy has to shift to more technological productions and services, instead of industries, and that might be the focus of this country; (2) The country might not put climate change as the priority policy at the moment because Estonia is rather a small country, with limited production and their effect on the global climate is very low in comparison to other European countries. Yes, they are complying with the low carbon future idea, but however, the only reason they might comply with it is the fact that the market shift is undergoing, and their economy needs to be up to date in order to grow. Therefore, Estonia might not consider that they have impacted the climate change as much as other countries and instead, they understand that this is the path the developed nations are taking, and they want to be considered.

This study is contributing to research regarding the new climate policies initiated by the EU. For instance, this specific study tackles the issue of climate governance, which is both timely and important. Climate security, and economic development is put in focus and especially within the European Union, who consists of countries with high growing GDPs. What this study has tackled is the fact that it analyzes the effectiveness of supranational organizations and the implementation of climate policies in member states, especially among high developing countries. Therefore, the results have shown that these countries aim to implement climate policies, not just to benefit the climate, but also to benefit their economy. This governmental behavior is unique, and this study is indicating that countries might implement climate change policies only if it somehow can benefit their businesses. Henceforth, this study has contributed with the fact that economy and growth will always be in the center for policies, even though climate change is the most relevant and biggest global issue that the world is facing.

5.1 Conclusion

Ireland is definitely seeking to comply with the climate goals set by the European Union and henceforth, their positive correlation between GDP growth and emissions will tend to decrease in the near future because the nation is aiming to reach the EKC turning point by implementing the climate action program in their policies. For instance, their aim of reaching a low carbon society is indicating that the government is looking to find technological resources that can minimize their carbon emissions and also grow their businesses with more sustainable strategies in order to adapt to the new market shift the climate change is introducing (such as renewable energy). However, Estonia is somehow complying with enabling the goals set by the European Union, even though they presented inexplicit environmental policies in their platform, but the fact that the whole parliament have agreed on a low carbon future program, that means that the country is mainly focusing on growing the economy for now, and in the future, reach the EKC turning point after establishing a fully modern technological society with high institutional capacity.

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