

Influencer in the Global Political Arena - The Impact of the OECD on Environmental Policy

Wissink, Pien

Citation

Wissink, P. (2023). Influencer in the Global Political Arena - The Impact of the OECD on Environmental Policy.

Version: Not Applicable (or Unknown)

License: License to inclusion and publication of a Bachelor or Master thesis in

the Leiden University Student Repository

Downloaded from: https://hdl.handle.net/1887/3608482

Note: To cite this publication please use the final published version (if applicable).



INFLUENCER IN THE GLOBAL POLITICAL ARENA - THE IMPACT OF THE OECD ON ENVIRONMENTAL POLICY

M.Sc. Public Administration (Economics & Governance)

Leiden University

Supervisor: Dr. Johan Christensen

Pien Wissink

S2030640

January 6th 2023

Word count: 20.459

ABSTRACT

Battling climate change and tackling environmental issues are becoming more urgent every day and yet action still falls behind. Therefore, expert knowledge is necessary to help the decisionmakers understand what course of action is best. This thesis examines the influence of expert bodies on environmental policy and aims to answer the question what the extent of influence of the OECD is on the environmental policy of countries. The data is collected from the ten most recent Environmental Performance Reviews through three research methods. The combination of the citations analysis, the discourse analysis and the preference attainment approach allowed for exploratory research with multiple points of view. The citation and discourse analysis discovered that the concept 'Green Growth' has developed into a concept with more than one meaning. The preference attainment method provided evidence that supported the expectation that the OECD does have influence on their member states since every country adopted policy instruments of the policy framework. It also confirms that technical difficulty, economics capacity and political preferences are important factors when it comes to influencing environmental policy. Lastly, a correlation between vulnerability to climate change and the number of adopted policy instrument was not found, but there were similar trends which is motive for further research.

TABLE OF CONTENT

1. INTRODUCTION	6
2. THEORY	10
2.1 What is expert influence?	10
2.2 What is the role of experts in international governance?	11
2.3 How is environmental policy influenced by experts?	14
2.4 How does the OECD influence national policy?	16
2.5 Theoretical framework	18
3. RESEARCH DESIGN	21
3.1 Case selection	21
3.2 Research Design	22
3.3 Data	23
3.4 Operationalization	25
3.5 Validity and reliability	27
4. ANALYSIS	30
4.1 Discourse analysis	30
4.2 The policy instruments	34
4.3 Vulnerability correlation	45
5. CONCLUSION	48
5.1 Linking results and theory	48
5.2 Limitations & further research	52
5.3 Implications	54
APPENDIX I EPRS ANALYZED	55
APPENDIX II DATA COLLECTION TABLE	56
REFERENCES	57

Pien Wissink

LIST OF ABBREVIATIONS

EPRs Environmental Performance Reviews

EU European Union

GHG Greenhouse Gasses

GLAS Green, Low Carbon, Agri-Environment Scheme

NAPCP National Air Pollution Control Programme

OECD Organization for Economic Co-operation and Development

OMT Outbreak Management Team

PCSD Policy Coherence for Sustainable Development

PISA Programme for International Student Assessment

UK United Kingdom

WTO World Trade Organization

Pien Wissink

LIST OF TABLES AND FIGURES

Table 1 Indicators	26
Table 2 Vulnerability	27
Table 3 Policy instruments implemented	35
Table 4 The extent of influence results	44
Figure 1 Vulnerability Correlation	45

1. Introduction

It often gets overshadowed, but the consequences become more and more visible. Climate change is a problem that does not get the attention that it needs because of more acute problems, like war and economic crises. Meanwhile, the planet we live on is fragile and we are coming to a point where it is too late to save it. Decades ago, the end of the 1950s, scientists already warned about climate change and that it was something we had to worry about (Pester, 2021). By the end of 1990 most of the scientists pressed that action was necessary but the fossil fuel companies and other opponents influenced the governments greatly to a point where they did nothing. In the years that followed wars were started and an enormous economic crisis hit the world, all reasons why actions against climate change were put on hold. Fast forward to this summer, the summer of 2022, one disaster after the other hit, all related to global warming. Horrific videos of forest fires in Spain, Portugal, France which set a new record for wildfire destruction (Deutsche Welle, 2022). Contributing to the risk of forest fires was the extreme dry summer. The drought affected harvest and the energy sector, and caused water shortages (BBC News, August 2022). But not only in Europe there are problems, in the US the biggest lake and water reservoir which is the power source of a big region, is in trouble and it has only 27 percent left of its capacity (Anguiano, 2022). Rain, however, will not improve the situation which has become painfully clear in Pakistan where there have been devastating floods after a period of extreme drought which flooded a third of the country (Team, 2022). Extreme weather is only one of many examples of consequences from climate change.

Another crisis that started in 2021 and is still going on, is the energy crisis. It might not be immediately clear, but it is definitely related to the problems of the lack of action on global warming. This problem is only one aspect that could have been different if action was taken sooner and more was invested in sustainable green energy. There are other aspects in society that need to change, that need to be more sustainable if we wish to take action against global warming. In 2011, the OECD launched the Green Growth Strategy to promote sustainable economic growth in order to fight climate change (OECD, 2011). The OECD presented the Green Growth Strategy, an operational policy with indicators and channels that should promote sustainable economic growth. Since then, the OECD regularly published updates on how the member states are adopting the Green Growth Strategy. In the report of 2015, it was stated that countries were adopting the strategy in their national policies to move towards sustainable economic growth (OECD, 2015). However, only one-third of the member states adopted the strategy framework and the progress is very little and only in specific areas. Most countries are

taking measures in pricing pollution and are giving incentives to efficiently use resources. The report emphasizes that the finance and economics ministries have an important role here, because the environmental challenges that are the key to Green Growth need to be overcome by economic policy making.

The challenges that are most common in the member states are regulating the price on carbon, the pricing instruments for water, waste and transport, and most of all reform in tax systems to accommodate environmentally related taxation and getting rid of harmful disparities. These small improvements and the difficult challenges were still visible during the 2017 report of the OECD (OECD, 2017). The report stated that in terms of carbon, energy and material the environmental productivity has improved, just like the recycling of waste. But there are big differences between the member states and there are factors that shrink the improvement, especially in the international trade carbon emissions are not improving. In the 2015 report the OECD declared that governments had to accept that economic and environmental policy go hand in hand in the future and that they had to start today and thus stop the "business as usual" policy (OECD, 2015). In 2017, coherence in the policies was not yet reached and it is one of the factors that slows down the transition to Green Growth (OECD, 2017). The OECD regularly updates the progress of the initiative, as they did in 2015 and 2017 about how the development of sustainable economic growth is going. What they did not do is to look at how much impact the initiative had on the environmental policy in the member countries. Did the government use the indicators given by the OECD for sustainable economic growth? How much of the initiative can be found in the policies of the member states? Do the member states take on the advice of the experts of the OECD? But also, is there a difference in influence between the different member states?

This thesis examines these questions and will try to find out how much influence the OECD actually has on the member states. There is extensive literature on the influence that the OECD has on the policy of the member states (Eccleston, 2011) and the advice of the OECD is often accepted without any discussion an is seen as neutral and objective (Littoz-Monnet, 2017), but is it the same when it comes to environmental policy? The past years showed that when it comes to climate change actions are often put off. So, does that mean that environmental policy is harder to influence or are there different ways to achieve impact? The OECD keeps track of the progress of the Green Growth Strategy in their updates, but is not measuring their influence on national policy. So, the research question that this thesis is aiming to answer is as follow:

To what extent does the Green Growth Strategy of the OECD influence the national environmental policy of the member states?

Structure of the thesis

To answer this question, it is important to know how policy can be influenced by experts which is why the concept expert influence will be elaborated on in the next chapter. The next chapter, the theory chapter, will also explain in a general sense how international expert bodies have influenced national policy in the past, going beyond the OECD. The second part of that chapter will be about how environmental policy is influenced by expert groups. The third chapter is about the research design. For the documents that reflect the national environmental policy of the member states I use the most recent Environmental Performance Reports from the OECD which are about the progress of the countries towards sustainable development. I choose to look at the ten most recent Performance Reviews because it is published about ten years after the initial publication of the Green Growth Strategy and it is more likely that countries already implemented (a part of) the policy framework. In order to get a full rounded answer to the research question, the research design consists out of three parts. I start with a combination of a citation analysis and a discourse analysis about the concept 'Green Growth' to get a clear view on how Green Growth is used in the context of the EPRs. In the second part, the influence is measured by the preference attainment method where I translate the policy instruments of the framework into ten indicators. The EPRs are analyzed for those indicators and the number of indicators found indicates the extent of influence. Lastly, the ten countries are compared to see if a correlation between climate change vulnerability and the extent of influence can be established. This gives a possible explanation to why the OECD has more influence in some countries and less in others. The results and the empirical analysis of the research is discussed in chapter four. The conclusion and discussion can be read in the last chapter.

Academic and societal relevance

Expert groups are known to be actors in the policy making process, but for a long time they were seen as groups that advice the decision-makers without wanting to gain something off it themselves. Recent research has proven that experts present their research to policymakers with the goal that their preferred policy is adopted and implemented which also happens in many occasions, for example in the Netherlands, COVID policy was mostly based on the advice of the expert group 'Outbreak Management Team' (OMT). So, that expert bodies influence policy

is a fact, but the extent of that influence on policy is not sufficiently researched and that is what this thesis is aiming to do.

The OECD is the subject of this thesis which is a well-known, trusted and objective expert body from which advice is often accepted without debate (Littoz-Monnet, 2017). A logic expectation then would be that their influence is strong, however in this thesis their influence on environmental policy is measured and that is different from the influence of OECD on other policy areas. Environmental policy is a bit different than other policy areas since climate change was an ambiguous subject for a long time and action is often put off because other problems are more pressing at that time. These circumstances make it harder to influence environmental policy which makes it interesting to see if an expert body like the OECD still has the strong influence as they have in other policy areas. Aside from the OECD, the influence on environmental policy has not been researched much at all which makes this thesis even more relevant. Maybe the result is that environmental policy is so complex that expert bodies need a different approach to be able to influence national policy.

Another reason why this is an interesting subject to do research on is because taking action on climate change is important since the world is feeling the consequences more and more and the world cannot wait any longer for action to be taken. For society it is essential to know if national governments adopting policy framework that helps to achieve sustainable development, because if they do not, action can be taken. Society can protest and demand the government to do more. On top of that, the answer to the question why governments are still not doing everything they can to counteract climate change needs to be answered.

2. Theory

Before focusing completely on the Green Growth Strategy and how it influenced the environmental policy of the European member states, it is important to create a theoretic framework on how expert bodies have influenced policy in the past. This chapter consists of three parts. In the first part I elaborated on expert influence; what exactly is it and how can it influence policy. The second part answers the question to what extent international expert bodies have influenced national policy in the past. The last part of this chapter looks into environmental policy and how that specific area has been influenced by expert bodies.

2.1 What is expert influence?

Expert influence is a concept that long has been neglected in current academic literature since experts were seen as actors who were informing and not influencing the decision-makers and thus they did not seem interesting. Because of the lack of interest and attention to expert influence methods to research it have been falling behind or in other words there has been little methodological innovation. To explain the concept of expert influence I use the conceptualization by Christensen (Christensen, 2022). According to that conceptualization expert influence is: "The ability of expert actors – i.e., groups, bodies or organizations composed of individuals with specialized knowledge derived from academic training – to shape a policy decision in line with their knowledge-based preferences." (Christensen, 2022, p. 2). With this definition come two assumptions. To be an expert you have to have some kind of autonomy from other actors. Moreover, an expert is not someone who is only informing the decision-makers, but it is an actor who is actively trying to influence the politicians who make the decisions. This definition, however, has multiple other concepts that need to be defined. First of all, when is someone an expert? An expert actor is an actor who has had academic training in a specific field and thus has specialized knowledge which is developed in their professional practice. An example of this is an international organization e.g., the WTO. The WTO is an organization specialized in trade, but also in dispute settlement. They have specialized knowledge in that area and with that they influence other states (Kennedy, 2005). Secondly, what are preferences? They are derived from their expert knowledge and those preferences are expressed in the advice or document that the expert publishes. Lastly, what are policy decisions? They are the end result where the influence of the expert and their preferences becomes visible in the public policy; could be in one or in multiple policy decisions. Moreover, there are some assumptions when it comes to expert influence. For a long time, experts have been seen as actors who inform policy makers, instead of influencing them. However, in this context, experts are seen as a type of actor that is trying to shape a policy decision, not only inform the policy makers (Christensen, 2022).

An expert actor has to be someone or an organization who has a deep understanding of a certain knowledge area and on top of that has a certain degree of autonomy which is necessary in order that policy makers and politicians respect and accept the advice the expert actor is giving. In this case, the OECD is the expert that has autonomy from member states because of the reputation the OECD build over the years of being a neutral organization with knowledge on multiple policy areas. The OECD wants to influence the member states and is doing that by publishing a policy framework with policy instruments to achieve sustainable economic growth and better national environmental policy.

2.2 What is the role of experts in international governance?

In the global arena expert bodies have been present for a long time. However, their role in that arena seemed to be only as advisors instead of actors that influence the policy process. One of the founding researchers for altering the advisory point of view is Peter M. Haas who wrote an article about epistemic communities in international governance (Haas, 1992). Not everybody or every group is an epistemic community, but expert bodies do fit the four elements that Haas provides in his article. First of all, experts share beliefs which leads to a value-based rationale for the members. Secondly, besides normative and principled beliefs, they share causal beliefs as well and that services as common ground for connecting policy actions with preferred outcomes. Thirdly, an epistemic community believes in the same notions of validity. And lastly, have a common policy enterprise which is as set of general practices related to a set of problems. These epistemic communities that Haas refers to are knowledge-based experts who influence international governance by shaping policy ideas and framing issues for debate. It is not only the states that have influence on policy, but also experts who can express their interests and give advice to make sure their interests are represented in the national policies.

Even though, the article by Haas has been published in 1992, experts were still often overlooked in the following years when it came to actors that influence policy. How come that experts were, or maybe still are, overlooked? Why was the influence of experts neglected for so long? David Kennedy (2005) ends his article with the quote: "We overlook the work of experts, and understand only dimly the working of expertise itself." (Kennedy, 2005, p. 25). He explains this by arguing that the foreground is considered most important when it comes to

decision making in global politics (Kennedy, 2005). With foreground is meant the decisions that are being made by parliament and presidents. In the background, experts are working on norms and institutions and for a long-time people thought that the background only informed the foreground and not influence it. However, as Kennedy mentions, often the experts express their preferences and shape with that the foreground. In other words, shaping the foreground is experts influencing policy making. Sometimes expert bodies are excepted as actors who influence countries, but only when it is deemed normal. A good example is the World Trade Organization (WTO) which is known for settling disputes between nation states. Everybody has been accepting that the WTO handled this, but what is special here is that there is background rule and not foreground.

An aspect that could be an explanation to why actors are overlooked and why they are only seen as advisory bodies, is because they do not make the decisions themselves. Instead, they are trying to influence the decision-makers who are politicians. That means that the policy choices are still made by politicians and thus are highly political because policymakers want to be in control even when they are delegating authority (Haas, 1992). Cases where the scientific evidence does not clearly point to a direction tend to be even more political, an example of such cases are international environmental issues. In highly political sensitive situation, the knowledge that experts provide are not always used for the greater good and is used by politicians to back up their own positions (Littoz-Monnet, 2017). To conclude, even though Haas established in 1992 that expert bodies, aka epistemic communities, are actors in the international political arena, they are often overlooked. Their knowledge is not always used for the greater good, instead politicians use it to strengthen their own positions in political sensitive issues. However, there are situations where expert bodies do influence, or are more likely to influence, the international governance.

The first situation where experts have more influence is the situation of 'uncertainty', because uncertainty creates demand for expertise (Haas, 1992). There is uncertainty when the long-term consequences of taken measures are hard to predict and thus the research can be ambiguous. In environmental cases there often is uncertainty and conditions that come with those cases are that "actors must make choices without "adequate information about the situation at hand" or in the face of "the inadequacy of available general knowledge needed for assessing the expected outcomes of different courses of action"." (Haas, 1992, p. 13-14). So, why does the demand for expertise increases with issues that have a lot of uncertainty. The first reason is that the focus on power is absent when there is uncertainty which means that leaders have trouble finding their allies and do not know which strategy is the best. The second reason

is that institutions become useless because there is too much turmoil that procedures stop working. Boswell agrees with Haas on this matter and argues as well that when there is a lot of uncertainty scientific expertise is important (Boswell, 2017). Organizations or countries need external expertise for decision-making and forming policy. While scientific expertise is necessary here it might not always be sufficient to find solutions for the upcoming issues because of the different ways the problems and challenges can be interpreted. A great example of such issue is climate change, a problem where not everybody agrees on the definition and severity.

The second situation is when decision-makers are in need of legitimacy, because expert knowledge may increase legitimacy in governance (Littoz-Monnet, 2017). It can increase legitimacy because in the global political arena there are risks and consequences from the actions you take derived from the policy that is made and "evidence-based" policy has proven itself as the best way to evaluate these risks and consequences (Littoz-Monnet, 2017). Often international expert bodies are promoting being evidence-based and objective, for example, the OECD has these "core values" on its website. To form this evidence-base policy the use of expertise is necessary. The definition of specialized, or "expert" knowledge that is used here are "the forms of codified knowledge that are either produced by specialists (as indicated by qualifications or institutional affiliation); or which involve specialist or technical methods, equipment or accumulated knowledge that is generally assumed to require skills and experience not possessed by professional administrators." (Littoz-Monnet, 2017, p. 2).

Expertise can be used in different ways, in five ways according to Littoz-Monnet, in policy-making processes. The first way for which expertise can be used in the process is to inform and guide policy. In the international arena there often has to be dealt with complex and technical issues for which deeply understanding expertise is necessary. Haas argues that "the more complex and ambiguous the policy problems, the greater their entrepreneurial role in policy." (Littoz-Monnet, 2017, p. 7). Expert bodies can also be used as a legitimation mechanism when there is no democratic source for legitimacy. Experts can deliver "indisputable" data and knowledge which builds trust in proposals. While decision-making in the international arena is often very political, expertise can be used to depoliticize a certain decision or action. The knowledge experts provide are not always used for the greater good and is used by politicians to back up their own positions; substantiating policy positions is the fourth way. The last way that expert knowledge can be used by international organizations is to become more secure and stable. When you have expertise in a certain policy area it helps developing instruments in complex and technical areas and can help to expand in new areas.

Moreover, expert bodies can have influence because they are involved in the resources that are accessible to international organizations. Besides that, experts can influence the organizations in a more subtle way by setting global agendas, giving them the data that they need or framing policy issues.

To conclude, the literature distinguishes two situations where expert knowledge is needed and wanted. However, just like Kennedy acknowledges, more research on how expert influences decision-making is necessary, even though the example of the WTO background rule deemed as normal is an important observation (Kennedy, 2005). When it comes to figuring out how expert bodies can influence national policy there has been research, but not as much as on other actors in the global arena for which the reason is the changing point of view on the role of expert bodies, from advisory to influencing. What is certain is that experts can influence how problems are seen and what viable solutions there could be. This can be seen in the OECD Green Growth Strategy as well. The OECD stated climate change as a problem and gave a sustainable economic growth as a solution. What needs to be figured out is how this international rapport can influence national policy, but before that can be researched it is important know whether the rapport had influence on national policy and to what extent.

2.3 How is environmental policy influenced by experts?

In order to answer the research question of this thesis, it is important to know how environmental policy has been influenced by experts. In this section articles are discussed on what makes environmental policy difficult and different. It discusses the conditions for influencing and making expert-based policy as well.

Rietig explains that environmental policy, and climate change, is a difficult topic in politics but that experts play a key role in shaping decisions (Rietig, 2014). Meaning, experts are very relevant when it comes to climate policy, also because it requires evidence-based decision-making and international cooperation. Rietig wants to answer the question how the influence of experts expresses itself, what countries do with the input from the experts and how experts should express and give their advice for maximum impact. The problem of climate change is put in similar words by Rietig as in the introduction of this thesis; "time is running out; those who cause the problem also seek to provide a solution; the central authority needed to address them is weak or non-existent; and irrational discounting occurs that pushes responses into the future." (Rietig, 2014, p. 143). These circumstances make it harder to give input as an

expert, however it makes it even more interesting to see if they succeed especially since so many expert bodies try to influence and give their input on climate change.

Sprinz and Vaghtoranta (1994) agree that environmental policies are not easily shaped and are different than other policy areas. One of the factors that has more influence on this kind of policy is the economic capacity, as was mentioned earlier as well (Sprinz & Vaghtoranta, 1994). Haas established the role that epistemic communities play in forming policy, but as Sprinz and Vaghtoranta argue this is different in environmental policy. They say that it is more the content of the knowledge that has impact and not so much the existence of knowledge in policymaking. Elaborating on the fact that in environmental policymaking the rules are a bit different, Andresen et al. asked the question whether a scientific consensus is necessary for effective policy outcomes (Andresen et al., 2000). This is an important question to ask in the environmental and climate field since researchers, especially years ago, are not always on the same page when defining climate change or the best actions that need to be taken. In their book, they take two aspects into consideration: the integrity and autonomy of experts and the involvement of these experts in the process of policymaking. Andresen et al. come to the conclusion that the nature of a problem and the state of knowledge have more influence on to what extent science is used in the policy outcomes than institutional arrangements. However, it is still not clear what the precise role of that knowledge is on environmental policymaking, only that it is more important than institutional procedure in evidence-based policies.

An additional factor that makes influencing environmental policy harder is the position a country can have towards climate change. Academics do not always agree on the best way forward, but so do politicians (Andresen et al, 2000). Per country the opinion of climate change can be very different. Sprinz and Vaghtoranta distinguish four types of stances countries can have that influence their view on climate action and regulating that internationally. They came to these four categories by looking at indicator's ecological vulnerability and abatement costs and combined them. The first category is pushers who want a lot of international regulations and the opposite is draggers who want none of that. The intermediates and bystanders are in the middle but still a little bit different. The intermediates want to take action and some regulation, but do not want the (high) costs that come with it. The bystanders are the other way around, they do not have interests in regulation, but the costs to do something are not very high and thus want to take a position which makes them different from draggers. The conclusion of the article by Sprinz and Vaghtoranta is, "Besides the impact of scientific knowledge and epistemic communities, policies are mainly shaped by a country's ecological vulnerability and economics capacity to control environmental degradation." (Sprinz & Vaghtoranta, 1994, p. 84). Another

important factor when it comes to influencing environmental policy is that politicians tend to only use the expert knowledge that will help them in their cause and their political beliefs (Rietig, 2014). An important result of the research done by Rietig is that experts need to approach political actors and decision-makers proactively. With doing so they increase the influence of their advice. An important sidenote here is that they do need to stay academically neutral or otherwise politicians will be scared away. With being neutral an expert can influence policy making.

To conclude, environmental policy is hard to influence for many reasons but mainly because climate change is a subject not everybody agrees upon and the policy makers need to have a deep technical understanding of the problems. That is the reason why experts are necessary in this field and they can be successful, but that depends on a few conditions. One of them is that it works in favor of the expert to have a good relationship with the government. The expert also needs to be neutral and objective. However, there are factors that experts cannot influence which is that politicians tend to only use the knowledge that they found helpful for their cause and the amount of climate action taken depends on how much the country is affected by climate change.

2.4 How does the OECD influence national policy?

Now that we have answered what expert influence is and how environmental policy can be influenced by them, it is useful to look at the influence of international expert bodies in general. Knowledge of expert bodies can be used in different ways and can influence international policy. There are differences, however, between the expert bodies and the amount of influence they have. In the case of the OECD, you could say they have considerable influence since they have built a name for themselves which is that they are indisputable and their recommendation are often accepted without any debate (Littoz-Monnet, 2017). How does the OECD influence national policy? How and where is their influence visible? What did they do to have impact on national policy? These questions are answered by looking at two cases; the OECD initiative called PISA (Programme for International Student Assessment) and another initiative called PCSD (Policy Coherence for Sustainable Development).

An example case from how an international expert body influenced national policy comes from the OECD. The OECD is an organization that has a lot of different expertise areas and initiatives from which PISA is one of them. PISA measures 15-year-olds' ability to use their reading, mathematics and science knowledge and skills to meet real-life challenges."

(Breakspear, 2012). Simon Breakspear (2012) wrote an article about whether and how the PISA influenced policy in different countries. There are three points on how PISA made impact on national policy or decision-making processes. First of all, the PISA program resulted in policy discourse with decision-makers. One of the countries where this happened was in Korea where the results of the program caused that policy makers take gender difference seriously. The second point is that PISA is used by national actors that their overall or specific performance needs to be better. In the UK, they saw that the general scores in PISA are higher than in their country which was cause for action and reforms. So, in short, PISA results are a standard for performance and equity. The last point in Breakspear's report was that the results are used as indicators for policy choices and improvements. In Scotland, they use the PISA results as a main test to see how they are doing on the international rankings. To conclude, in Simon Breakspear's report it becomes clear that the PISA results are being used all over the world for policy and decision-making purposes. The question remains whether this applies to OECD Green Growth strategy.

A different way of how the OECD influenced national policy is through the 'Policy Coherence for Sustainable Development' (PCSD) concept (Zeigermann, 2018). There is no clear definition on what PCSD is and not everybody agrees on the same one, but it comes down to cooperation policies that affect poor countries have to promote sustainability and ending poverty, not only in their own country but also in the developing ones. The concept of Policy Coherence for Development (PCD) has been around since the early 1990s and the OECD later added 'Sustainability' to the term because of the link to the Sustainable Development Goals (SDGs). Besides the OECD, the EU was working on this concept as well. They produced innovative ideas, but it was the OECD who came up with indicator and a framework in their Focal Point Meetings. The OECD started to come with new publications on PCD and developed a monitoring framework so that the progress on PCSD in countries could be tracked. On top of that, they linked the PCSD to the implementation of SDG 17 and set up a platform for that cooperation. Zeigermann describes the OECD as that "it has no power but great influence" (Zeigermann, 2018, p. 141). That the OECD has influence on the policy of member states becomes clear, again, with the PCSD concept. The OECD publishes indicators and framework that countries can use in their policy and with that they have great influence on the policymaking process but indirectly also the discourse of the policy. They create platforms where countries can stay in touch and cooperate and with that, they create an arena where the OECD is always involved.

2.5 Theoretical framework

In order to answer the research question a couple of underlying questions need to be answered first by the existing literature. The most important one is: how can experts influence policy? Once that is established more light will be shed on the exceptions of environmental policy and how the OECD has influenced policy in other cases.

The kind of influence that this thesis is measuring is the influence of experts. Experts can be individuals, groups or organizations that have specialized knowledge about a certain issue (Christensen, 2022). Since they have that knowledge because they are academically trained in the matter, they have the ability to share that knowledge with, for example, politicians and decision makers. By sharing their knowledge, which represents their preferences, they influence policy. However, the extent of that influence can differ per situation, for example there are situations where the need for expert knowledge is bigger which leads to stronger influence of the expert body. The literature provides two situations where it is more likely that policy is influenced by experts. The first situation is when there is uncertainty which means that it is unclear what the consequences of certain choices are and expert knowledge helps with understanding the technical difficulties and thus create a better policy (Haas, 1992). Climate change is an example of a situation of uncertainty, because academics are not always agreeing on what the best steps are and what type of action need to be taken. On top of that, with climate change, policy makers do not always have all the information that is needed, and that gap can be filled with the information of the experts. The second situation where experts can have a stronger influence on policy is when the policy is in need of legitimacy. The knowledge of the experts can be the basis for an evidence-based policy which evaluates best the risks and consequences of certain policy actions (Littoz-Monnet, 2017).

The influence of experts in environmental policy differs a bit from other policy areas. Multiple academics, one of them is Rietig, state that environmental policy is hard to influence and to give input on (Rietig, 2014). According to Rietig experts have three approaches to gain influence on decision-making; experts need deep and broad knowledge in their field, experts need to create a relationship with the involved actors, and experts need a network of local politicians and state's representatives. But even though an expert or expert body has all these factors, it remains hard to influence environmental policy since it is a highly politicized policy area and politicians tend to only use the expert knowledge that will help them in their cause and their political beliefs (Rietig, 2014). Another factor that makes it harder to influence environmental policy than other policies is because it is dependent on the economic capacity of a country (Sprinz & Vaghtoranta, 1994). Moreover, the vulnerability of a country to climate

change also creates a difference between countries to which extent they are more likely to be influenced. The more climate change affects their country, the more they are open to international cooperation and adopting international rules (Sprinz & Vaghtoranta, 1994). Thus, environmental policy is harder to influence than other policy areas because it is a highly politicized issue, action depends on economic capacity and the vulnerability to the effects of climate change matters as well.

The OECD published the Green Growth Strategy in 2011, but has published many other initiatives and framework before and after 2011 as well. The OECD is a well-known expert body whose advice is accepted without debate (Littoz-Monnet, 2017). The OECD had success with PISA and with PCSD, because they provide countries with indicators and a framework to tackle a policy issue which is important and/or has technical difficulties. Besides the indicator and framework, the OECD also takes on the role as mediator for international cooperation between the countries that adopted the framework and sets up a platform where they can keep in touch. This allows the OECD to always be involved and have as much influence on the policy and the policy discourse as possible.

From these different theories of how experts can influence policy, I can derive certain theoretical expectations on what the answer to my research question will be. The first two expectations are competing which means that they are contradictory and cannot both be true. They describe two different outcomes to this research. The first expectation is that the OECD has a (big) influence on the national environmental policies, because environmental policy is a complex and technical issue and the OECD can be seen as an epistemic community with good and deep understanding of the issue. Moreover, the OECD is a well-known institution in the global arena and their recommendations are often accepted without any debate which is the case in this policy framework as well. The member states implemented it in their national policies. The second expectation is that the OECD Green Growth Strategy has limited to no influence on national policy, because the issue is environmental policy and that is difficult to influence for multiple reasons. Environmental policy often does not have economics priorities, scientific expertise is not always sufficient to push policy in a direction and it is a highly politicized policy area in which politicians only use the knowledge that will benefit them. The last expectation I have is about comparing the countries in this study. The expectation is that the countries who are more affected by climate change have implemented more policy instruments than the countries who are less affected. Since countries who are more affected are more open to international cooperation and international environmental policy which makes it

Pien Wissink

more likely that they have adopted they Green Growth Strategy of the OECD in an attempt to make the consequences of climate change as small as possible in their country.

3. Research design

3.1 Case selection

For this thesis, I choose to focus on the OECD as expert organization. In the temporary global arena, there are a lot of international and non-governmental organizations, like IMF and Greenpeace, that publish all kinds of reports, for example advisory policy or informative research reports. Focusing on an international organization is important for this thesis because of the comparative part of the research. Since I want to compare the expert influence in countries, I needed an organization that is active in many countries. On top of that, the OECD is an organization for economic co-operation and development which is an area of expertise I find interesting and an area that is very important today. With globalization and a fast-growing world, the emphasis often is on economic policy and developments. Moreover, the OECD is well-known for their influence in their member states (Littoz-Monnet, 2017). Their reports and advice are often accepted without any debate which made it interesting if that was also the case when it comes to environmental policy. With environmental policy everything works a little bit differently which is the reason why I choose that policy area for this thesis. Climate change is one of the biggest challenges for decades now and striking for environmental policy is that it is so hard to change and to actually do something. That made me curious to see whether a big international organization like the OECD can make a difference with their advisory reports.

The OECD has 38 member states all over the world, but they are not all included in this thesis. The main reason for this is that with a comparable case study, it is important that the countries are in most ways similar and thus can be compared. Otherwise, with too big differences between the countries other factor are becoming too likely to explain different outcomes or if the outcomes are similar then they might not be valid. So, the countries that are included in this research are the European member states of the OECD which are: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom. These 26 countries have in common that they are on the European continent and most of them have similar political system and values, but of course there are differences between them. The data that is used in this thesis are the Environmental Country Reviews of the OECD in the years 2021 or 2022 depending on the country. These reviews have been done for 30 years now and helped the member states towards reaching their environmental and sustainable development

objectives (OECD, z.d.). The Green Growth Strategy is a policy framework for sustainable economic growth which fits perfectly in this Environmental Performance Reviews (EPR).

3.2 Research Design

The research design for this thesis is a combination of quantitative and qualitative methods. By combining multiple methods, it allows me to get a more complete picture of the influence of the OECD. There are three different methods that are used to collect the results which are necessary to examine the research question properly. The first part determines the relationship between the Green Growth Strategy and the Environmental Performance Reviews. Is Green Growth a part of the EPRs and in what way? How is the concept Green Growth used and are there citations to the original document? A combination of a qualitative discourse analysis and a quantitative citation analysis should find the answers to these questions. In the second part the extent of the influence is established. The content of the strategy is compared to the content of the EPRs which means that the Green Growth policy framework is translated into indicators and the analysis points out if those indicators are used in the national environmental policy of the member states. The method used to determine the extent of the influence of the OECD is the preference attainment approach. The third part is comparative where the results of the second part are analyzed in a comparative way. The main focus of this thesis is to examine the extent of the influence of the OECD; however, this part adds an extra dimension to it since it could find a correlation between the vulnerability to climate change of a country and the number of policy instruments adopted.

The method of the first part is a combination of a qualitative discourse analysis and a quantitative citation analysis. The reason why these two methods are combined is because doing only a citation analysis will not provide the answers that answers the research question. Citation analysis is a research method that can establish a relationship between two documents, because when document A is cited or referenced in document B it means that the writers of document B used something from document A as their inspiration or source. In other words, document A influenced document B and that is exactly what this study is trying to prove and on top of that also the extent of that influence. In this study, the number of citations might not say the most about the extent of the influence since both of the documents, the OECD Green Growth Strategy and the OECD Economics Performance Reviews, are written and published by the OECD themselves. So, OECD might not reference to themselves as much as documents from other organizations would or the Green Growth Strategy could be incorporated in other OECD

documents which are referenced. In short, it does not give a clear and complete view when only citations to the Green Growth strategy are considered to establish a relationship. A discourse analysis looks more in depth into ideas and concepts; it "explores the ways in which discourses give legitimacy and meaning to social practices and institutions" (Halperin & Heath, 2017, p. 335). The concept in this thesis is Green Growth and the EPRs are careful read on how they make use of that concept. In the analysis I will provide an interpretation of the concept based on the textual evidence. What value and meaning do they give it? Do they use it as a well-known concept or is it explained? Is it used in the context of a helpful framework?

The method for the second part of the research is the preference attainment approach. This approach is usually used in researching the influence of interest groups or as part of process tracing, but in this thesis, it is used in combination with discourse and citation analysis. This approach involves "determining the policy positions of expert actors on a given policy dimension and comparing these positions with the final policy output" (Christensen, 2022, p. 8-9). The documents that are commonly used for this approach contain information about the preferences of the experts. In this research that is the Green Growth Strategy of the OECD where they presented a policy framework with policy instrument. These policy instruments should help the member states to achieve sustainable economic growth. Those instruments are in the context of the approach the preferences of the expert. The preferences from these experts are then compared to a document where the final policy outcome is published. The Environmental Performance Reviews serve as the document of the final policy outcome. So, the preferences of the experts, the policy instruments, expressed in the Green Growth Strategy are compared to the actual policy outcome in the Reviews. The number of policy instruments determines the extent of the influence of the OECD.

The results that are used in the third part of the analysis are collected in the second part through the preference attainment approach. The results are used in a comparative way to examine if there is a correlation between the vulnerability to climate change and the number of adopted policy instruments. This correlation could be an explanation to some countries adopted more of the policy instrument and thus why the extent of the influence of the OECD is stronger in the countries that are vulnerable if the correlation is proven.

3.3 Data

The expert document that is used in this thesis is the Green Growth Strategy of the OECD. The Green Growth Strategy is a policy framework designed by the Organization for Economic Co-

operation and Development (OECD). According to the OECD, "Green growth means fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies." (OECD, 2011, p. 9). Green Growth can be used to give attention to the important economics and environmental issues. The OECD drew up five channels through which new sources of growth can be opened up; productivity, innovation, new markets, confidence and stability. Besides these channels for new growth, the strategy can also help to lessen the downside of growth, like resource bottlenecks and imbalances. The reason why the member states need this framework is because climate change becomes more pressing every day and that resulted into twin challenges that on the one hand there are expanding economic opportunities because of globalization and a growing global arena and on the other hand the environmental issues that could work against those opportunities (OECD, 2011, p. 17). In short, this framework helps member states to grow economically while being sustainable and considerate of climate issues.

To test the influence of this expert document, I use the Environmental Performance Reviews of the OECD which "provide independent assessments of countries' progress towards their environmental policy objectives." (OECD, 2022). The reviews, which are written by the OECD in cooperation with the concerned country, are evidence-based and besides reviewing they also promote learning and give recommendation on how to improve even more their environmental performance on the national level, but also together with the other countries since climate change is not an individual problem. The OECD has cycles where they cover all the OECD countries and write the EPRs. Three cycles can be distinguished, but still overlap a little bit; from 1998 till 2004, 2005 till 2013 and 2014 till 2022. Since the OECD Green Growth Strategy was published in 2011, it is not useful to look at the document before that year, but also the years immediately after are not the best years to test the influence since the countries did not have the time to implement the new strategy. Therefore, I use the data of the country reviews that are published most recently. It gives a deeper understanding of the influence because the countries had ten years to implement the policy framework that came with the strategy. On top of that, I use the reviews of the European countries only, because of the comparative element in this thesis. The European countries have a lot of similar elements in the way the countries are governed. Moreover, they are all strongly influenced by the European Union as well, which means that they are all influenced by the OECD and EU instead of only OECD in other member states which would make it harder to see where the influence came from. From the last ten reviews I will first collect the number of citations and references. On top of that I will also analyze the context in which 'Green Growth' is used. Together it will determine whether there is a strong or weak relationship between the Green Growth Strategy and the Environmental Performance Reviews. The second part is qualitative, just like the discourse analysis, and determines the extent of the influence. I collect more in-depth data from the ten most recent Environmental Performance Reviews. That data is collected by looking at how many of the policy framework instruments are used in the countries. That same data is used for the third part of the analysis.

3.4 Operationalization

The research of this thesis consists of three parts and thus three parts need to be operationalized: the discourse analysis of Green Growth, the policy framework and the correlation between vulnerability and adopted policy instruments.

The first part starts with the quantitative citation analysis where the number of citations and references in the Environmental Performance Reviews are counted which provides us with the knowledge whether the OECD cites to themselves. Questions that are answered are: are there a lot of references? Is there a big difference between the countries in number of references? After that the concept 'Green Growth' is analyzed qualitatively by reading carefully how the EPRs use the concept. All of the documents are scanned for the use of the concept and in chapter four the results are discussed. Not every mentioning of Green Growth is discussed, but only when a clear interpretation can be deducted.

Second, by looking at the policy framework with the corresponding policy instruments and translate them into indicators. This allows to see how much of the policy framework has been implemented by the member states and what the results are. From every policy instrument one indicator is derived, except from the last one since that is voluntary and thus hard to check. Instead, the first instrument has two indicators which results in a total of ten indicators. The indicators are chosen because of what the theory describes as most likely to be implemented and as result of the policy instruments that are most common, for example the indicator about support solar panels. Solar panels are frequently seen in today's society, at least in the Netherlands. The theory suggests that GHG emission reductions and air pollution regulations are most picked up by governments and thus useful to use as indicators.

Policy	instrument	Indicator
1.	Cap-and-trade permit systems	GHG emission reductions
		Air pollution regulations (SO ₂ , NO ₂ , VOC)
2.	Baseline-and-credit permit systems	Biodiversity offsets/banking (e.g. REDD)
3.	Taxes or changes on pollution or	Taxes on water pollution
	resource use	
4.	Taxes or charges on a proxy (input	Fuel and coal taxes
	or output)	
5.	Subsidies	Subsidies for purchasing environmental-
		friendly energy equipment
6.	Deposit-refund systems	Deposit on beverage and chemical
		containers
7.	Performance standards	Maximum on CO ₂ emissions on motor
		vehicles
8.	Technology standards	Building houses with energy-saving
9.	Active technology support policies	Support for electricity generated by
		renewable sources (example solar panels)

Table 1 Indicators

On the basis of these indicators, I will see if the policy instrument is used by the member states. This is done by searching for the indicator in the EPRs, for example I will scan the text for the first indicator 'GHG emission reduction' and analyze the text and determine whether a country has a system that reduces GHG emissions. The relevant pieces of texts that are used in chapter four are the ones that contain evidence that the country adopted the policy instrument. The page numbers of the relevant pieces of text are put in a table, which is added to the appendix, and relevant pieces of text are copied and put under the table with the corresponding page number. That data can be analyzed to determine the extent of influence the OECD has on environmental policy. The more instruments that are used, the more influence the OECD has in that country. So, the extent of influence is measured on a scale of one to ten, since there are ten indicators. On this scale, one is no influence and ten is a very strong influence.

While the main focus of this thesis is to determine whether the Green Growth Strategy of the OECD has influence on national environmental policy or not, it is interesting to learn, as well, if there is a difference between European countries in the extent of the influence. Sprinz and Vaghtoranta (1994) distinguished four types of stances that countries can have towards climate action. In this thesis I will only make the distinction between low and high vulnerability

which means that countries with high vulnerability have been influenced more by the OECD than countries with low ecological vulnerability. Countries with high vulnerability are more open to international help and coordination and thus it is also more likely that they implement as many environmental policy instruments as possible to fight climate change. What I examine here is a possible correlation between vulnerability and number of adopted policy instruments. To distinguish the countries that are more at risk than others. I use the website "Greenmatch". It is an initiative from the United Kingdom and it helps people to make the UK a little greener (Greenmatch, 2022). They made a detailed map of which European countries already have been affected the most by climate change. The higher the score, the more the country has been affected and, according to the theory, the more measures they implemented. Thus, that there is a correlation. Among the countries that are included in this thesis are both the countries who are affected the most, Lithuania, Finland and Latvia, and the countries who are affected the least, Greece and Norway.

Scale of 0 to 100	Country
37,2	Greece
41,9	Norway
49,4	United Kingdom
52	Ireland
60,4	Luxembourg
63,4	Belgium
64,4	Denmark
72,8	Latvia
73	Finland
75	Lithuania

Table 2 Vulnerability

3.5 Validity and reliability

Validity and reliability are two important conditions when it comes to doing research and both have to be satisfactory. If data is valid but not reliable than the research results are misleading and not acceptable, that goes for the other way around as well, reliable but not valid.

Validity is about whether the indicators are suitable for the concept you are measuring and validity can be determined in two different ways. The concept that is measured in this thesis is 'expert influence'. In order to do so, I had to make that concept narrower and thus it is

represented in the influence of the OECD. That is a good fit since the OECD is considered an expert organization. How this concept is measured is through discourse analysis and the preference attainment approach. Since the discourse analysis does not really measure the extent of the influence but establishes more of a relationship between the documents used in this thesis, this section focuses on the preference attainment approach. With this approach the influence is measured by translating the policy instruments, which are the preferences of the expert (the OECD), into indicators. Intuitively that seems like a good way to measure the concept since we are measuring if the preferences of the OECD are accepted and implemented by other countries.

Do these indicators, however, cover all the different aspects that come with measuring the influence of the OECD? In general, this thesis examines the influence that the OECD has on a country, however inside a country there is a lot to influence. Experts can influence policy-making and political processes. This goes for all policy subjects. This research measures a lot of those aspects, because when a country adopts a policy instrument it is a sign of influence on policy-making, but also on political processes since they determine what is important and what not. However, this research only focuses on environmental processes and therefore the results cannot be generalized for other policy subjects. The reason why other policy subjects are not included for this thesis is the scope of the thesis. Including different policy areas while keeping the operationalization as it is, would mean a very extensive study which would take up much more time than that is given.

Besides validity, reliability is important to doing good research and it means that the indicators should not only be suitable but also measured accurately. Often this is tested by the ability to get consistent results on repeated occasions (Halperin & Heath, 2017). In this case, the research is not repeated by other researchers so the reliability cannot be tested. However, the operationalization is clearly stated and the indicators for the policy instruments can be derived from text without ambiguity. The discourse analysis is a bit harder because people can interpret texts in different ways, but I do think that with the theory chapter in mind the discourse analysis would have the same results if it was repeated by others. Last, the comparative part where correlation between vulnerability and the influence of the OECD is examined can be repeated as well. Since the vulnerable countries are derived from a map and the number of adopted policies are established through the indicators. That only leaves the interpretation which could differ per person but I do think that every researcher would consider no adopted policies in a highly vulnerable country and a lot of adopted instruments in a low vulnerable country as no correlation.

Pien Wissink

To conclude, the validity and reliability of this research is satisfactory. Of course, if all aspects are included in a research, it would be better, but that is most of the time not possible. The indicators that measure the concept of expert influence covers most of the aspects that come with it.

4. Analysis

This research is investigating the question to what extent the OECD has influence on national environmental policy. The results and the analysis are discussed in three parts. The first part is about the number of citation and the relationship between the Green Growth Strategy and the Environmental Performance Review. In the second part, the policy instruments are reviewed and what it means for the extent of influence from the OECD. In the last part the countries are compared to see if the last theoretical expectation is true which means it is about the differences between the more and less affected by climate change countries.

4.1 Discourse analysis

Citation analysis

Before looking into how the concept Green Growth is framed in the EPRs, I looked at the number of citations and references to original Green Growth strategy publication which was somewhat surprising. Since both of the used documents used in this study are from the OECD, I did expect less references, however almost none where found. There were zero citations or references in the eight most recent EPRs. In the EPRs of Denmark and Latvia there were references to the OECD Green Growth study, however not to the original document but both of them referenced the Green Growth Indicators from 2017.

The lack of references to the original Green Growth document could be explained by many reasons, but two of them are discussed here. The first reason is that the Green Growth Strategy had been published too long ago which means that it has been included in other OECD documents which are referenced in the EPRs. To back up that argument older Performance Reviews are studied, because those should entail more references to the Green Growth Strategy. Not in all but in most of the EPRs between 2012 and 2016 do have a reference to the Green Growth publication of 2011, for example the EPR of Slovenia and Germany in 2012, the EPR of Italy in 2013 and the EPR of France in 2016. A second reason, which is complementary to the first, is that the term 'Green Growth' has become a concept which other documents use without referencing where it came from. The reason why Green Growth seems to have become a concept and the reason why the origin of that concept is the Green Growth Strategy is because the term has been used in every Performance Review since 2012 and not before. Before the publication of 'Towards Green Growth' there were chapters on sustainable growth, but they were called just that (OECD Ireland, 2010). Whether Green Growth is only a concept that is known internally at the OECD is unknown and further research should point that out. In order

Pien Wissink

to establish that national documents, that are not written in cooperation with the OECD like white papers, could be studied.

Discourse analysis

Despite the fact that there are almost no references to the Green Growth document, there definitely is some sort of relationship between that document and the EPRs. The reason why that can be assumed is because at the end of every Performance Review there is a short end note about the review and what it is focused on. Here a couple of sentences from different end notes of the countries.

"Norway has made progress on the path towards green growth over the past decade. The country is a frontrunner in many environmental areas and invests heavily in technological development and innovation to support its green transition." (OECD Norway, 2022, p. 152)

"This is the third Environmental Performance Review of the United Kingdom. It evaluates progress towards green growth, with a special chapter focusing on waste, materials management and the circular economy." (OECD United Kingdom, 2022, p. 117)

"This is the third Environmental Performance Review of Luxembourg. It evaluates progress towards green growth and sustainable development, with special chapters focusing on two major issues: air quality and mobility, and biodiversity." (OECD Luxembourg, 2020, p. 162)

"This is the first OECD Environmental Performance Review of Lithuania. It evaluates progress towards green growth and sustainable development, with a special chapter focusing on sustainable mobility." (OECD Lithuania, 2021, p. 132)

These are just examples of four countries, but in all of them is the exact or a variation of the sentence "evaluates progress towards green growth" which is a clear reference to the title of the publication of the Green Growth Strategy which was called "Towards Green Growth" (OECD, 2011). Even though there is no direct reference, Green Growth does have a meaning in the EPRs and analyzing that referencing helps with understanding the relationship between the Green Growth Strategy and the EPRs. So, what is the discourse on the concept 'Green Growth' in the Performance Reviews?

In (almost) every Performance Review Green Growth is used in the same places with the same context and thus three main ways of how Green Growth is used can be distinguished. The concept is used as goal, as synonym for sustainable development, and as framework/strategy.

First of all, Green Growth is used as goal because of the title 'Towards Green Growth', which is the title of a chapter in all of the EPRs except of the Review from Norway. The word towards indicates that you are working toward a certain goal, in this case Green Growth. Another indicator that the concept Green Growth is used with the meaning of goal is that often it is written about as something that needs to be promoted, for example "Promoting investment and economic instruments for green growth." (OECD United Kingdom, 2022, p. 55), but also "Investing in the environment and low-carbon infrastructure to promote green growth" (OECD Belgium, 2020, p. 113). The first quote can be interpreted in the way that other things need to be promoted in order to achieve Green Growth and the quote from the performance review of Belgium states almost the same because in other words it states that investment is needed for promotion of Green Growth. Both of the examples come down to the fact that Green Growth is the end goal that needs means and investment to be achieved. The last key word which implies that Green Growth is a goal is 'progress', for example "Norway has made progress on the path towards green growth over the past decade." (OECD Norway, 2022, p. 9). 'Progress' in combination with 'towards' really shows that it is an ongoing process with at the end the ultimate goal of Green Growth.

Even though, Green Growth is by far most used as a goal since it is most often combined with key words like towards, progress and promote, Green Growth is used in different contexts as well. Green Growth is sometimes used as a synonym for sustainable development which is most visible in the EPR of Norway. That Review is the only one without a chapter that is called 'Towards Green Growth'. Instead, that chapter is called sustainable development but the title is really the only that is different since the description of the chapter is the same as the Green Growth chapter in the other EPRs. All of those chapters are about progress towards climate change targets, environmental effectiveness while using fiscal and economics instruments (OECD Norway, 2022, p. 9) (OECD United Kingdom, 2022, p. 37). You might wonder whether Green Growth is not always used as synonym and that the goal actually is sustainable development. That is not the case because often both concepts are mentioned, for example in the EPR of Ireland "This chapter reviews Ireland's progress in mainstreaming environmental considerations into economic policy and in promoting sustainable development and green growth." (OECD Ireland, 2021, p. 98). So, in the EPRs there is a distinction made between

sustainable development and Green Growth and it is more seen as Green Growth is a kind of sustainable development.

Lastly, Green Growth is also used in the context of it being a strategy and/or framework, the framework that is used in this thesis. In the EPR of Lithuania there is a paragraph about the Green Growth policy framework, "Sustainable development and green growth policy framework." (OECD Lithuania, 2021, p. 80), but in the EPR of Belgium is Green Growth Strategy used, "The federal and regional governments do not have a green growth strategy, but have taken steps to promote a green and inclusive economy through the 2018 National Pact for Strategic Investment and the NECP." (OECD Belgium, 2021, p. 99) and in the EPR of Luxembourg as well, "Luxembourg does not have a green growth strategy, but authorities have made considerable efforts to diversify the economy towards a greener and more inclusive growth model over the past years." (OECD Luxembourg, 2020, p. 90). When reading the context, it shows that just because in Belgium and Luxembourg it states that they do not have a Green Growth Strategy it does not mean that they do not take steps to promote a green and inclusive economy. This statement seems a bit contradicting but it means that they do not have a specific plan that would fit under a green growth strategy but they are trying. On top of that, I think that just because they do not have a Green Growth Strategy that does not mean that they cannot use policy instruments of the policy framework that comes with Green Growth.

Conclusion

This first part of the empirical results and analysis was meant to establish a relationship between the Environmental Performance Reviews and the Green Growth Strategy through quantitative citation analysis and qualitative discourse analysis. However, surprisingly only two of the ten EPRs contained a reference to the 2011 Green Growth publication or to any other like the 2015 or 2017 ones. Despite the fact that almost no references were found, a clear link to the strategy was discovered through the discourse analysis. Firstly, because of the end note of every EPR which contained a description that the Review is an evaluation of the progress towards Green Growth. That description indicates that there is some sort of influence of the OECD in the countries. On top of that, the analysis pointed out that the concept Green Growth is used with three different meanings that depend on the context. It is used as a framework and strategy which is the way as it was intended and as it is used in this thesis. Green Growth, however, has grown as a concept that can be used as a synonym for sustainable development. Most of all it is seen as a goal which needs investment and promotion and a goal towards the progress is evaluated through these Performance Reviews.

To conclude, Green Growth has become more than just the strategy and framework that was provided in the original publication in 2011. The discourse analysis provided evidence for the assumption that there is a connection between the EPRs and Green Growth and thus that there is a very likely possibility that the OECD influenced the member states with the Green Growth Strategy. The extent of that influence is examined and analyzed in the next part of this chapter.

4.2 The policy instruments

In 2011 the OECD published the Green Growth Strategy which presented a policy framework with policy instruments that would help countries to achieve sustainable economic growth. The policy framework consisted of ten instruments from which nine are included in this thesis. Each of the instruments are translated into one measurable indicator, except for the first instruments which has two indicators. The result of the research is discussed per instrument. There are big differences between the number of countries that implemented the instruments. Some instruments are more popular than others, with only one instrument that is adopted by all countries which is the 'Active technology support policies' instrument which is measured by the 'Support for electricity generated by renewable sources (example solar panels)' indicator. More on this instrument is discussed later in this paragraph.

Cap-and-trade permit systems

The first policy instrument is 'Cap-and-trade permit systems' which is translated into two indicators: Greenhouse Gasses (GHG) emission reductions and air pollution regulations (SO_x , NO_x , VOC). This policy instrument is one of the most popular ones which is seen in both of the indicators. The GHG emission reductions and the air pollution regulations both have been implemented in eight out of ten countries.

The GHG emission reduction is a well-known measure against climate change and is often talked about in the news. The link between GHG emission and climate change has been made many times and GHG emissions are relatively easy to reduce. In most of the EPR you read about how there are strong reductions in GHG emissions and about the plan for the future to reduce the emission even more. For example, in the United Kingdom, they have reduced their emissions between 1990 and 2019 by 44 percent because of their shift in electricity generation from coal to gas and renewable energy (OECD United Kingdom, 2022, p. 13). Not everywhere it is easy to determine the reduction of GHG emission.

Policy instrument/indicator	United Kingdom	Norway	Finland	Lithuania	Ireland	Belgium	Luxembou rg	Greece	Denmark	Latvia	Total Yes
GHG emission reduction	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	∞
Air pollution regulations	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	∞
Biodiversity offsets	No	No	No	No	Yes	Yes	Yes	No	No	No	3
Taxes on water pollution	No	No	No	Yes	No	Yes	Yes	No	No	Yes	4
Fuel and coal taxes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	7
Subsidies for environmental- friendly energy	N _o	Z o	Yes	Z o	Yes	Yes	Yes	Z o	Yes	Z'o	υı
Deposit-system on beverage containers	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	7
Maximum on CO ₂ emission vehicles	No	N _o	No	Yes	N _o	No	No	N _o	N _o	No	1
Building houses with energy saving	Иo	Yes	Yes	Yes	Yes	No	Yes	N _o	Yes	Yes	7
Support for renewable sources	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	10
Total Yes	4	4	7	5	6	8	7	3	7	4	

Table 3 Policy instruments implemented

In Norway the GHG emission are reducing because of the 'zero growth goal' and they have promising goals to reduce the emissions with 50 percent by 2030. However, Norway is one of the largest energy producers and exporters which makes them, indirectly, responsible for GHG emissions (OECD Norway, 2022, p. 14-15). Climate change is not something that can be fixed on the national level which makes it important that Norway will stop exporting energy as well. There are also countries who have not been reducing GHG emissions at all, namely Lithuania and Ireland. In Lithuania, the GHG emissions have not been decreasing, but also not increasing. The overall emissions have been flat since 2009, but in transport they have increased with 50 percent since 2005 (OECD Lithuania, 2021, p. 11). In some areas, like energy, they are making progress, but in others, like transport, the emissions have not improved. In Ireland, the GHG emissions are not reduced as well and one of the reasons for that is transport as well. The other main reason, however, is the big agriculture industry which causes a third of the emissions and a lot of that is biogenic methane from livestock (OECD Ireland, 2021, p. 19). Ireland does have a plan to reduce the GHG emissions and want the emissions to be down by 30 percent in 2030.

Air pollution regulations is the second indicator for the 'cap-and-trade permit systems' instrument. Eight countries have some sort of air pollution regulations but most of them still face challenges with air quality in their countries. Luxembourg is one of those countries who is trying to battle air pollution but the progress remains insufficient (OECD Luxembourg, 2020, p. 33). Luxembourg is making progress on cutting down air pollution, but it is not enough to meet the targets. The country has multiple air quality plans and the focus points of those plans are, for example, regulating the volume of individual motorized traffic (OECD Luxembourg, 2020, p. 45). The country where the air quality is one of the best of the OECD is Finland. The air pollution is below the international guideline and the exposure in Finland is 60 percent less than what is average in the OECD member states (OECD Finland, 2020, p. 18). Finland has the National Air Pollution Control Programme (NAPCP) to make sure to achieve their goals by 2030. Lithuania is, again, one of the two countries that did not implement regulations regarding air pollution. The emissions of most air pollutants are coming down, but there is not clear plan since the publication of the Green Growth Strategy (OECD Lithuania, 2021, p. 25). In 2019 the National Air Pollution Reduction Plan was adopted but the EPR of Lithuania was published too soon after so it is hard to say if that plan had any impact (OECD Lithuania, 2021, p. 25). Greece is also not regulating their air pollution even though they did make the 2013 Clean Air Programme (OECD Greece, 2020, p. 54). However, the fuel consumption started to grow again in that same year which counteracted the program. In 2017 an exceedance of multiple air pollutants was recorded which implies that ever since the 2013 plan no new regulations where set in place.

Baseline-and-credit permit systems

The 'baseline-and-credit permit system' instrument is a lot less popular compared to the first policy instrument of the framework. This instrument is translated into the 'biodiversity offsets/banking' indicator. This instrument has only been implemented by three countries; Ireland, Belgium and Luxembourg. An explanation for why this has been implemented in so few countries could be because biodiversity is 'invisible'. With that is meant that it is less easy to measure than GHG emissions and air pollution. There is less attention to biodiversity in the media. When the media writes about climate action they speak of emissions and air quality, but almost never about what climate change does to biodiversity. Most of all compensating and fixing the biodiversity costs more effort and potentially money. Economic capacity is more important here and environmental policy does not always have priority when it comes to economic policy (Sprinz & Vaghtoranta, 1994). Ireland has funding for the conservation of biodiversity which runs through agri-environmental payments (OECD Ireland, 2021, p. 14). The country has the Strategic Plan for Biodiversity 20111-20, the third National Biodiversity Action Plan 2017-21 and the Green, Low Carbon, Agri-Environment Scheme (GLAS). Although Ireland has funding and multiple strategies, the declining conditions of habitats does make investigators wonder if the fundings are well spend (OECD Ireland, 2021, p. 24). In Belgium, there are big differences between Flanders and Wallonia when it comes to biodiversity. Belgium has a biodiversity management contract and Wallonia's goal is to put 20 percent of the agricultural area in the contract which is a big contrast with the 2 percent of Flanders' goal (OECD Belgium, 2020, p. 33). Aside from this difference, Belgium nailed down the offsetting principle in legislation with the Nature Conservation Act (OECD Belgium, 2020, p. 146). Luxembourg did the same in a 2018 law where they give ecopoints for offsetting biodiversity degradation (OECD Luxembourg, 2020, p. 100). Besides these countries who have a clear policy on biodiversity offsets, there is a distinction to be made between countries which do nothing and countries which do have plans and strategies but not a financial compensation. The United Kingdom does have a plan called the National Biodiversity Strategy to protect areas but a financial compensation is not a part of it (OECD United Kingdom, 2022, p. 15). Same goes for Denmark, it is working on improving nature conservation, but there is no offset (OECD Denmark, 2019, p. 31). Norway, Lithuania, Greece and Latvia have no plan regarding biodiversity, but the EPR does state the following: "Mandatory biodiversity offset programmes

are likely to be a much more powerful instrument than voluntary ones" (OECD Norway, 2022, p. 131).

Taxes or changes on pollution or resource use

A common instrument when trying to restrict something is taxes which is the third instrument; taxes or changes on pollution or resource use. This translated into the indicator 'taxes on water pollution'. Although this may seem like an instrument that would be implemented easily most of the countries did not do that. Surprisingly Lithuania is now one of the four countries that did implement it. Besides putting a tax on water pollutants, Lithuania also taxes air pollutants and they recently increased the tax (OECD Lithuania, 2021, p. 29). In the other Baltic state, Latvia, there are also taxes on water pollutants, however there are downsides to these taxes. First of all, the tax is not high enough to cover the costs of the pollution and they also do not prevent pollution. So, the taxes are more for revenue (OECD Lithuania, 2021, p. 83). The other two countries who adopted water pollution taxes are Belgium and Luxembourg, neighboring countries as well. In Luxembourg they have not used the full potential of its tax system to achieve a better environment, but they did implement a tax on water abstractions and polluting discharges (OECD Luxembourg, 2020, p. 27). However, Luxembourg still has a lot to improve regarding their environmental taxes which the same for Belgium. Even though they do have a tax on water pollution, it is only in Flanders and not Wallonia. Wallonia has their own environmental taxes and some are shared on the federal level (OECD Belgium, 2021, p. 44). In most of EPRs of the other countries taxes on water pollution are not mentioned or is clearly stated that there is no tax on water pollution. In Finland, for example, environmental taxes only make up 1 percent of the revenue and there is no tax on water abstraction, water pollution, air emissions or fertilizers (OECD Finland, 2021, p. 112).

Taxes or charges on a proxy

The fourth policy instrument is a tax form as well, but this instrument is about taxes or charges on a proxy (input or output) which is translated into 'fuel and coal taxes' as indicator. Even though this is just a different kind of taxes, it has been adopted by a lot more countries; seven out of ten countries have some sort of fuel and coal tax. One of those countries is Norway who has adopted relatively few policy instruments; only four in total. Norway put a tax on all kinds of fuel, diesel, bioethanol, biodiesel etcetera (OECD Norway, 2021, p. 75). In 2020 Norway reformed their tax system making it more consistent and more environmentally friendly by putting prices on externalities. Greece implemented in total even less, only three, policy

Pien Wissink

instruments than Norway, but has a tax on fuel as well. Moreover, Greece is amongst the countries with the highest prices and taxes on petrol of the OECD member states (OECD Greece, 2020, p. 23). Although a lot of countries has some sort of taxes on fuel and coal, this gives a bit of a distorted view on the matter. This is because a lot of countries, Norway and Greece as well, have subsidies on fuel, also called harmful subsidies. The recommendation of the OECD in the EPRs also is to completely phase out those subsidies. As long as the harmful subsidies exists the fuel tax is only a drop in the ocean. Of course, having a tax on fuel and coal is better than no tax at all, like the United Kingdom, Lithuania and Latvia. In the United Kingdom the fuel taxes have been relatively high but where frozen in 2011 which took away the incentive for the public to shift to public and active transport (OECD United Kingdom, 2022, p. 10). Even though officially the United Kingdom does not have fossil fuel subsidies, the OECD Inventory reported large tax reliefs in favor of fuel consumption (OECD United Kingdom, 2022, p. 21). So, in order to ban out fossil fuel completely there is still a long way to go, starting with abandoning the fossil fuel subsidies that are shockingly still present in almost all of the OECD countries.

Subsidies

Besides the harmful fossil fuel subsidies, subsidies can be used in a positive way for the environment and that is what the fifth policy instrument entails. The indicator that is used to measure this instrument is 'subsidies for purchasing environmental-friendly energy equipment'. In almost all of the EPRs environmental-friendly energy is a priority, but subsidies to support that and to purchase equipment to do so is not always present. In half of the investigated countries subsidies where available. In most of the EPRs of countries where subsidies are not offered, they are not even mentioned. In Lithuania it is strongly recommended to start with environmentally related taxes and subsidies (OECD Lithuania, 2021, p. 30). In Denmark they provide subsidies for wind energy investment, Luxembourg offers subsidies for energy efficiency renovations and in Belgium as well as in Ireland they offer subsidies for renewables. Finland launched a project where companies, communities and public organizations too, instead of buildings, could get subsidies for small-scale PV installations (OECD Finland, 2021, p. 151).

Deposit-refund systems

One of the most popular policy instruments is the deposit-refund systems. The corresponding indicator is something that millions of people all over the world daily use which is the 'deposit on beverage and chemical containers. In The Netherlands, where I come from, every household

as a bag or crate with plastic bottles which you take to the grocery store where you hand them in in exchange of a small refund. So, this is a concept that has integrated very visibly the daily lives of people and recently the system has been made more comprehensive. In the ten countries that are involved in this research seven of them implemented this policy instrument. Only in the EPR of Ireland and Greece the deposit-refund system was not mentioned. Although the system is broadly adapted it might not do the most for environmental improvement. In Norway varies waste taxes are present and the bottle deposit system is successful, however bottles on are less than 10 percent of the plastic waste in Norway (OECD Norway, 2022, p. 79). Of course, every bit helps when it comes to the environment. In Finland the deposit-refund system had been around for a couple of decades for beverage packaging but not for the containers, however there is a tax on the containers and the combination of both systems has helped with the recycling and reuse of the packaging materials (OECD Finland, 2022, p. 113). Belgium does not officially keep track of the results of the deposit-refund system, but the reports are that the recycling of glass packaging is the same volume as that is sold in the stores and other places (OECD Belgium, 2021, p. 186). Overall, this policy instrument has been adopted well by the member states and is known by most people, however with this instrument you can wonder if it is really the OECD that influenced the countries here, for example in Finland since the deposit-refund system has been around there for decades, except not on the beverage containers, so long before the publication of the OECD Green Growth Strategy in 2011.

Performance standards

Many of the policy instruments have been adopted by multiple countries which shows the success of the policy framework of the Green Growth Strategy. The 'performance standards' instrument, however, is not a very successful instrument. The instrument is measured by the 'maximum on CO₂ emissions on motor vehicles' indicator. Out of all the countries in this study only Lithuania adopted this instrument, which is surprising since Lithuania is not a frontrunner on adopting the instrument in their national policies. In Lithuania people can receive a grant which they can use on a motor vehicle that is better for the environment which comes down to an electric or other non-diesel car that is not older than 2013 and has a maximum CO₂ emission of 130 g/km (OECD Lithuania, 2021, p. 91). Most of the other countries are promoting electric vehicles, but in their EPRs is nothing to be found on a maximum CO₂ emission measure. The United Kingdom, for example, does have a tax that vehicles with high emissions need to pay and they are trying to reduce the average CO₂ emissions per km of new vehicles sales (OECD United Kingdom, 2022, p. 35). However, the emissions are only rising because there are more

Pien Wissink

larger vehicles sold. Also, reforms in taxes are causing to weaken other important links which results in less incentive to choose low-polluting second-hand vehicles. The OECD states are trying to limit the CO₂ emissions but have not done so by setting up a maximum on motor vehicles.

Technology standards

Coming from the unpopular performance standards instrument, the technology standards instrument is a lot more successful and one of the best implemented instruments of the policy framework. The indicator for this instrument is building houses with energy-saving which is a very relevant indicator at the time of writing. The energy crisis with the incredibly high gas prices is creating a focus on how to save a as much as energy possible, especially with heating the houses in the winter. There is a lot of media attention for the isolation of houses and old monumental houses that are really taking a lot of energy which is, right now, bad for the wallet, but of course bad for the environment as well. The instrument has been adopted by seven of the ten investigated countries, only the United Kingdom, Belgium and Greece do not have plans or strategies on building houses with energy-saving. The United Kingdom did have an energy saving investment scheme, but it was quickly cancelled which resulted in very few sustainable homes (OECD United Kingdom, 2022, p. 19). Luxembourg and Latvia do have plans for energy-saving buildings but the execution is not optimal yet. In Luxembourg is the interest in these energy-saving projects very low since they cost a lot of money and at the time of the publication of the EPR the energy prices were too low to make it viable (OECD Luxembourg, 2020, p. 30). However, in 2017 Luxembourg did initiate new programs to build energy-efficient houses. Latvia used EU and national funds in order to create energy efficient buildings but needs to step up their game. Their heat consumption per square meter is one of the highest in Europe, higher than then other Northern countries (OECD Latvia, 2019, p. 39). In Norway the energy efficiency is great and they have high standards for new buildings (OECD Norway, 2022, p. 88). Finland is doing great as well and they have ambitious goals for 2050 which is to increase nearly-zero energy buildings from 10 percent to above 80 percent for all kinds of houses (OECD Finland, 2021, p. 155). Another great example comes from Ireland who is not a frontrunner on all environmental instruments, however only 4 percent of the new buildings built between 2015 and 2020 use oil for heating which is a big difference with the 25 percent of the building built between 2010 and 2015 (OECD Ireland, 2021, p. 62).

Active technology support policies

The best policy instrument was saved for last; the active technology support policies instrument. This policy instrument is adopted by all ten countries and is measured by the indicator 'support for electricity generated by renewable sources (example solar panels)'. It was quite predictable that this would be the instrument that would do best since the international arena has been focused on new, renewable energy sources with the wind farms on the North Sea (NOS, 2022). Finland is one of the best countries regarding renewable energy sources, it supplies 37 percent of their energy and on top of that is their fossil fuel energy declining while the renewable energy sources is expected to only increase (OECD Finland, 2021, p. 17). Lithuania's renewable sources are solar energy and biofuels and is supporting that through price premiums and priority access (OECD Lithuania, 2021, p. 26). In Ireland the main sources in wind power and the renewable energy have more than doubled in the energy mix since 2010 and moreover Ireland developed in 2020 a new system to help attract more investment in the sector (OECD Ireland, 2021, p. 20). These initiatives where just a couple of examples of ways how countries support and promote their renewable energy sources and a whole page could be filled with initiatives from all the ten countries. Save to say that all ten countries are aware that the renewable energy sources are the future for a more environmentally friendly was of living and the key to a more sustainable society while still growing economically.

Discussion

The question that is examined in this part of the analysis is to what extent the OECD influenced the member states. When looking at the results, there are big differences between the number of instruments that different member states adopted but also a considerate difference between which instruments were popular and which ones where not. So, let's start there, is there an explanation in the theory for why some of the instruments were implemented more than others?

A big part of the answer to how experts can influence policy is 'uncertainty' which is a dynamic introduced by Haas (1992). This dynamic is applicable to environmental policy because environmental problems are not on the national level which is why you need cooperation from other countries as well. In situations of uncertainty the help of experts is wanted because they give the actors information while understanding the technical difficulties of the matter. Littoz-Monnet (2017) complements this theory by arguing that expert knowledge is useful in technical difficult cases because the policy-makers can use the expert knowledge to understand it instead of figuring out the ins-and-outs of the case by themselves which would take a long. So, the conclusion of this is that policy-makers only have the knowledge that the

experts are giving them on the policy area. This means that the policy-makers themselves do not completely grasp the technical side of the problem. Translating that to the Green Growth Strategy that the OECD presented to their member states. It provided the states with an understandable policy framework to tackle the environmental problems, however not all the policy instruments where as easy to understand and translate into policy as others which would explain why some of the policy instruments were more often implemented than other. A clear example of this is the seventh policy instrument 'performance standards' which was measured by setting a maximum on CO2 emissions on motor vehicles. In order to set a maximum on emissions you need to know what the maximum is and what maximum would help the environment. You need to know what kind of maximum would be viable in today's society and how much the CO₂ emissions of motor vehicles normally are. There are more technical questions to be asked when it comes to this policy instrument. When the "technical difficulty" instrument is compared to a more easily understood instrument like the deposit-refund systems, it becomes clearer. Such a system is easier to understand for a policy maker who does not have a technical background. Deposit-refund systems have been around for quite some time and are based on a simple principle. You buy something wasteful for which you have to pay a small fee which you will get back if you dispose it in the right way. That instrument needs a lot less technical insights which could be the reason why it has been implemented in seven countries instead of the one country where the performance standards instrument has been implemented. Another example of a more difficult to understand instrument is the biodiversity offsets; the third instrument in the policy framework. In order to successfully implement a financial compensation for degrading biodiversity, research on biodiversity is necessary and the outcome of that research needs to be linked to the height of the compensation. Different expertise needs to come together in order to make this a successful instrument and successfully implemented. Again, the technical difficulties could be the reason why the third policy instrument has only been implemented in three countries while a relatively easy tax on fuel and coal is implemented in seven countries. Even by only putting an excise duty on fuel is making this instrument successful which takes up a lot less effort.

Besides the technical difficulty of certain instrument, there could be another explanation to why some of them are less implemented by the OECD member states. This explanation comes from Rietig (2014) which is that environmental policy is highly political and therefore the politicians will only use the expert knowledge, and in this case the policy instruments, that support their cause and beliefs. For example, a politician of an agricultural party will not quickly implement a policy instrument like the baseline-and-credit permit systems which measure

biodiversity offsets since agriculture and biodiversity do not often go well together. Also, a "green" politician who wants to make name for themselves and wants to stand out in climate action will more likely choose policy instruments that are visible and have a quick result, like deposit-and-refund systems. Maximum on CO₂ emissions on motor vehicles and biodiversity offsets takes up a lot more time and will be less visible and popular.

A third reason why some are more popular than others is because of the economic aspect which has been mentioned before. Environmental policy and economic policy go hand-in-hand which makes up a logic case that policy instruments who are more expensive will be implemented less, because budgets need to be freed. Of course, almost all instruments need money to be implemented but, for example the biodiversity offsets and the maximum on CO₂ emissions on motor vehicles needs a lot of measurements and knowledge in order to be successful. Compared to those complicated instruments which cost a lot of manpower, a tax instrument is a lot more appealing since that actually yields money.

Country	Number of policy	Extent of influence
Country	indicators used in EPR	(Medium to strong)
Greece	3	Medium
Norway	4	Medium
United Kingdom	4	Medium
Latvia	4	Medium
Lithuania	5	Significant
Ireland	6	Significant
Denmark	7	Strong
Luxembourg	7	Strong
Finland	7	Strong
Belgium	8	Strong

Table 4 The extent of influence results

The last reason of why some instruments are more implemented, and this reason is mainly to explain the popularity of the first two indicators, is because of the attention that other experts gave it. For years and many studies later, academics and experts have been pointing to the importance of GHG emissions and air pollution. Greenhouse Gasses and air pollution have been the main cause of the hole in the Ozon layer and research has shown that both of them need to be reduced and regulated in order to do something about climate change. Both of them are technically difficult issues and require economics policy, but the attention and the urgency of

taking action on it is a logical explanation of why eight out of ten countries have adopted these instruments of the framework.

To conclude, there were two contradicting theoretical expectations regarding the answer to the question to what extent the OECD influences national policy. The first expectation is that the OECD has a strong influence in the OECD member states and the second expectation is that the OECD has limited to no influence on the OECD member states. Considering the results of this study, the first expectation is right. Although the influence differs per country the OECD has a medium to strong influence in all of the countries. In four countries the OECD has a medium influence, in two a significant influence and in four of the countries the influence is strong. This conclusion, however, is not final. This research examined the influence of the OECD in countries by using the Green Growth Strategy of the OECD and the research design of a citation analysis in combination with the preference attainment approach. Both of those methods have their limits which are discussed together with the limits of this research in the next chapter.

4.3 Vulnerability correlation

In this last part of the analysis the result of the research is discussed on a comparative level. On top of wanting to understand the extent of the influence of the OECD, this thesis tests a different explanation to why some countries are more open to international cooperation on environmental policy and thus influenced more by expert bodies. According to the theory of Sprinz and

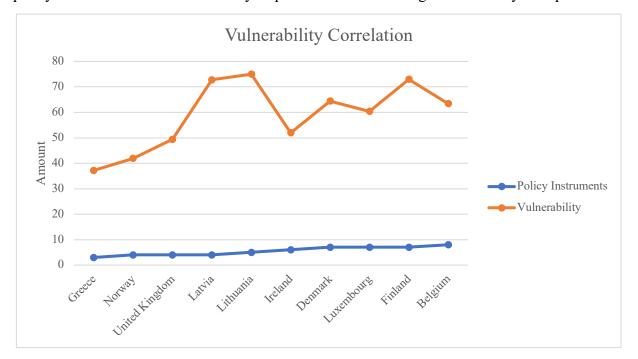


Figure 1 Vulnerability Correlation

Vaghtoranta (1994) the vulnerability of a country to the consequences of climate change is a big factor. Countries with high vulnerability would adapt more of the policy framework than the countries with a low vulnerability. So, a correlation between vulnerability and the number of adopted policy instrument would exists which is referred to as 'vulnerability correlation'.

The results are presented in the graph and a clear correlation cannot be found. There are five countries where the vulnerability line (blue) and the policy instrument line (orange) trend are similar which means that in Greece, Norway, the United Kingdom, Denmark and Finland the number of adopted policy instruments corresponds with their vulnerability to climate change. Beside the five countries that would prove that a correlation exists, there are five countries who are (far) above or below the vulnerability line trend which can be considered outliers. Ireland, Luxembourg and Belgium are the countries who adopted more policy instruments than what corresponds to their vulnerability which results in the orange line going down and the blue line going up. Belgium is the country who adopted the most policy instruments of the framework while it is not the country who is most vulnerable. Belgium adopted eight out of ten indicators which means that only two indicators are not implemented in Belgium. These indicators are 'maximum on CO₂ emission vehicles', which is only adapted by Lithuania, and 'building houses with energy saving', which is surprising since it is a measure that most of the countries did implement. The data of Latvia and Lithuania resulted in two peaks of the orange line which makes them outliers too but as countries who are underachievers, instead of the overachievers like Ireland, Luxembourg and Belgium. Latvia and Lithuania are underachievers because the orange line is peaking while it should be a gradually inclining line like the blue line which means they both implemented less policy instruments than what would be corresponding with their vulnerability. Both countries are at serious risk for negative consequences of climate change according to the map on Greenmatch which would make them more likely to take up international coordination and advice regarding the environment. Of course, there could be numerous other reasons why these countries have implemented less of the Green Growth policy framework. Economic aspects are very important when it comes to environmental policy (Sprinz & Vaghtoranta, 1994). Lithuania and Latvia are not the wealthiest countries amongst the ones included in this research which could be the reason why they did not have the chance yet to implement more of the policy framework simply because they do not have the means to do so. Another reason could be the political situation in Latvia and Lithuania. One of the reasons why environmental policy is hard to influence is because not everybody agrees on what climate change is and what kind of measures needs to be taken (Boswell, 2017).

Pien Wissink

To conclude, the expectation for this part of the research was that "the countries who are more affected by climate change have implemented more policy instruments than the countries who are less affected.". There is not a simple right or wrong answer to this theoretical expectation. There are five countries where the blue and orange line have the same trend which supports the theoretical expectation that there is a correlation between the two factors. However, the outliers, which are five countries as well, are the peaks and drops of the orange line which defeats the expectation and thus leads to the conclusion that there is no correlation. The final conclusion is that there is too little evidence to prove that the theoretical expectation is right and thus at this moment we cannot speak of a correlation (yet). However, similarities in the data have been seen which means that further research would be interesting because there could be a correlation if multiple factors are included, like the economic and political situation. Until the relation between vulnerability and the Green Growth framework is examined more thoroughly, the conclusion is that there is no correlation between vulnerability and number of adopted policy instruments.

5. Conclusion

This thesis studied the influence of the OECD on the environmental policies of the member states in order to find out the extent of the influence that the OECD has. The OECD is an international organization that has expert knowledge on many different issues and one of them are environmental issues. The OECD has the role of an expert body in this analysis and the organization is known for their advisory papers. The recommendations are therefore often not questioned and accepted without further debate (Littoz-Monnet, 2017). The reason why researching the influence of the OECD is interesting in this case is because the policy area is environmental policy which has complications and is harder to influence than other policies areas. The reason why is because it is a highly politicized issue, action depends on economic capacity and the vulnerability of a country to climate change effects has influence as well.

The documents that are used to collect the data are the Green Growth Strategy (OECD, 2011) and the ten most recent Environmental Performance Reviews (EPRs) which are written by the OECD, in cooperation with the concerning country. The analysis consists of three parts which together provide an answer with multiple perspectives to the research question. The first part which establishes the relationship between the Green Growth Strategy and the EPRs combines two methods; a quantitative citation analysis and a qualitative discourse analysis. In the second part of the analysis the extent of the influence is explored and the data is collected by the preference attainment approach. In the Green Growth Strategy is a policy framework published with policy instruments. In the second part, the policy instruments are translated into indicators which can measure the number of instruments adopted per country. That data shows the extent of the influence, more adopted instruments mean a stronger influence of the OECD in that country. In the third part of the analysis, the same data is used as in the second part, however in that part is tested whether a higher vulnerability to climate change would affect the number of adopted instruments.

5.1 Linking results and theory

The citation analysis had a surprising result since in only two of the ten reviews there were references to the Green Growth Strategy, but not to the original document from 2011. In the EPRs of Denmark and Latvia references to the Green Growth Indicators document of 2017 were found. For the absence of references are two possible explanations clarified in the analysis. The first explanation is that the Green Growth Strategy has been published too long ago which means that it is more likely that the Strategy is used in other documents that are referenced in

the EPRs. So, that means that there is indirect citation and that is harder to figure out since all the referenced documents then should be checked for reference to the 2011 Green Growth publication. However, in order to find prove that would back up this possible explanation older EPRs were studied and more references were found. A second cause for the lack of references could be that the term 'Green Growth' has grown into a concept which would mean that other documents would not use references anymore. For this argument older EPRs has been studied as well and the result was when searching for the use of Green Growth that the concept has been used for the first time in 2012 which is the year after the 2011 publication of the strategy. This explanation also supports the need for a discourse analysis because it can indicate the context in which Green Growth is used.

Even though there are not many references to the original Green Growth document, the concept is used a lot in the EPRs. A qualitative discourse analysis was performed to figure out in which context Green Growth is used. Three main uses can be distinguished when analyzing the context of Green Growth. Most of the time Green Growth is used to indicate a goal, because it is often paired with the word towards and that indicates that you are working to achieve something, a goal. The title of the 2011 document was also 'Towards Green Growth' which can explain the fact that it used in the context of Green Growth often. A second word that indicates the meaning of goal is the word *promote/promoting*, because either it is used as that the goal itself needs promotion or that the means, in this case investments, need promotion in order to achieve the goal, Green Growth. The last word that indicates that the discourse of Green Growth is a goal is the word progress. Progress implies that there is a process going on and most of the time a process has a goal. A second context where Green Growth is used is in the context where the meaning of it is sustainable development, or in other words Green Growth is used as synonym for sustainable development. The concept is used as synonym most in the EPR of Norway where in all the other EPRs the chapter is called 'Towards Green Growth' in Norway it is called 'Sustainable development'. The content of that chapter is discussing the same issues and developments which means Green Growth and sustainable development are synonyms here. However, this is not the case in other EPRs because there the two concepts are used complementary which makes it more likely that Green Growth is related to sustainable development but instead of being a synonym it is a part of it. Lastly, Green Growth the way it is used in this thesis is as a strategy and/or framework. In the EPR of Belgium and Lithuania, Green Growth is a strategy and something that can be adopted into a plan. To conclude, Green Growth is used in more ways than just a framework and the discourse analysis provided evidence for a connection between Green Growth and the EPRs.

It is certain that Green Growth is a known concept in the member state countries and thus it is likely that there is some sort of influence of the OECD, even if the countries might have heard about Green Growth from another source. The second part of the analysis studied the extent of that influence by collecting data on the number of adopted policy instruments which were provided in the policy framework. There are big differences between the countries and also between the indicators in how often they are adopted. So, what are the results if you compare the countries?

Greece adopted the least number of instruments since only three of the indicators were detected in the EPR. The country that implemented the most instruments is Belgium with finding prove for eight out of ten indicators in their EPR. The other countries can be divided into two groups, the bottom group who adopted five or less instruments which is at the maximum half of the framework and the top group who adopted six or more. In the bottom group are the United Kingdom, Norway, Lithuania, Greece and Latvia. In the top group are Finland, Ireland, Belgium, Luxembourg and Denmark. Both of the groups have the same number of countries and the average amount of adopted instruments is 5,5. That indicates influence, but not very strong since barely more than half of the framework is adopted.

Besides differences between countries, there are also noticeable differences in popularity between the instruments since some of them are adopted a lot more than others. The indicator that was found in all of the EPRs is the support for renewable sources which is the instrument 'active technology support policies'. The instrument that is popular as well is the 'cap-and-trade permit systems' which is translated into two indicators 'GHG emission reduction' and 'air pollution regulations'. Both of those indicators are adopted by eight countries. The least popular instruments which has only been implemented by one country is the 'performance standards' that is translated in the instrument 'maximum on CO₂ emission in vehicles'. Another instrument that is not very popular is 'baseline-and-credit permit systems' which translated into 'biodiversity offsets/banking'. This one is only adopted by three countries; Ireland, Belgium and Luxembourg.

There is an influence of the OECD in the member states which is in some countries stronger than in others and the overall influence is medium. Are there explanations for why not all the instruments of the framework are adopted and why there are differences between the instruments? The literature provides four possible explanations. The first explanation is it depends on the level of technical difficulties. A main reason why experts have influence on environmental policy is because of 'uncertainty' (Haas, 1992). In a situation of uncertainty, the expert provides knowledge on how to tackle a difficult situation. The OECD provided the Green

Growth Strategy with the framework, but the policy-makers often do not have a deep-technical understanding of the problem. This explains why the instruments that require technical knowledge are implemented less. For example, the instrument 'performance standards' is only implemented by one country. That instrument requires knowledge on the standard CO₂ emissions of vehicles and which maximum would be helpful to the environment.

The fact that environmental issues are highly politicized is the second possible explanation (Rietig, 2014). Politicians, who are the policy-makers, tend to use the expert knowledge in their advantage. This means that, for example, when there are re-elections, politicians will more likely choose to implement instruments that have a quick result and are visible, like a deposit-and-refund system, because they can use that in their campaign. The third reason is the economic aspect that comes with environmental policy (Sprinz & Vaghtoranta, 1994). In order to successfully take action on climate change money is needed. When there is no money, because other issues are more pressing, the policy-makers have no other choice than to implement instruments that are cheaper, like a tax instrument since that one actually makes money as well. These three reasons do not explain the popularity of the first instrument, which is where the last reason comes in. The attention that other experts gave to an instrument matter as well. Multiple experts expressed the importance of reduction GHG emissions and improving the air pollution which makes it an instrument that countries cannot afford to ignore.

The third part of the analysis tested a different explanation to why some countries are more open to international cooperation and thus could be more influenced by expert bodies. The theory by Sprinz and Vaghtoranta (1994) provided the basis for the assumption that there could be a correlation between vulnerability to climate change and the number of adopted policy instruments. The data did not provide a conclusive answer since only half of the countries results supported this correlation. In Greece, Norway, the United Kingdom, Denmark and Finland the number of adopted policy instruments corresponds with their vulnerability to climate change which support the correlation theory. However, for the other five countries the differences were too big and thus the expectation is not proven right at the moment. The similarities do provide an argument to do further research and take other factors into consideration like the economic and political situation which could result in a correlation after all.

To conclude, this thesis examined the influence of the OECD on national environmental policy and aimed to answer the questions: to what extent does the Green Growth Strategy of the OECD

influence the national environmental policy of the member states? The answer to that question is that the OECD has influence on the environmental policy, however it is neither strong nor weak. The number of adopted policy instruments are what determines the extent of the influence and the average of that is 5.5 out of ten which makes it not strong nor weak. However, there are differences between the countries. In Belgium, the influence is strong since they adopted eight out of ten policy instruments. On the other side is Greece considering they only adopted three out of ten. Moreover, these are the results based on the data in this thesis but the study is too narrow to generalize it and more research needed to be done.

This result means that the first theoretical expectation is supported which is: the OECD has a (big) influence on the national environmental policies, because environmental policy is a complex and technical issue and the OECD can be seen as an epistemic community with good and deep understanding of the issue. The second expectation was contradictory which automatically makes it wrong if the first one is right. When it comes to the last expectation the results are too inconclusive which means that the expectation is not proven right but also not wrong. Further research is necessary to figure out what the relationship is between the vulnerability and the number of adopted policy instruments

5.2 Limitations & further research

This study used multiple research methods and looked at the question from different angles which adds to the confidence in the results of this study. The combination of the quantitative citation analysis with the discourse analysis resulted in more insight in Green Growth, but also inspiration for future research. The citation analysis surprising outcome of no references on its own would have suggested that there was no connection between the Green Growth Strategy and the EPRs. However, the discourse analysis gave a deeper understanding of Green Growth and pointed out that Green Growth is now a concept within the OECD and its member states with multiple meanings in different contexts. The combination of the two methods led to multiple questions for further research. At what point in time did Green Growth become a concept and was it not referenced anymore? Is Green Growth a concept outside of the OECD as well? A third research method complemented the study; the preference attainment approach. Where the first two methods were mainly for establishing a connection and creating a deeper understanding of Green Growth, the third method determined the extent of the influence in a systemic and thorough way. Even though the preference attainment approach is usually a part of process tracing, in this study it allowed me to research the influence in ten countries, instead

of only one or two with the usual case study. By being able to look at more countries the differences between the countries and instruments became more visible which ultimately led to a more balanced conclusion.

Despite the fact that the multiple research methods led to insightful results, there are other possible explanations for trends that this study pointed out. When it comes to the policy framework, the OECD is not the only expert body that came up with instruments to help governments with sustainable development. Therefore, you cannot say with certainty that the adopted instruments are 100 percent prove of OECD influence. An example that supports this argument is that one of the instruments, the deposit-refund systems, already existed in some countries before 2011 (OECD Finland, 2021). In order to find out whether the instruments are adopted by the countries because of the framework of the OECD or other advice further research is necessary. That research could consist of a more in-depth study of each country and their environmental policy process. The method process-tracing could point out in more detail which organizations are present in the policy-making process and which other organizations have the same instruments as the OECD. Another method could be a citation analysis of governments white papers in which the references would point out which organization influenced certain policy decisions.

For the vulnerability correlation could be other explanations as well. Even though this study did not claim that there is a correlation, there are similarities between the two aspects; vulnerability and the number of adopted policy instruments. Further research is necessary mainly to look deeper into the economic and political situation of the countries since those are two factors that are closely related and influential on environmental policy. Especially the economic situation could explain the similarities since four of the ten countries, Norway, the United Kingdom, Denmark and Finland, are all relatively rich which could lead to the explanation that there is a correlation between vulnerability and economic capacity. Still, more research is necessary in order to find support for that argument.

On the basis of this study with the available data, the results show that the OECD does have influence on the member states on environmental policy. However, this research is too narrow to generalize a conclusion for all experts, countries and environmental policies. This is because the data only comes from documents published by the OECD. Since all of the documents are from the OECD and Green Growth is a concept that has been introduced to the main public by that same organization it could lead to the situation where the connection between the OECD and the member states looks stronger than it is in reality. Moreover, ten countries cannot represent a general trend for the entire world and neither can the OECD for all

the expert bodies on environmental issues. The other limitation is at the same time a plus as well, namely looking at ten countries instead of one. The reason why it is a limitation is because there are still aspects and factors left unanswered because the research was more zoomed out. Covering ten countries did not allowed me to do an in-depth case study. If this had been an extensive case study the policy process and the actors involved would have been clearer. Therefore, the observations would have had more evidence and the influence of the OECD could have been proved with stronger evidence. The consequence of that is the uncertainty that the OECD might not be the only expert with these instruments and influence.

5.3 Implications

There are a couple of implications of these findings for the literature. The first one is that Green Growth is not just a strategy or framework, but can be used as a synonym for sustainable development and a goal. Since this research only focused on OECD documents, Green Growth was used a lot and in different contexts as the discourse analysis pointed out. However, what the findings do not point out is whether Green Growth is actually used by other academics or in government reports. A second implication is that environmental policy can be influenced, but there are factors that need to be taken into account. One of those factors is technical difficulty, if a recommendation or advice is too complicated and not explained properly, it is less likely to be adopted since the policy-makers do not have the same knowledge as the experts. Therefore, they will more likely choose the policy option that is understandable and easier to implement. The other two factors are harder to do something about because it is about economics and politics. If an advice or policy instrument is relatively cheap it has more chance to be adopted, because there are often more pressing problems that require money and thus that cannot be spend on environmental policy. Unfortunately, it is not possible to only give low budget advice when it comes to environmental issues as that will not solve the climate crisis. The same goes for politics, politicians will do what is best for them and their party and thus if the advice does not fit that picture, it has less chance to be adopted, but that is not something that an expert can change. Of course an expert can use this knowledge in their advantage when formulating their advice to make it more appealing to the concerned politician.

.

APPENDIX I EPRS ANALYZED

Year	Title	Source/URL
2022	OECD Environmental Performance Reviews UNITED KINGDOM 2022	https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-united-kingdom-2022_b6a2be87-en
2022	OECD Environmental Performance Reviews NORWAY 2022	https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-norway-2022 59e71c13-en
2021	OECD Environmental Performance Reviews FINLAND 2021	https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-finland-2021 d73547b7-en
2021	OECD Environmental Performance Reviews LITHUANIA 2021	https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-lithuania-2021_48d82b17-en
2021	OECD Environmental Performance Reviews IRELAND 2021	https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-ireland-2021 9ef10b4f-en
2021	OECD Environmental Performance Reviews BELIGUM 2021	https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-belgium-2021 738553c5-en
2020	OECD Environmental Performance Reviews LUXEMBOURG 2020	https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-luxembourg-2020 fd9f43e6-en
2020	OECD Environmental Performance Reviews GREECE 2020	https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-greece-2020_cec20289-en
2019	OECD Environmental Performance Reviews DENMARK 2019	https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-denmark-2019_1eeec492-en
2019	OECD Environmental Performance Reviews LATVIA 2019	https://www.oecd-ilibrary.org/environment/oecd-environmental-performance-reviews-latvia-2019_2cb03cdd-en

APPENDIX II DATA COLLECTION TABLE

Policy instrument	Indicator	Page
		Adopted: Yes/No
1. Cap-and-trade permit	GHG emission reductions	
systems		
	Air pollution regulations (SO ₂ ,	
	NO ₂ , VOC)	
2. Baseline-and-credit	Biodiversity offsets/banking	
permit systems	(e.g. REDD)	
3. Taxes or changes on	Taxes on water pollution	
pollution or resource use		
4. Taxes or charges on a	Fuel and coal taxes	
proxy (input or output)		
5. Subsidies	Subsidies for purchasing	
	environmental-friendly energy	
	equipment	
6. Deposit-refund systems	Deposit on beverage and	
	chemical containers	
7. Performance standards	Maximum on CO ₂ emissions	
	on motor vehicles	
8. Technology standards	Building houses with energy-	
	saving	
9. Active technology	Support for electricity	
support policies	generated by renewable	
	sources (example solar panels)	

References

- Andresen, S. (2000). Science and politics in international environmental regimes: Between integrity and involvement. Manchester University Press.
- Anguiano, D. (2022, July 31). *Lake Mead: shrinking waters uncover buried secrets and grisly finds*. The Guardian. Retrieved October 2, 2022, from https://www.theguardian.com/usnews/2022/jul/31/lake-mead-nevada-water-level-drought
- Benson, D. & Jordan, A. (2015). Environmental Policy: Protection and Regulation.

 International Encyclopedia of the Social & Behavioral Sciences, 778–783.

 https://doi.org/10.1016/b978-0-08-097086-8.91014-6
- Boswell, C. (2017). The role of expert knowledge in international organizations. In The Politics of Expertise in International Organizations (pp. 19-36). Routledge.
- Breakspear, S. (2012). The Policy Impact of PISA. *OECD Education Working Papers*. https://doi.org/10.1787/5k9fdfqffr28-en
- Christensen, J. (2022, July 14). Studying expert influence: a methodological agenda. *West European Politics*, 1–14. https://doi.org/10.1080/01402382.2022.2086387
- Cocklin, C. & Moon, K. (2020). Environmental Policy. *International Encyclopedia of Human Geography*, 227–233. https://doi.org/10.1016/b978-0-08-102295-5.10788-7
- Deutsche Welle (www.dw.com). (n.d.). Europe set for record wildfire land loss in 2022.

 DW.COM. Retrieved October 3, 2022, from https://www.dw.com/en/europe-set-for-record-wildfire-destruction-in-2022/a-62802068
- Eccleston, R. (2011). The OECD and global economic governance. *Australian Journal of International Affairs*, 65(2), 243–255. https://doi.org/10.1080/10357718.2011.550106
 Environmental country reviews OECD. (z.d.). https://www.oecd.org/env/country-reviews/

- Green Growth Indicators 2017. (n.d.). OECD Green Growth Studies | OECD iLibrary.

 Retrieved October 2, 2022, from https://www.oecd-ilibrary.org/environment/green-growth-indicators-2017/9789264268586-en
- Haas, P. M. (1992). Introduction: epistemic communities and international policy coordination. *International Organization*, *46*(1), 1–35. https://doi.org/10.1017/s0020818300001442
- Halperin, S., & Heath, O. (2020). Political research: methods and practical skills. Oxford University Press, USA.
- Kennedy, D. W. (2014, 11 April). *Challenging Expert Rule: The Politics of Global Governance*. https://dash.harvard.edu/handle/1/12063401
- Koch, S. (2017). International influence on forest governance in Tanzania: Analysing the role of aid experts in the REDD+ process. *Forest Policy and Economics*, 83, 181–190. https://doi.org/10.1016/j.forpol.2016.09.018
- Littoz-Monnet, A. (2017). Production and uses of expertise by international bureaucracies. In The Politics of Expertise in International Organizations (pp. 1-18). Routledge.
- Miller, C. A. (2001). Challenges in the application of science to global affairs: Contingency, trust, and moral order. Changing the atmosphere: Expert knowledge and environmental governance, 478.
- Nicolaisen, J. (2007). Citation analysis. Annual review of information science and technology, 41(1), 609-641.
- NOS. (2022, 18 mei). *Noordzeelanden gaan capaciteit windparken vertienvoudigen*. NOS.nl. https://nos.nl/artikel/2429371-noordzeelanden-gaan-capaciteit-windparken-vertienvoudigen
- OECD (2011), OECD Environmental Performance Reviews: Slovak Republic 2011, OECD Publishing. http://dx.doi.org/10.1787/9789264121836-en

- OECD (2012), OECD Environmental Performance Reviews: Germany 2012, OECD Publishing. http://dx.doi.org/10.1787/10.1787/9789264169302-en
- OECD (2012), OECD Environmental Performance Reviews: Slovenia 2012, OECD Publishing. http://dx.doi.org/10.1787/9789264169265-en
- OECD (2013), OECD Environmental Performance Reviews: Italy 2013, OECD Publishing. http://dx.doi.org/10.1787/9789264186378-en
- OECD (2016), OECD Environmental Performance Reviews: France 2016, OECD Publishing,
 Paris. http://dx.doi.org/10.1787/9789264252714-en
- OECD (2019), OECD Environmental Performance Reviews: Denmark 2019, OECD

 Environmental Performance Reviews, OECD Publishing, Paris,

 https://doi.org/10.1787/1eeec492-en.
- OECD (2019), OECD Environmental Performance Reviews: Latvia 2019, OECD

 Environmental Performance Reviews, OECD Publishing, Paris,

 https://doi.org/10.1787/2cb03cdd-en.
- OECD (2020), OECD Environmental Performance Reviews: Greece 2020, OECD

 Environmental Performance Reviews, OECD Publishing, Paris,

 https://doi.org/10.1787/cec20289-en.
- OECD (2020), OECD Environmental Performance Reviews: Luxembourg 2020, OECD

 Environmental Performance Reviews, OECD Publishing, Paris,

 https://doi.org/10.1787/fd9f43e6-en.
- OECD (2021), OECD Environmental Performance Reviews: Belgium 2021, OECD

 Environmental Performance Reviews, OECD Publishing, Paris,

 https://doi.org/10.1787/738553c5-en.
- OECD (2021), OECD Environmental Performance Reviews: Finland 2021, OECD

- Environmental Performance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/d73547b7-en.
- OECD (2021), OECD Environmental Performance Reviews: Lithuania 2021, OECD

 Environmental Performance Reviews, OECD Publishing, Paris,

 https://doi.org/10.1787/48d82b17-en
- OECD (2021), OECD Environmental Performance Reviews: Ireland 2021, OECD

 Environmental Performance Reviews, OECD Publishing, Paris,

 https://doi.org/10.1787/9ef10b4f-en.
- OECD (2022), OECD Environmental Performance Reviews: Norway 2022, OECD

 Environmental Performance Reviews, OECD Publishing, Paris,

 https://doi.org/10.1787/59e71c13-en
- OECD (2022), OECD Environmental Performance Reviews: United Kingdom 2022, OECD

 Environmental Performance Reviews, OECD Publishing, Paris,

 https://doi.org/10.1787/b6a2be87-en.
- Osareh, F. (1996). Bibliometrics, Citation Analysis and Co-Citation Analysis: A Review of Literature I. *Libri*, 46(3). https://doi.org/10.1515/libr.1996.46.3.149
- Pester, P. (2021, 12 December). When did scientists first warn humanity about climate change?

 livescience.com. https://www.livescience.com/humans-first-warned-about-climate-change
- PISA PISA. (z.d.). Geraadpleegd op 3 november 2022, van https://www.oecd.org/pisa/
- Rietig, K. (2014). 'Neutral' experts? How input of scientific expertise matters in international environmental negotiations. *Policy Sciences*, 47(2), 141–160. https://doi.org/10.1007/s11077-013-9188-8

- Sprinz, D., & Vaghtoranta, T. (2017). The interest-based explanation of international environmental policy. In International Environmental Governance (pp. 131-159). Routledge.
- Takao, Y. (2015). Making environmental policy work with civic science: the intermediary role of expert citizens at the Japanese local level. *Local Environment*, 21(9), 1100–1117. https://doi.org/10.1080/13549839.2015.1070335
- Team, B. T. V. J. (2022, August 31). *Pakistan floods: Map and satellite photos show extent of devastation*. BBC News. Retrieved October 2, 2022, from https://www.bbc.com/news/world-asia-62728678
- Towards Green Growth. (2011, May 25). *OECD Green Growth Studies*. https://doi.org/10.1787/9789264111318-en
- Towards Green Growth? (2015, July 27). *OECD Green Growth Studies*. https://doi.org/10.1787/9789264234437-en
- Vishnubhotla, V. (n.d.). Mapped: How Climate Change Affected Europe. GreenMatch. https://www.greenmatch.co.uk/blog/2019/04/climate-change-europe
- What is REDD+? (z.d.). https://unfccc.int/topics/land-use/workstreams/redd/what-is-redd.

 Geraadpleegd op 3 november 2022, van https://unfccc.int/topics/land-use/workstreams/redd/what-is-redd
- Winter Package. (2016, 11 July). European Commission European Commission.

 https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester-timeline/winter-package_en