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## **The Role of Scientific Knowledge in International Climate Negotiations: A Look at the COP26**

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Governance and Global Affairs

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**The Role of Scientific Knowledge in International Climate  
Negotiations:  
A Look at the COP26**

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*by*

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## **Abstract**

This paper investigates the role of scientific knowledge during international climate negotiations based on the case of the COP26. This study explores the use of the IPCC reports during the COP26 negotiation process, from the preparations of delegations to the actual negotiations. The findings of this study are fourfold: (1) the IPCC reports were used to a small extent during the COP26 negotiation process; (2) when used, the IPCC reports were mostly used in an indirect way, although direct uses were sometimes observed; (3) despite their limited use, the IPCC reports appear to be highly usable tools for policy making, as per their internal characteristics; (4) the limited use of the IPCC reports is explained by numerous external factors, with the most prominent one being the overriding political preferences of States.

**Key words:** knowledge use, international climate negotiations, IPCC reports, COP26, case study

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# **Chapter 1: Introduction**

## **1.1 Climate Change at the Intersection of Science and Policy**

Climate change has been identified worldwide as one of the largest threats to humanity; yet the contents of international climate policies seem to be unaligned with the scientific knowledge available on the necessary steps to take in order to avoid catastrophic scenarios (Helm, 2008). As such, it appears that, despite the acknowledgment of climate change being an existential threat to humanity, scientific knowledge on the topic is widely underused. Particularly when it comes to climate change policy, following the advice of scientists is essential in designing adequate and sustainable policies. As such, many argue that science should play a more prominent role in climate policy, as it allows for the study of climate change and its impacts on society (Hourcade et al., 2010; Ruffini, 2018).

## **1.2 The Science: The Work of the IPCC**

Given the importance of science in climate policy, extensive scientific research has been conducted in the field of climate change. One of the most prominent and widely recognized sources of scientific knowledge on climate change is the Intergovernmental Panel on Climate Change (IPCC), which regularly publishes scientific reports on the assessment of the science related to climate change. The IPCC was established to provide policy makers with climate change assessments and forecasts, as well as policy suggestions for adaptation and mitigation (International Panel on Climate Change, 2022). As an example, the so-called assessment reports are designed to assess the state of climate change in the world, so as to provide policy makers with data to inform their policy making processes (Helm, 2008). The IPCC has been successful in achieving its goals, as it has provided a scientific basis for political discussion and policy making (Helm, 2008). In fact, the main goal of the IPCC is to provide the scientific evidence needed for policy makers to make informed decisions in the field of climate policy, drawing on many disciplines, such as meteorology, chemistry, biology, as well as ecology (Cagle & Tillery, 2015). Despite this success, decades of international climate policies have had little impact on changing the forecasted climate trends.

## **1.3 The Policy: The State of International Climate Policy**

In the last few decades, international climate policies have evolved, although they have remained largely unaligned with the scientific advice available. The beginnings of international cooperation on climate policy date back to 1979, when the First World Climate Conference

took place, where climate change first emerged as an issue requiring international cooperation (Gupta, 2010). Subsequently, during the 1992 Rio Earth Summit, the United Nations Framework Convention on Climate Change (UNFCCC) was set up (Helm, 2008). While this summit did not lead to much political or economic action by Member States, it strengthened the role of the IPCC in providing scientific assessment to the international community as a basis for policy making (Helm, 2008). Within the scope of the UNFCCC, periodic Conferences of the Parties (COPs) started to be held. One of the most influential ones was the third COP, which gave rise to the 1997 Kyoto Protocol, a milestone in international climate policy. While this agreement led industrialized countries to set high emissions targets for the reduction of greenhouse gas emissions, progress on meeting these targets has been mostly inexistent (Helm, 2008). Since then, the 2015 Paris Agreements have set the goal of keeping global temperature well below 2°C, aiming for 1.5°C (United Nations Framework Convention on Climate Change, 2022b). In this context, countries have submitted their Nationally Determined Contributions (NDCs), outlining countries' action plans to tackle climate change on a national level. In 2021, the COP26 took place, during which the Glasgow Climate Pact was established.

#### **1.4 The Science-Policy Gap**

Despite the numerous calls for action by the IPCC, environmental think tanks and research institutes on climate change, too little action has been taken by governments, and countries are far from meeting their goals in terms of climate change adaptation and mitigation (Craft & Fisher, 2017; Tompkins et al., 2018). In the scope of the Paris Agreements, the Global Stocktake was established as a process designed to assess the progress made by States in meeting the targets of the Paris Agreements (Perez Catala & Wyns, 2022). In the run up to the first stocktaking session in 2023, preliminary assessments undertaken have revealed disparities between the targets set in terms of CO<sub>2</sub> reduction and the current emissions levels in numerous countries, including large emitters, such as the United States and China (Perez Catala & Wyns, 2022; Iyer et al., 2017; Gallagher et al., 2019). When comparing scientific evidence and the outcomes of international climate agreements, it becomes clear that there is an important gap between what science says and the outcomes of international negotiations. This raises the question of why climate action and policies have been so limited despite the scientific evidence available. Climate change being a global issue with its negative consequences going beyond national borders, uncoordinated climate action by governments is ineffective. In fact, the issue of climate change is one to be tackled globally, which makes international negotiations



particularly crucial in designing effective climate policies. As such, this paper will investigate the following research question: *What was the role of the IPCC's scientific reports in the COP26 negotiation process?*

### **1.5 Aims of the Research**

Through its focus on international climate negotiations, this paper seeks to fill a gap in the academic literature by investigating the interaction of science and policy, in the context of climate change. Previous studies on international climate policy have focused on the role of other actors, such as States and international organizations in climate policy (Upadhyaya et al., 2018; Nordhaus, 2015; Methmann, 2010; Silva-Send, 2012; Bättig & Bernauer, 2009; Corbett et al., 2020). However, the role of the scientific community in this policy process has been largely overlooked. Further, literature on knowledge use has mostly focused on the use of knowledge in domestic policy making (Fernandez & Roberts, 2015; Kirby, 2000). Conversely, the use of knowledge in international policy making has been largely overlooked. This study fills this gap in the literature by investigating knowledge use in an international negotiation context. Lastly, existing literature on negotiations has focused on the strategic aspects of negotiations, as well as the power dynamics between States at international negotiations (Bailer, 2012; Downie, 2014; Thomas, 2021; Panke, 2012). While a few have studied the role of science in international climate negotiations, they have done so with a focus on the outcomes of negotiations, such as the implementation phase, thereby focusing on the implementation of international policies at a national level (Huggel et al., 2015; Skodvin, 2000; Vogel et al., 2007). Therefore, this paper will investigate the role of knowledge in the negotiation phase, as this stage of the policy making process has remained understudied. As such, this paper will adopt a process-oriented angle to the science-policy interface in the realm of international climate policy.

From a societal perspective, studying this question is relevant because it highlights what is taken into account in designing international climate policy and the extent to which scientific assessments are used by policy makers. This allows various actors to reflect on the way in which scientific knowledge is used by political actors in policy making contexts. Further, understanding the extent to which the IPCC reports are effective tools for policy making will enable various actors, such as government officials and members of civil society organizations, to be aware of how to make better use of the reports.

## **1.6 Next Chapters**

This paper is divided into five chapters. *Chapter 2* establishes the theoretical framework surrounding the use of knowledge in international climate negotiations. In this chapter, models of knowledge use, models of knowledge usability, science-policy interfaces, as well as factors influencing negotiations are discussed. Following that, the methodology used to conduct this study is described in *Chapter 3*, covering the case selection, as well as the methods of data collection and analysis. Subsequently, in *Chapter 4*, the results of the study are presented and analyzed, drawing on respondents' insights shared during the interviews. Finally, *Chapter 5* discusses the findings of the research before exploring their practical relevance and implications for future research.

## **Chapter 2: Theoretical Framework**

This chapter provides an overview of existing research and theories, which suggest the use of scientific knowledge, such as the IPCC reports, in the COP26 negotiation process. Exploring these theories will be essential in trying to unveil the complexities of this topic. As such, theories on the use and usability of scientific knowledge, as well as on the interactions between science and policy, will be discussed. This allows the identification of prevalent models of knowledge use during the COP26 negotiation process, as well as of the usability of the IPCC reports for policy making. Following that, alternative factors which potentially influenced the COP26 negotiation process will be investigated. Lastly, expectations for the analysis will be briefly outlined.

### **2.1 The Use of Knowledge in Decision Making**

Scientific knowledge plays a large role in decision making processes, where it is used in different ways. Perceived as collaborative decision making, negotiations are a type of decision making (Raiffa et al., 2002). Therefore, in this study, theories on the use of knowledge in decision making settings will, by extension, apply to negotiation settings as well, the latter being a subset of the former. When it comes to knowledge use in negotiation settings, Fernandez & Roberts (2015) distinguish between two relevant types of knowledge, namely data and insights. While data refers to sheer knowledge, such as scientific reports, insights comprise the understanding of the other negotiating parties' interests, needs and weaknesses. Although data can inform decision making, it does not drive negotiations, as it does not exert a dominant influence during negotiations (Fernandez & Roberts, 2015). What does, however, drive negotiations are the insights that negotiators possess, as they reduce the uncertainty related to the other negotiating party's behavior and strategy (Fernandez & Roberts, 2015). This study focuses on the data component of knowledge, as conceptualized by Fernandez & Roberts (2015), where the data investigated is the IPCC reports.

The role of the IPCC reports, as a source of scientific knowledge, will thus be examined in the context of decision making. In investigating how knowledge is used in decision making, Weiss (1979) establishes two main perspectives, namely linear and nonlinear ones. In the linear perspective, knowledge precedes decision making. Weiss (1979) distinguishes between two linear approaches of knowledge use. The first one is the knowledge-driven approach, which posits that, if knowledge is produced, it will be used. The second one is the problem-solving approach, according to which knowledge is produced in order to address a specific issue. This

direct application of knowledge to solve issues is very rare, as it implies a consensus on the policy goals, as well as that goals be well-defined and non-controversial (Kirby, 2000).

By contrast, in the nonlinear perspective, knowledge is used indirectly. This means that the scientific evidence, namely the content of scientific reports themselves, will not be directly applied in the formulation of a policy. Weiss (1979) establishes four models of knowledge use, describing ways in which knowledge is used indirectly. Firstly, in the interactive model, knowledge production takes place through the interaction of various stakeholders. As such, knowledge does not precede decision making, but both processes occur simultaneously instead. This means that the production of the reports occurs at the same time as the policy is formulated, through the interaction of scientific experts and policy makers throughout the whole process. As such, knowledge is produced and used simultaneously by the same group of individuals. The second model described by Weiss (1979) is the political one, where knowledge is only used if it fits preexisting policy preferences. This view of knowledge as political ammunition prevails when new evidence tends to be rejected by policy makers (Kirby, 2000). As such, knowledge is used in a selective, rather than systematic, way. This perspective is in line with motivated reasoning theory, according to which individuals' prior attitudes play a large role in their interpretation of information, thus impacting the way knowledge is used (Taber & Lodge, 2006). According to this model, knowledge is used to back up a preexisting political position. The third model is the tactical model, where knowledge is used as part of a broader strategy. For example, knowledge can be used by a government to show citizens their involvement in a certain issue, demonstrating that the government is considering scientific knowledge in its decision making. In this model, the substance of the knowledge produced matters less than the mere act of using knowledge for decision making. This way, knowledge can be used to delay decision making, either when a controversial issue emerges or in order to maintain the status quo (Kirby, 2000). Another tactical use of knowledge is to increase the legitimacy of a policy. However, in order for knowledge to enhance legitimacy, there also needs to be a separation between science and policy (Sundqvist et al., 2017). In this model, knowledge is used strategically to increase legitimacy. The fourth and last model described by Weiss (1979) is the enlightenment model, where knowledge is used as a general source of ideas. In this model, knowledge is used to gain new perspectives on an issue, thereby allowing policy makers to think about how to best approach a policy issue. More precisely, knowledge is used to help policy makers in formulating future policy agendas and in defining policy problems (Weiss, 1977). As a result of this indirect use of knowledge, its influence on policy outcomes is only visible in the long-term.

These models of knowledge use form the basis of the analysis, serving as references for the different ways in which knowledge is used in decision making. As such, this study investigates the ways in which the IPCC reports were used during the COP26 negotiation process, taking into account the above-mentioned models of knowledge use. While many of the models of knowledge use may apply to the case of the IPCC reports, this study seeks to investigate which uses prevailed during the negotiations and the reasons behind the dominance of a certain model in that case.

## **2.2 The Drivers of Science Usability**

In order to understand why scientific knowledge is used in certain ways or remains unused, understanding what drives the usability of science is crucial. This allows for the understanding of why the IPCC reports are used in the way they are used. In the case that they would not be used much, understanding what makes science usable would shed light on why the reports are largely unused. Usable scientific knowledge is science made to contribute to the design of a specific policy (Dilling & Lemos, 2011). It should provide information that is readily usable by policy makers who intend to design effective policies in order to address a given issue (Dilling & Lemos, 2011).

Considerable progress has been made in increasing the usability of climate change science for supporting decision making in policy contexts (Feldman & Ingram, 2009). One of the first developed models of science usability is the loading-dock model, in which scientists prepare scientific information for general use, without consulting policy makers and without understanding the specific needs of policy makers. While the loading-dock model of decision support used to prevail in science usability literature, it has been proven to be ineffective due to the disconnect between the scientific reports produced and the needs of policy makers (Feldman & Ingram, 2009). One way to increase the usability of science is through iterativity, that is through the interaction of knowledge producers and knowledge users (Dilling & Lemos, 2011). As such, there needs to be a two-way communication between policy makers and scientists in order for scientific knowledge to be effective in supporting decision making (Feldman & Ingram, 2009). This sustained contact between scientists and policy makers is key for research to be grounded in the real world, and therefore usable (Jacobs et al., 2005). In the model of iterativity, there are three necessary components for the effective co-production of knowledge (Lemos & Morehouse, 2005). Firstly, interdisciplinarity is essential, since the production of knowledge draws on many different disciplines that complement each other. As

such, there needs to be an effort by scientists from various disciplines to collaborate on a certain research project. This is especially relevant for the issue of climate change, as its complex nature places it at the crossroads of many disciplines (Lemos & Morehouse, 2005). Secondly, there needs to be an interaction between stakeholders. More precisely, users of knowledge, such as policy makers, must be involved in different stages of the research. Thirdly, there needs to be usable science, meaning knowledge that meets the needs of knowledge users for policy making, such as the need to have information about a specific scientific phenomenon, relevant to the policy issues discussed (Lemos & Morehouse, 2005). In line with the iterativity model, the end-to-end model aims at bridging the gap between scientific research and real-world issues, through the co-production of scientific knowledge (Lemos & Morehouse, 2005). This model posits that there should be an extensive interaction between researchers and consumers of information. One criticism of this model is the difficulties sometimes faced in applying knowledge to solving problems (Lemos & Morehouse, 2005).

This iterativity between science and policy can be achieved through knowledge networks, which provide continuous communication between various stakeholders (Feldman & Ingram, 2009). In order for knowledge networks to be effective, managing the boundaries between knowledge and policy, meaning the interaction between science and policy, is crucial (Cash et al., 2003). Further, for information to be relevant for policy making, Cash et al. (2003) identify three necessary attributes, namely salience, legitimacy, and credibility. The tradeoff between these three attributes must be adequately managed for knowledge networks to effectively produce information in a way that is relevant to the policy makers targeted. If this tradeoff is not managed adequately, the knowledge produced risks being irrelevant to policy makers, and therefore not fit-for-purpose. The first attribute is credibility, which is achieved when the information created is trusted by policy makers. This occurs when the information meets technical standards and when it is scientifically plausible. The second attribute, legitimacy, is achieved when there is a perceived procedural fairness in the knowledge production process. As such, information is legitimate when it is unbiased, through the consideration of multiple views in the production of knowledge. The third attribute, salience, is achieved when the information created is relevant to decision makers. For information to be relevant for policy making, a certain threshold of salience, legitimacy and credibility needs to be reached. This means that the information needs to be sufficiently relevant to policy makers, trusted by them, as well as produced in a fair manner. The challenge in determining the appropriate threshold is that actors on different sides of the boundaries perceive these attributes differently (Cash et al., 2003). This means that, for instance, a desirable level of legitimacy may differ across

individuals involved in knowledge production, and individuals involved in policy making, due to their differing perspectives.

The management of the tradeoff between legitimacy, credibility and salience is facilitated by boundary organizations (Cash et al., 2006). Boundary organizations play the role of an intermediary between scientists and decision makers (Feldman & Ingram, 2009). Boundary organizations have four functions (Cash et al., 2006). Firstly, they convene stakeholders by creating a forum where parties can come together. Secondly, they translate, both literally and metaphorically (Cash et al, 2006). Doing so, boundary organizations serve to overcome the main issue of the loading-dock model, namely the lack of accessibility of science to policy makers (Feldman & Ingram, 2009). In fact, those organizations translate the jargon and technicalities of scientific knowledge into information understandable and action-oriented for policy makers (Feldman & Ingram, 2009). Thirdly, they facilitate collaboration by bringing parties together for the co-production of knowledge across boundaries (Cash et al., 2006). Fourthly, they play the role of a mediator by ensuring that all interests are represented in a way that is perceived as fair (Cash et al., 2006).

Having established a positive correlation between iterativity and science usability, there are a number of factors that play a role in enhancing these. According to Lemos & Morehouse (2005), three factors play a role in achieving a desirable level of iterativity. Firstly, there needs to be a fit between knowledge production and application, meaning that the relevance of knowledge for policy making purposes must be achieved. Secondly, scientists must be flexible and willing to work on interdisciplinary projects. Thirdly, sufficient resources, such as funds, personnel, and time, should be available for effective co-production to take place (Lemos & Morehouse, 2005). Further, external factors play a role in the usability of science. For example, reasons why science is sometimes not usable are the mismatch between existing policy goals and science or the lack of realistic courses of action posited by knowledge (Dilling & Lemos, 2011).

Applying these theoretical models of science usability to the case of the IPCC reports allows to establish the degree to which the IPCC reports are usable for policy making. As such, these theories serve as the basis for the evaluation of the IPCC reports' usability. Understanding how much the IPCC reports score on the various usability criteria sheds light on which aspects of the reports drive or hinder their usability. Further, the role of the IPCC as a boundary organization, will be investigated to understand how it can facilitate the use of its reports for policy making.

### **2.3 The IPCC as a Science – Policy Interface**

As previously established, the interaction between science and policy is one of the main factors driving science usability. For scientific knowledge to be usable, there needs to be an interaction between scientific experts and policy makers during the knowledge production process. This ensures that the knowledge produced is fit-for-purpose and relevant to policy makers, in addition to being scientifically reliable. The IPCC was established as the main science-policy interface in the field of climate change (Ruffini, 2018). The nature of the IPCC is twofold (Ruffini, 2018). On the one hand, it is a scientific body that oversees the development of the climate assessment reports. On the other hand, it is a political body that gathers country representatives who are members of the Climate Convention to discuss the scientific reports. It is this dual nature that makes the IPCC a science-policy interface. Following from this, Ruffini (2018) argues that the IPCC is at the core of the science diplomacy nexus, the goal of which is to bridge the gap between knowledge production and foreign affairs.

The IPCC's process of knowledge production relies on exchanges between scientists and government officials. More precisely, scientific reports are adopted by consensus by Member States (Ruffini, 2018). While the substance of the reports is not discussed in the assemblies, the formulation, the order of the arguments, and the aspects to be highlighted are open for discussion. This working procedure, referred to as science diplomacy, has guided the discussion on climate change and has increased the acceptance of scientific knowledge (Ruffini, 2018). This was especially important to achieve in the field of climate change, as it is characterized by high uncertainty (Hourcade et al., 2010).

Despite the crucial role iterativity plays in science usability, several limits of science diplomacy have been identified. First, Ruffini (2018) criticizes an imbalance in the science-policy interface. As such, the opportunity given to diplomats to comment on the draft texts is underused. This points to the general disconnect of diplomats with science (Milkoreit, 2015). A second limitation identified by Ruffini (2018) is that, even when there is a consensus on scientific matters, diplomatic agreements are far from guaranteed. In fact, a lack of consensus on the best courses of action given the scientific knowledge agreed upon often prevails. This challenge explains the gap between science and policy. As such, Ruffini (2018) argues that the limits of this system are mainly explained by States' national interests, which steer science diplomacy. States' preferences for ensuring their sovereignty lead to the rejection of a top-down approach when it comes to tackling climate change globally (Ruffini, 2018).



Understanding the role of the IPCC as the main science-policy interface in the field of climate change is crucial, as it will serve as the basis for analyzing the place of the IPCC reports in international negotiations. Besides this, the above-mentioned limitations of science diplomacy shed light on the reasons why the IPCC reports are underused.

## **2.4 Alternative Factors influencing International Negotiations**

Aside from scientific knowledge, there are other factors that play a large role in international negotiations. Understanding these factors and evaluating how influential they are is essential in comparing the importance of knowledge with that of alternative factors. Based on existing theories, the most prominent drivers in international negotiations are States' political agendas, leadership, as well as trust.

The first factor, and perhaps the most influential one in international negotiations, is States' political agendas. Negotiations are largely shaped by international politics, and thus by drivers external to the specific policy issue discussed (Sykora-Bodie & Morrison, 2019). In the case of the COP26, this implies that the negotiations would be influenced by international events unrelated to the climate change issue itself. Sykora-Bodie & Morrison (2019) further argue that international crises, such as wars and large-scale human rights violations, have a large impact on the communication and diplomatic relations between States, thus influencing international negotiations generally. As such, factors influencing the COP26 do not need to be solely related to States' positions towards international climate action but can also result from geopolitical dynamics.

A second influential factor in international negotiations is leadership. Leadership is crucial for reaching consensus and the establishment of leader figures can steer negotiation outcomes greatly (Sykora-Bodie & Morrison, 2019). This makes this factor especially relevant to the COP26, as the COPs are consensus-based negotiation processes. With regards to leadership, Young (2009) distinguishes between several prominent types, the most powerful one being structural leadership. This type of leadership mainly comes from an actor's political power. In the context of the COP26, this means that States with a lot of international power have a stronger voice during the negotiations. Another type of leadership relevant to the COP26 setting is environmental leadership, which finds its source in an actor's demonstrated national policies and practice (Young, 2009). This gives the actor legitimacy in advocating for its policy position, thus giving the actor enhanced leverage in negotiations. This type of leadership has been visible at COPs through coalitions built by several States around a common discourse (De

Agueda Corneloup & Mol, 2013). As such, Small Islands Developing States (SIDS) have gained environmental leadership through emotional discourses, by using their personal experiences as a leverage to enhance ambition and thus influence the negotiation process (COP15, 2009). Resulting from these leadership dynamics, the emergence of leader figures can play a critical role in driving the negotiation outcomes one way or another.

Beyond the ability of leaders to influence negotiations outcomes, trust among negotiators is crucial for successful negotiations and for reaching consensus (Sykora-Bodie & Morrison, 2019). Trust among negotiators, and more generally among States, is developed over years of negotiations and interactions, and is reinforced through cooperation in various fields (Sykora-Bodie & Morrison, 2019). As such, when trust is high, States are more willing to compromise in order to reach an agreement, thus having a large impact on the negotiation process.

These three factors appear to have an influential role in negotiations. In order to determine the role of the IPCC's reports in the COP26 negotiation process, evaluating the degree of influence of these three factors will serve to understand why the reports are used to a limited extent.

## **2.5 Expectations**

Existing literature shows various perspectives on the use of knowledge in negotiations. Based on the theories described in this chapter, there are a few expectations that can be laid out regarding the role of the IPCC's scientific reports in the COP26 negotiation process. International negotiations share the limitation that during those, the national interests of States are prioritized over issues of common interest (Ruffini, 2018). This prioritization means that, in these settings, the consideration of scientific knowledge comes after that of national interests. As a result, during international negotiations, such as the COP26, scientific evidence, such as the IPCC reports, tend to be used to a small extent. Following from this, the first expectation is that, given that there are factors external to scientific knowledge that exercise a large influence on the negotiations' outcomes, the IPCC reports were only used to a small extent during the COP26 negotiation process.

*E1: The IPCC reports, as a source of scientific knowledge, were used to a small extent during the COP26 negotiation process.*

Further, according to the models of knowledge use developed by Weiss (1979), knowledge is used in a linear way when there is a consensus on policy goals and when goals are well-defined. International climate negotiations represent contexts characterized by highly contested goals, as these negotiations serve the purpose of finding a compromise between States' positions (Kesternich et al., 2021). Therefore, we expect that, in the case of the COP26, there was no pre-existing consensus on policy goals. This means that it is likely that the IPCC reports were not used in a linear way during the COP26 negotiation process. As such, the second expectation is that the IPCC reports were used in non-linear ways.

*E2: The IPCC reports were only used in non-linear ways.*

When it comes to the usability of the IPCC reports, the model of iterativity posits that iterativity is key for scientific knowledge to be usable, which is enabled by knowledge networks (Lemos & Morehouse, 2005). According to Ruffini (2018), the organizational structure of the IPCC is highly interactive, which is in accordance with the way properly functioning knowledge networks are defined by Feldman & Ingram (2009). As a result, the third expectation is that the IPCC reports are highly usable tools for policy making. It is worth noting that a report being usable does not mean that it is used a lot in practice, it only means that the reasons why it could be used more are not related to the internal attributes of the reports, but to external factors. This explains why, despite the expectation that the reports are highly usable (E3), it is expected that they were not used much (E1).

*E3: The IPCC reports are highly usable for policy making.*

In trying to unveil the reasons why the IPCC reports are underused, Ruffini (2018) argues that disregarding the IPCC reports' internal attributes, external factors, such as the national interests of States, override the use of scientific knowledge during negotiations. Other scholars who also share this view argue that, besides negotiations being heavily shaped by States' political agendas, leadership and trust also exert a significant influence over the negotiations (Sykora-Bodie & Morrison, 2019; Young, 2009). Thus, the fourth expectation is that the IPCC reports are underused due to overriding political preferences, the establishment of leaders, as well as the level of trust between negotiators.

*E4: The IPCC reports are underused due to the overriding political preferences of States, the establishment of leaders, as well as the level of trust between negotiators.*

## **Chapter 3: Methods**

### **3.1 Research Design**

The purpose of this study is to explore the role of the IPCC reports in the COP26 negotiation process; thus, this research is qualitative in nature. Qualitative designs allow for the in-depth exploration and analysis of a phenomenon, thus being best suited for this study. This research uses a small-N within-case study design, where one case is used as the unit of analysis and numerous observations are made on the case studied (6 & Bellamy, 2011). This type of research design allows for the exploration of the complexities of the case to be studied. The advantage of within-case studies is that they allow for the collection of rich, complex, and detailed data on a specific case, thus providing in-depth knowledge on an issue (6 & Bellamy, 2011). This research design is therefore best suited for this study, as the aim is to provide an in-depth analysis of a specific phenomenon.

### **3.2 Case Selection**

Particularly when it comes to within-case research designs, the selection of a case is essential, as it constitutes the focus of the research. In this study, the COP26 is selected as the case. In examining the role of scientific knowledge in negotiations, the field of climate change is particularly interesting. In fact, climate change as a policy issue is at the crossroads between many disciplines, as policy decisions in this field draw heavily on science. Therefore, exploring the role of science in negotiations is especially relevant in the field of climate change, thus the selection of a climate negotiation for this study. Further, the COP was selected since it is the largest international negotiation in the field of climate change and is used as a reference for international climate negotiations. Lastly, the choice to select the COP26, rather than any other COP, is that it is the most recent COP, thus making the findings of the present study most relevant in light of today's international context. In fact, this research aims at investigating the use of the IPCC reports in negotiations. The COP26 allows for the exploration of this phenomenon, as it is an international negotiation. Since the IPCC is an international body focusing on climate change issues, with its reports being internationally agreed documents, studying their use in international climate negotiations seems appropriate.

### **3.3 Operationalization**

In *Chapter 2*, four expectations were outlined based on the theory gathered. These expectations served as a basis for designing the interview questions. As such, in the first part of the interview,

the respondents were asked about the preparations of their delegation ahead of the COP26, as well as about the argumentation used during the negotiations. This allowed for the exploration of the extent to which the reports were used, both in the preparations and negotiation. Further, follow-up questions were asked in order to understand the ways in which the IPCC reports were used during these two phases. Following this, if not mentioned by the respondents already, they were asked about other factors and arguments used by delegates during the negotiations. This enabled the exploration of alternative factors influencing the COP26 negotiation process. Lastly, the interview concluded with questions about the respondents' perceptions of the usability of the IPCC reports as a tool for negotiations. The complete interview guide can be found in *Appendix 1*.

In order to analyze the data collected, a coding scheme was developed, with four main codes and several subcodes. The four codes correspond to the four subparts of *Chapter 2*, namely the extent of the use of the IPCC reports, the models of knowledge use, the perceived usability of the IPCC reports, and other factors mentioned by respondents. For the first code, two subcodes were created, covering the two phases of the COP26 negotiation process. For the second and third codes, subcodes were developed in line with the theories they stemmed from. More precisely, for the second code, the subcodes were for each of the models of knowledge use developed by Weiss (1979). Regarding the third code, two subcodes were created to account for the two models evaluating science usability. While the subcodes of the first three codes were developed in a deductive manner, the subcodes of the fourth code were developed inductively, as they emerged from the data collected. In fact, the subcodes of the fourth code correspond to the alternative factors mentioned by the respondents during the interviews and were thus not based on the theoretical framework developed in *Chapter 2*. Lastly, I coded for three characteristics of the respondents that seemed relevant in order to be able to observe interesting differences between groups. Those three characteristics were the experience of the respondent in COPs, the background of the respondent, as well as the negotiating block to which the country of the respondent belongs to at COPs. *Table 1* shows the coding scheme that was developed, with explanations of the measurements used.

**Table 1: Interviews Coding Scheme**

Code	Measure	Explanation
Use of IPCC reports	Yes, average, or no	For each phase of the COP26 negotiation process, if the respondents' answers reveal the extensive use of the IPCC reports, "yes" is recorded. If their answers reveal that they use the IPCC reports, but only to a small extent, "average" is recorded. If their answers reveal that they do not use the IPCC reports, "no" is recorded.
Models of knowledge use	Yes or no	If the respondents' answers reveal characteristics of the model, "yes" is recorded, if not, "no" is recorded.
Perceived usability of IPCC reports	High, average, or low	Each of the two subcodes corresponds to a model with three criteria. For each of the subcodes, if the respondent perceives the IPCC reports as fulfilling the criteria, "high" is recorded, if not "low" is recorded. If the criteria are perceived as partially fulfilled, "average" is recorded.
Other factors mentioned	Yes or no	If the factor was mentioned by the respondent, "yes" is recorded, if not, "no" is recorded.

### 3.4 Data Collection and Methods of Analysis

In order to analyze the role of the IPCC reports during the COP26 negotiation process, the data was collected through interviews. More precisely, ten semi-structured interviews were conducted between March 25<sup>th</sup>, 2022, and May 2<sup>nd</sup>, 2022. The interviewees were all individuals who were part of a country delegation at the COP26. Interviewing negotiators from country delegations at the COP26 seemed appropriate, as they are the ones who negotiated at the COP26. Thus, they are the policy makers that the IPCC targets with its reports, hence the relevance of gathering their insights in order to examine the use of the IPCC reports during the COP26 negotiation process. In order to select the respondents, a sample of individuals from a document listing the delegates who registered for the conference ahead of the COP26, were contacted. A total of 50 LinkedIn messages and 60 emails were sent, from which ten individuals agreed to be interviewed. The respondents all gave their consent to be quoted anonymously in this paper. Individuals from different country delegations and with different backgrounds were

selected through convenience sampling, in order to ensure that the respondents would possess diverging characteristics, so as to enable comparisons across relevant groups. In terms of the negotiating blocks to which they belonged, two were from a Least Developed Country (LDC), four from the European Union (EU) and four from the Alliance of Small Island States (AOSIS). With regards to their background, three were on the expert team, while seven were on the political team of a national delegation. This distinction between expert teams and political teams stems from the separation that exists within national delegations. On the one hand, there is the expert team, which consists of scientists from various disciplines and deals with the technical aspects of climate change, such as climatology and meteorology. On the other hand, there is the political team, which is made of diplomats dealing with the political aspect of climate change, namely the political negotiations with other delegations. Further, the number of COPs attended by the respondents ranged between one and eight times. Individuals from the list were contacted via LinkedIn messages, as well as emails. An overview of respondents' characteristics is provided in *Table 2*.

**Table 2: Respondents' Characteristics**

	1	2	3	4	5	6	7	8	9	10
<b>Negotiating block</b>	LDC	EU	AOSIS	EU	AOSIS	EU	AOSIS	LDC	AOSIS	EU
<b>Background</b>	Policy	Policy	Policy	Science	Policy	Policy	Policy	Science	Science	Policy
<b>Experience</b>	2	5	3	3	7	1	8	3	5	1

The interviews followed a common protocol, with the aim of understanding the dynamics of the COP26 negotiation process, and the role of the IPCC reports, as well as other factors, in this process. The interview was divided into three parts, covering the preparation ahead of the COP26, the negotiation process itself, and was concluded by a reflection on the IPCC reports. In all three parts, the respondents were asked open questions, thus allowing for extensive insights on the COP26 and the experience of the respondent to be gathered. This method of data collection allowed me to gain different perspectives on how the IPCC reports were used in the negotiation process.

After the interviews were conducted, they were transcribed, translated when necessary, and coded using the coding scheme described previously (c.f. *Appendix 2*). For the first code, the use of the IPCC reports by the respondent was determined as present, absent, or in between. For the second and fourth codes, the presence or absence of each of the models and factors was determined based on the respondents' insights. For the third code, the perceived usability of



each respondent was determined as high, average, or low based on their insights. Further, the respondents' characteristics that seemed relevant were included in the code. The first characteristic was the negotiating block the country of the respondent was part of, which was either the LDC, the AOSIS or the EU. This characteristic is relevant, as those three blocks negotiate with one voice at the COPs on a lot of the agenda items. The position of the countries regarding climate action being quite similar within each of these blocks, trends emerged in the data based on this geographical characteristic. The second characteristic is the background of the respondent, namely policy or science. This accounts for whether the respondent was part of the policy team or of the scientific expert team. This characteristic is relevant, as the use of the reports differs within country delegations. The third characteristic was the experience of the respondent, coded in the number of COPs the respondent has attended. This accounts for possible respondent bias. Following the coding process, relevant quotes from each of the respondents were assigned to each subcode (c.f. *Appendix 3*). For example, for the subcode "political model", a presence was recorded when the insights provided by the respondent hinted towards the use of the IPCC reports as a political tool. For instance, the statement "I think you pick whatever the point you are trying to make at the time is" is in line with the political model of knowledge use.

### **3.5 Reliability and Validity**

In order for this study to be relevant practically and theoretically, a certain level of reliability and validity needs to be achieved in the methodology. In several ways, the design of the present study was made to ensure this. First, for the findings to be reliable, they must be consistent (6 & Bellamy, 2011). This means that the answers of two similar respondents to the same question should be the same. In this view, the data collected during the interviews appears to be reliable, as respondents with similar characteristics (i.e., negotiating block, experience, function) answered the interview questions in comparable ways. Further, for a case study to be valid internally, the findings must be accurate and truthful representations of reality (6 & Bellamy, 2011). This study has a high internal validity, as the case study design allows for the collection of detailed data on a topic, thus enhancing the accuracy of the findings (Blatter & Haverland, 2012). The interview questions and the order in which they were asked were designed in a way to ensure the internal validity of the findings. This means that the first questions of the interview were very broad, so as to ensure that the respondent's answer was not biased by the phrasing of the question. As an example, the respondents were first asked to describe their preparation

ahead of the COP26, without any mention of the IPCC reports. This allowed to observe if they would mention the IPCC reports themselves or if they would only talk about them when asked specifically about it later. This approach allowed for the data collected to accurately depict reality, thereby ensuring the internal validity of the findings.

## **Chapter 4: Results**

In the first part of this chapter, the structure of the COP26 will be briefly explained, which will facilitate the understanding of the remaining of this chapter. Following this, the four expectations outlined in *Chapter 2* will be explored based on the respondents' insights. More precisely, the analysis will address the extent to which the IPCC reports were used during the COP26 negotiation process, the ways in which they were used, the reports' usability, as well as the alternative factors influencing the COP26 negotiation process.

### **4.1 Background Information about the COP26**

In this subsection, the structure of the COP will be briefly outlined, in order to provide background information necessary to understand the results of the present study. The COP26 stretched over 12 days, during which three types of meetings were held: plenary meetings, closed meetings, and special meetings (United Nations Framework Convention on Climate Change, 2021). First, plenary meetings took place, where Member States discuss the issues under the various agenda items. These ranged from climate finance issues to adaptation, as well as loss and damage. These sessions were the ones where decisions were made, and consensus was reached on the various agenda items discussed. Thus, it was during these sessions that political considerations were brought forward. Second, closed meetings were held, which consisted of meetings among negotiating groups, as well as meetings of small groups of Member States. Third, special meetings and events were organized both by the UNFCCC Secretariat and by third parties, such as NGOs. As an example, the IPCC held events where its latest reports were presented. These events did not lead to any decision, but instead served a more informational purpose, due to their science-based nature (United Nations Framework Convention on Climate Change, 2021). Besides the types of meetings taking place during the COP, another crucial aspect in understanding the workings of the COP is the party groupings. During the COPs, States often negotiate as part of their negotiating blocks (United Nations Framework Convention on Climate Change, 2022a). These blocks, such as the AOSIS, the EU, and the LDCs, among others, overlap to some extent, meaning that many States are part of several negotiating blocks at the same time. These groups serve to simplify the process of negotiating, by having States negotiate in a block, instead of individually. However, States only negotiate as a group on issues where all the Member States of the group can agree on a common position. This means that sometimes they negotiate as a State and sometimes as a group, depending on the agenda item under discussion (United Nations Framework Convention on

Climate Change, 2022a). The existence of these negotiating blocks means that ahead of the negotiations, States not only prepare their national positions, but there are also preparations happening at negotiating block level, where common positions are agreed on.

## **4.2 The Use of the IPCC Reports in the COP26 Negotiation Process**

The first expectation is that the IPCC reports were only used to a limited extent during the negotiations. The data collected during the interviews sheds light on the extent to which the IPCC reports have been used in the COP26 negotiation process. In order to analyze this phenomenon in a more precise manner, the analysis considers two distinct phases in the COP26 negotiation process, namely the preparations ahead of the COP26 and the COP26 negotiations themselves. This study finds that the IPCC reports were used to a small extent overall, with disparities across negotiating blocks, as well as between expert teams and political teams. Overall, the use of the IPCC reports prevailed in delegations of AOSIS and within the political teams of national delegations.

### **4.2.1 The Preparations Ahead of the COP26**

When it came to the preparation of the various national delegations ahead of the COP26, all respondents reported a separation between their expert team and their political team. The expert team of the delegation would be responsible for the technical and scientific aspects, while the political team would deal with the political negotiations. As such, when it came to a delegation's preparation ahead of the COP26, two parallel preparation processes occurred at the same time. Overall, the IPCC reports were used to a small extent during the preparations ahead of the COP26. More precisely, most delegates from the policy side appear to have used the IPCC reports to a small extent, or not at all. One characteristic that all the respondents with low scores shared was their position, as they were all related to policy. Conversely, among the five respondents who scored high, three of them had positions related to science. More specifically, when asked about their use of the IPCC reports in the preparation of their delegation, one respondent shared that "it varies a lot depending on whether you ask our expert part of the delegation or the political part of the delegation". She went on, stating that "when the report of the first working group came out in August, we looked at it, but not in that much detail, because that's what happens at expert level". Similarly, another respondent shared that, "when the working group one report came out, it was a big topic, at least on our expert level". These statements show the significant divide that prevails between the expert part of

delegations and the political one. While they do have preparatory meetings together, as they share a common strategy, they have separated roles during the COP26. The political part of the delegation was concerned with logistical and political matters. As an example, one respondent stated that “our preparations were mostly logistical ones”. As a result, these delegates made little use of the IPCC reports, and only briefly consulted the documents. On the other hand, the expert part of the delegation, which consisted of scientists, was relying heavily on the IPCC reports in their preparations. For instance, one respondent said that “before we go to COP, we go through the latest IPCC reports and pull out what is important to us, what we need to make sure we mention, and we try our best to get that in the actual final text”. In a similar vein, another respondent shared that, “especially for mitigation issues, we were following closely what was beginning to start with the IPCC”. These statements show the extensive use of the IPCC reports in the preparation of expert teams, as they contain scientific evidence to back up their positions. Another finding emerging from the data was that, when respondents said that they did not use the IPCC reports much in their preparations at national level, some of them stated that the IPCC reports were used more on a regional level. As an example, a respondent shared that, “for AOSIS, the reports of the IPCC are very important in coming up with their positions”. This statement shows that, while the reports are used to a small extent by the national delegations, they are used by regional organizations, such as AOSIS, in developing a shared goal for all its Member States. A similar statement was made with regards to EU preparatory meetings: “at EU level, the IPCC reports were discussed more in-depth, and there was also a EU position on the working group one report”. These statements show that, while the IPCC reports were not used much by political teams at a national level, they were used more at negotiating block level. As such, the IPCC reports seem to have played a large role in the preparation of expert teams, but not in that of political teams.

#### **4.2.2 The COP26 Negotiations**

Further, regarding the extent of the use of the IPCC reports in the COP26 negotiations themselves, similar findings to the preparation process were found. The two respondents who scored low possessed similar characteristics in that they both were on the political team of a EU country’s delegation and were at a COP for the first time in 2021. It is possible that their lack of seniority in their delegation played a role since, compared to senior delegates, they appeared to be more honest and less diplomatic in answering the interview questions. As such, one of them stated that “when the science was not on the agenda item that was being negotiated,

it was not much referred to”. The other respondent also stated that the use of the IPCC reports “depends a lot on the kind of negotiation”. This shows that, similar to the phenomenon observed with regards to the preparation phase, a clear divide exists, not only in the preparatory phase, but also during the COP26 negotiations. As such, as one respondent revealed, “there are expert negotiations, that are really detailed and scientific”, where the IPCC reports are used to a large extent, which is not the case in the political negotiations. On the same note, the other respondent shared that “there were some negotiations related only to science, so there were only science experts present during these negotiations”. This further points to this divide between science and policy, as delegates on political teams did not participate in expert-level negotiations, thereby showing the disconnect between science and policy. Next to these two respondents with low scores, four respondents scored average on this item. While they expressed that the IPCC reports were used during negotiations, they seemed to think that they did not play a large role in the negotiations. For instance, one respondent said that the reports “would be referenced throughout negotiations”. Similarly, it was shared that the IPCC reports are “something where people say, “and also IPCC reports”, but it is not like they tell us this, so we should do that”. This statement shows that, even when the reports are mentioned, they do not constitute the main arguments and are not the reason explaining the decisions made by delegates. The respondent illustrated by stating that, “a delegate would say something like, “we need to focus on adaptation because climate change is already having devastating consequences on our land”, and then he would mention the IPCC reports to make his point stronger”. As a result, even though the IPCC reports are mentioned and referenced throughout negotiations, they are not at the core of the negotiations. Further, the last four respondents, who scored high on this item, were all part of AOSIS countries’ delegations. This can be explained by the critical situation in which island states find themselves due to climate change, which may lead them to adopt positions closely aligned with the findings of the IPCC reports, as reported by several respondents. In fact, among all regional groups, they show the highest level of ambition regarding climate action. For instance, a respondent shared that “the IPCC reports are hugely important, because during negotiations we would always say that the science says that the difference between 1.5 and 2 degrees is existential, and so we need more ambition”. This shows that AOSIS countries’ delegations tend to rely more on IPCC reports than other delegations, as the conclusions of the IPCC reports are in line with what they are advocating for at the COP.

In conclusion, the extent of the use of the IPCC reports during the COP26 negotiation process was largely influenced by the separation that exists between science and policy, both during the preparations and the negotiations. As such, while the IPCC reports played a large

role for expert teams, their role was much less significant for the political teams. This means that the function of the delegate within its delegation, namely its belonging to a political or expert team, determines how much the IPCC reports are used. Besides this, the IPCC reports seem to be used more by AOSIS delegations, compared to other negotiating blocks. This means that the regional group to which a delegation belongs exerts influence over the extent of its use of the IPCC reports. Following from this analysis, the first expectation, namely that the IPCC reports were used to a small extent during the COP26 negotiation process, is partly verified.

### **4.3 Models of Knowledge Use in the COP26 Negotiation Process**

Having investigated the extent to which the IPCC reports were used during the COP26 negotiation process, as well as the possible reasons behind the phenomena observed, the prevailing models of knowledge use will be analyzed. This relates to the second expectation, which was that the IPCC reports were only used in non-linear ways. In order to investigate whether or not this expectation holds, the data collected during the interviews will be analyzed in view of the different models outlined in *Chapter 2*, namely the political, enlightenment, linear, as well as tactical models.

#### **4.3.1 The Political Model**

The prevalence of the political model in the use of the IPCC reports during the COP26 negotiation process was highlighted by six of the respondents' insights, thereby being the most frequently observed way in which the IPCC reports were used during the COP26. In the political model, knowledge is used as political ammunition, and therefore only if it fits preexisting political positions (Weiss, 1979). As such, in this model, knowledge is used selectively by the different actors. This type of knowledge use seems to have prevailed during the COP26, according to six of the respondents. In fact, it was brought forward that the IPCC reports were often mentioned by delegations to back up their political position. For instance, one respondent stated that "the IPCC reports are mainly used to back the cause of what your delegation wants in the final text under each agenda item". Similarly, another respondent said that "the IPCC reports are necessary, because they give us the facts that we need to make our points". Another respondent stated that "you pick whatever the point you are trying to make at the time is, so you find the science that backs up your position". These statements show that the IPCC reports are used by States to back up their political positions. As such, States use the scientific knowledge of the IPCC reports in a selective way, and therefore only when the

scientific evidence fits their political position. This reflects the selectivity of States in choosing which scientific facts from the IPCC reports to bring up during negotiations. This political use of the IPCC reports was observed by respondents from all regional groups, namely the EU, LDC and AOSIS. Interestingly, the IPCC reports played a critical role for AOSIS delegations in the negotiation process; this use was political to some extent. In this regard, a respondent stated that “if an island state says, we need more ambition, because we need to reach 1.5 degrees, they do not say that just because the IPCC reports say that, but they say it because it is in their interest, as their islands would otherwise disappear. So, the IPCC reports are used to support your argument, but it is not something that would change your political position”. This shows that, even in the case of AOSIS delegations that strongly advocate for IPCC reports’ findings to be more included in the decisions of COPs, their position comes more from their experience in their territories than from the IPCC findings. As such, while the IPCC reports are used during negotiations, they seem to come second after political positions and do not change States’ political positions.

#### **4.3.2 The Enlightenment Model**

After the political model, the second most observed way in which the IPCC reports were used during the COP26 negotiation process corresponds to the enlightenment model of knowledge use. In this model, knowledge is used to define policy problems and gain new perspectives on a policy issue. This way of using the IPCC reports was observed by five respondents. They suggested that the IPCC reports served as a general source of information, thereby steering negotiations and political positions in the medium to long-term. For instance, a respondent stated that,

“As the science has gotten more and more confident about the human cause of climate change, we have seen a shift. For loss and damage, pre-Paris, countries were like, we just need to mitigate. And then later they were like it is not good enough, we need to adapt. And then they realized even that is not good enough, we need action to split loss and damage. So, if it was not for the IPCC reports making that very clear, it would be hard to make that shift”.

This statement shows that the IPCC reports are used to make shifts in the long-term in the way that climate action is approached by States. This shift is not observable at a specific point in time after a report has been released, but it is noticeable over a long period of time. Concretely, this means that, after the release of an IPCC report advocating for the need to split loss and



damage, measures, and policies to split loss and damage were not designed in the short-term. However, the idea that loss and damage needs to be split was internalized by negotiators and given some consideration in the following years. In the long-term, this enabled the development of policies designed to split loss and damage. This shows that the report contributed to bringing a new perspective on tackling climate change, by building momentum around a new policy issue, that of loss and damage. In the example described, the reports gave policy makers new perspectives on the kind of climate action that is needed, thereby creating a general shift in the agenda items. As such, the reports have enabled the issue of loss and damage to have a dedicated agenda item and to gain importance in COP negotiations. Similarly, other respondents shared that the IPCC reports served general informational purposes. In this regard, one respondent said that “there was a special event, where the IPCC presented the main facts from the report. It was not negotiating, it was more a discussion, so there was no agreed decision from these discussions. It was more an event where parties can attend, discuss the reports, but nothing comes out of it, it is only for the information”. Another respondent added that “there was a science pavilion, where science-specific discussions took place”. These statements point to the place that the IPCC reports had during the COP26, which was mainly informational. As such, the reports were used to gain new perspectives on certain issues, so that policy makers would be informed about the latest trends related to climate change, so as to influence and rethink their political positions in the long-term.

### **4.3.3 The Linear Model**

The third most prevalent model of knowledge use in the COP26 was the linear model, with four respondents’ insights being in line with that model. In the linear model, knowledge is used directly, and therefore precedes decision making in the policy process. In the case of the COP26, this means that, according to this model, the IPCC reports are used by delegations to form their political positions and base their priorities on the scientific facts. Interestingly, among the four respondents, three of them were part of AOSIS countries’ delegations, while the fourth one was an LDC. This is because AOSIS countries suffer the most from the impacts of climate change and have therefore a high incentive to base their policy decisions on the scientific knowledge of the IPCC reports. As an example, one respondent from AOSIS stated that the IPCC report on 1.5 degrees is “a report that is building the case for why we should keep the limiting to 1.5 degrees, as opposed to 2”. According to this statement, it is not the delegation that first decides to aim for 1.5 degrees and then looks for the scientific evidence to

back this up. On the contrary, it is because of this report and the scientific evidence it contained that the delegation realized that 1.5 degrees is what they want to aim for. This use of the IPCC report was reported for some aspects of the reports, while for other aspects, a political use was observed. As such, in this case, the use of the IPCC reports preceded the formulation of the delegation's policy position. This example is in line with the knowledge-driven approach, as the IPCC report on 1.5 degrees was written to inform policy makers, and not with the aim of addressing a specific policy issue. Nevertheless, other respondents also described a use of the IPCC reports that is in line with the problem-solving approach of the linear model. In fact, a respondent shared that countries have the possibility to request the IPCC to write a special report on a specific issue. In this regard, the respondent said that "if a group of countries is asking for special reports on certain issues, such as mountains or oceans, it is because we have finally understood that scientific evidence is the evidence on which political decisions should be made". This statement shows that, in this case, the IPCC reports are produced to address a specific issue in-depth, brought to its attention by a group of countries. As such, for States advocating for ambitious climate action, the IPCC reports are a basis on which their political decisions are made.

#### **4.3.4 The Tactical Model**

The tactical model of knowledge use was identified in one of the respondents' interviews as a way in which the IPCC reports were used during the COP26. In this model, the substance of the knowledge does not matter, but it is the mere act of using knowledge for decision making that is sought. As such, one respondent stated that, "the detail of the reports does not really matter, other than back the call for urgent action". This statement demonstrates the use of the IPCC reports, where the substance of the reports matters less than the mere mentioning of the report as a justification for calling for a specific course of climate action. This points towards a strategic use of the IPCC reports by delegates during negotiations, regardless of the actual content of the reports. With this use, the reports serve the purpose of enhancing the legitimacy of a certain course of action, by showing stakeholders that scientific evidence has been taken into account in the decision-making process.

In conclusion, the IPCC reports were used in several ways during the COP26 negotiation process. While they were mostly used as prescribed by the political model, meaning as a way for States to back up their preexisting political positions, their use was also largely informative, with their influence becoming visible only in the medium to long term, as posited by the

enlightenment model. Further, for States most impacted by the negative effects of climate change, the reports were also used in a direct way, in line with the linear model of knowledge use. Lastly, in some rare cases, the use of the IPCC reports in negotiations appeared to be purely strategic, with little importance given to their substance, as posited by the tactical model. Thus, the second expectation outlined in *Chapter 2*, which is that the IPCC reports were only used in non-linear ways, does not hold. In fact, while it is true that the IPCC reports were used in non-linear ways, they were also used in linear ways.

#### **4.4 Perceived Usability of the IPCC Reports**

After analyzing the extent and the ways in which the IPCC reports were used during the COP26 negotiation process, this part investigates why the reports were only used to a small extent. For this purpose, the usability of the IPCC reports will be explored. This serves to assess the third expectation, namely that the IPCC reports are highly usable for policy making. Based on the theory outlined in *Chapter 2*, there are two aspects to be considered for scientific knowledge, and therefore the IPCC reports, to be usable for policy making. Firstly, the reports must be co-produced effectively, meaning they must fulfil the criteria of the model of iterativity. Secondly, the scientific evidence contained in the reports must be relevant for policy making, which means that it must have a sufficient threshold of salience, legitimacy, and credibility (Cash et al., 2003). The IPCC reports will be evaluated on these two aspects, through the respondents' perceptions of the reports.

##### **4.4.1 The Co-production of the IPCC Reports**

Overall, respondents were positive about the co-production process of the IPCC reports, as they perceived it as effective. For the IPCC reports to be usable, they must fulfil the criteria of the model of iterativity. In fact, the model of iterativity identifies three necessary components for knowledge to be co-produced effectively, namely interdisciplinarity, interaction between stakeholders, as well as usable science (Lemos & Morehouse, 2005). As explained in *Chapter 2*, the first two criteria of this model are fulfilled in the case of the IPCC reports. In fact, interdisciplinarity is present, as scientists from different disciplines come together during the IPCC process, and work together on producing the reports. Further, during the IPCC process, there is an interaction between stakeholders, namely scientists and policy makers. As part of the IPCC process, delegates review and comment on the draft text of the IPCC reports. Besides this, policy makers are also involved in earlier stages of the reports' production, as special

reports can be produced on the request of States. Regarding the third criterion of the model, namely its need to be usable science and meet the needs of knowledge users, the data collected during the interviews revealed that 80% of the respondents perceive the scientific evidence contained in the IPCC reports as one that meets their knowledge needs for policy making. As an example, one of the respondents stated that, “the IPCC reports are written in a way that can be understood. They are compressed, and heavily consumed, so people really want to check the latest temperature trends, precipitation changes, etc.”. This shows that the IPCC reports meet the needs of the target audience, as the information they contain is relevant and awaited by the different delegations. Resulting, the IPCC reports appear to have been co-produced effectively, according to the respondents.

#### **4.4.2 Relevance of the IPCC Reports for Policy Making**

Beyond the need for the IPCC reports to be co-produced effectively to be usable for policy making, the scientific evidence contained in the reports also needs to be relevant for policy making. More precisely, a certain threshold of salience, legitimacy and credibility must be achieved for the reports to be relevant. As outlined previously, the salience of the IPCC reports is achieved, since the information produced is relevant to policy makers. The legitimacy of the IPCC reports is achieved when policy makers perceive the knowledge production process as fair, in terms of its procedure (Cash et al., 2003). While most of the respondents shared that they perceive the production process as rather fair, one respondent from AOSIS disagreed to some extent. In fact, he stated that, “the IPCC process is not necessarily a Global South friendly process, so our ideas, as well as the scientific theories on our observations, are not adequately recorded a lot in these reports”. This statement shows that delegates from the Global South may perceive the IPCC reports as less legitimate than delegates from other regional groups, due to the perceived procedural unfairness. Further, credibility is achieved when the scientific evidence is trusted by policy makers. As such, the credibility of the IPCC reports appears to be high, as respondents expressed a trusting attitude towards the IPCC. The fact that the reports are discussed and approved by policy makers contributes to enhancing their credibility, as the policy makers play a role in the production process.

Concluding, the IPCC reports appear to be effective tools for policy making, since they are coproduced effectively, and the information they contain is relevant to policy makers. As a result, the data collected points towards a limited use of the IPCC reports during the COP26 negotiation process, despite the high perceived usability of the IPCC reports. This means that

despite the large potential of the reports in driving the COP26 negotiations, the reports remain largely unused. Thus, the third expectation, which is that the IPCC reports are highly usable for policy making, is verified.

#### **4.5 Alternative Factors Influencing the COP26 Negotiation Process**

The limited use of the IPCC reports can be explained by the existence of alternative factors that override the use of the IPCC reports in the COP26 negotiation process. As such, certain factors appear to have played a large role in steering the negotiations. This part will look at the fourth expectation, namely that the IPCC reports are underused due to the overriding political preferences of States, the establishment of leaders, as well as the level of trust between negotiators. Based on the respondents' insights, the most prevalent factors influencing the negotiations are States' political agendas, States' personal experiences, precedence, leadership, subjective assessments, as well as geopolitics. While this overlaps with the factors outlined in the expectation, additional factors emerged from the data collection process.

##### **4.5.1 States' Political Agendas**

The most mentioned factor influencing the COP26 negotiation process was the political agendas of states, which half of the respondents mentioned. According to these respondents, States' political agendas steered the COP26 to a large extent, thereby overriding the use of the IPCC reports during the negotiations. As such, one respondent stated that, "I think the IPCC reports are very important and they should be base for political negotiations, but unfortunately, I do not think it is happening, because there are always some political considerations that come in the way". This statement points towards the significance of States' political agendas in negotiating at the COP26. More precisely, States' situation in terms of demographics and development plays a large role in determining their negotiating position at the COP26. As an example, one respondent from the EU shared that, "it is easy for my country to commit to phasing out coal power because we do not have any anymore. So, it is a different thing to commit to phasing out coal if you do not have it anymore, compared to countries like China and India, who are still planning on expanding coal a lot. So, the negotiations depend a lot on political ideology, financial issues, and development issues". Another respondent brought forward a similar example by stating that, "the most difficult part was that if we are really aiming to reach 1.5 degrees, then the reductions of emissions must be really sped up. So, for example the Kingdom of Saudi Arabia is very critical to this, because their economy is not very

diverse, and is mostly heavily based on fossil fuel production and extraction”. These two examples show that, regardless of the scientific evidence gathered in the IPCC reports, States are often not willing to compromise on their existing economic and political strategies. According to another respondent, this factor often hinders successful negotiations, as “sometimes some parties did not have any arguments at all, they were just stuck in their position and they did not want to move from it, which made it very difficult to negotiate then”.

#### **4.5.2 Delegates’ Personal Experiences**

The second most mentioned factor after States’ political agendas was delegates’ personal experiences. It was reported by three respondents that delegates, especially from the AOSIS negotiating block, often use their personal experiences as arguments to back up their position. As such, one respondent stated that, “personal experience is used by negotiators, especially at more high-level events or large plenaries which everyone listens to. That is when they bring in personal experience and make quite emotive statements”. Another respondent exemplified by sharing that, “the last couple of years, we have been hit consecutively by really bad hurricanes, so that is always one of our sticking points, that it is no longer at our door, but the door is open, the flood is coming in, and so we typically tend to use that real life argument, real life numbers, things that have seriously impacted us over the last few years, which is not scientific theory, it is facts”. These statements show that delegates from countries that are already severely impacted by the negative effects of climate change use their personal experience as an argument to back their call for more ambitious climate action. This is also what another respondent emphasized when he said that “many countries use their experience to call for things at the COP. We say that because we see certain things, we are calling for this. So, the justification is what we are going through right now and we could use our own economic situation to call for certain things”. This statement highlights the significance of this factor during negotiations. As such, regardless of what the IPCC reports contain, the situation in certain countries is an argument itself for stepping up climate action.

#### **4.5.3 Precedence**

The third most mentioned alternative factor that influenced the COP26 negotiation process is precedence. This factor was mentioned by two of the respondents. One respondent shared that, “during the political negotiations, when discussing what should be in the cover decision, then it was more recalling what was agreed before in previous COPs. I think that was the main

argument for the parties”. Similarly, the other respondent stated that, “precedence in what the conventions have set out in previous COPs plays a big guiding role”. These two statements show that States often use preserving the status quo as an argument. As such, the wording used in previous conventions serves as the basis for future negotiations. States having agreed on a certain aspect of the text in the past makes change more difficult, even if the scientific evidence reveals that this aspect should be changed. As such, precedence played a large role in influencing the COP26 negotiation process.

#### **4.5.4 Leadership**

Further, leadership was mentioned as an alternative factor by two of the respondents. With regards to leadership, these two respondents agreed that leadership plays a large role in the COP26 negotiation process, although each of them were referring to different contexts. One respondent shared his impression that the level of ambition of a State impacts its legitimacy to position itself as a leader. In turn, States that position themselves as leaders play a large role in steering the negotiations. With regards to this, he stated that, “as time goes by, I feel that the EU is doing its part of the work, and its voice will be much stronger when discussing this question with the US or China”. This shows that the level of climate action of a State determines how much that State’s arguments will be perceived as legitimate, which will, in turn, determine the leadership position of that State during climate negotiations. While the first respondent argued that States’ leadership during the negotiations played a large role, the second respondent argued that the leadership of the COP, meaning who has the presidency, is a significant factor during the negotiations. As such, he stated that, “the successful COPs have been led by ministries of foreign affairs, because the ministries of environment do not know how to negotiate”. In fact, each COP is led by a different State, which then chooses internally which ministry will be responsible for leading the COP. Resulting, COPs are sometimes led by a ministry of foreign affairs, and other times by a ministry of environment. According to this respondent, this factor plays a significant role in steering the negotiations.

#### **4.5.5 States’ Subjective Assessments**

Further, States’ subjective assessments were mentioned by one respondent to be an important factor that steers the negotiations. As such, he argued that a lot of what is discussed at the COP is a matter of subjective assessment, as opposed to being suggested by scientific evidence. As an example, he stated that, “a lot is also based on our assessment of how we will reach higher

levels of ambition, so part of the negotiations was that we had to decide on common time frames regarding NDCs. It is our assessment that having a Paris moment every five years would be better than every ten years. Now, is a five-year target stronger than a ten-year target? Not necessarily, but based on our assessment, it is. But that is just our assessment, it is not based on any IPCC report”. By this, the respondent means that it is his delegation’s assessment that having an evaluation of the progress of States on their commitments made in the scope of the Paris Agreements, every five years would result in more effective climate action than with a ten-year target. This statement shows that besides the scientific evidence produced by the IPCC, States’ subjective assessments of how to reach certain goals have a significant influence on the COP26 negotiation process.

#### **4.5.6 Geopolitics**

The last alternative factor that was mentioned by one respondent is geopolitics. He argued that geopolitical factors, even unrelated to climate change, play a significant role in the outcomes of the COPs. He further exemplified, stating that, “the war in Ukraine right now is a huge detriment to the general push and ambition that we have had with the Paris Agreements. Because you have these economic sanctions on Russia, and now with the West trying to figure out where exactly they are going to get their energy supply from in the short term, they are throwing away the more medium- and long-term objectives of the Paris Agreements, especially the alignment of their financial flows with the Paris Agreements, which is one of the objectives”. This example shows that conflict issues and other geopolitical factors represent obstacles for States to deliver climate action in line with the findings of the IPCC reports.

Concluding, there is a number of factors influencing the COP26 negotiation process, thereby leading States to use the IPCC reports only to a limited extent. From these factors, States’ political agendas appear to be the most prevalent one in steering the negotiations and hindering the use of the IPCC reports. In this regard, the expectation outlined in *Chapter 2* was that the IPCC reports are underused due to the overriding political preferences of States, the establishment of leaders, as well as the level of trust between negotiators. While the first two factors have been identified in the respondents’ insights, the latter has not been mentioned by any of them. As such, the fourth expectation is only partially verified.



## 4.6 Analysis of Findings

Following the assessment of the four expectations in light of the data collected during the interviews, several interesting findings emerged, which will be discussed in this part. In order to investigate the findings of this study, the assessments of the expectations are briefly summarized in *Table 3* below.

**Table 3: Assessment of the Expectations**

Expectation	Assessment
E1: The IPCC reports, as a source of scientific knowledge, were used to a small extent during the COP26 negotiation process.	Partially verified
E2: The IPCC reports were only used in non-linear ways.	Falsified
E3: The IPCC reports are highly usable for policy making.	Verified
E4: The IPCC reports are underused due to the overriding political preferences of States, the establishment of leaders, as well as the level of trust between negotiators.	Partially verified

Overall, the IPCC reports were used to a small extent, although the extent of their use varies when looking at States from different negotiating blocks. Even at national delegation level, the extent of the use of the reports varies between the political team and the expert team. More precisely, knowledge is used mostly by the scientific experts of national delegations. This study has shown the large divide that exists between science and policy, as the political teams of delegations are very distanced from the scientific aspects of climate change. As such, delegates that are part of political teams tend to use the IPCC reports to a limited extent, or even not at all. As a result, this research pointed to the fact that some factors matter in the degree to which the IPCC reports are used, such as the delegate's function within the delegation and the negotiating block to which it belongs. When looking at the ways in which the IPCC reports were used, the study finds that they were used in both linear and non-linear ways, although the non-linear ways of knowledge use prevailed during the COP26. Here as well, the negotiating block to which the delegation belongs determines to a large extent the way in which the reports were used, when they were indeed used. Specifically, the linear way of using knowledge can be observed mostly by AOSIS delegations. When the IPCC reports were used in non-linear ways, they were mostly used as a political tool, as posited by the political model of knowledge use. Following from this, this study found that the IPCC reports were used to a

limited extent during the COP26 negotiation process. Interestingly, this study also found that despite this, the IPCC reports appear to be usable, according to the criteria of the knowledge usability assessment models. This means that the underuse of the IPCC reports during the COP26 did not stem from internal factors, inherent to the reports themselves, but rather were the result of factors external to the substance of the knowledge found in the IPCC reports. In this view, respondents' insights shed light on several external factors that might explain the limited use of these reports. The most influential factor that undermines the use of the IPCC reports is the political agendas of States. This points to the political nature of international negotiations, even when the issue being negotiated is a highly scientific one, as is the case for climate change. As such, despite the scientific evidence available in the IPCC reports, States seem to rely primarily on following their political priorities, regardless of whether they go against the course of action suggested by the IPCC reports. The fact that there is a divide between science and policy may also contribute to political considerations overriding the use of knowledge. In fact, policy makers are detached from the science of climate change in that they do not use the reports much, but instead focus on the politics of climate change.

## **Chapter 5: Conclusion and Discussion**

### **5.1 Summary of Findings**

The purpose of this research was to explore the extent and ways in which the IPCC reports were used during the COP26 negotiation process, as well as the reasons behind this phenomenon. As such, the research was guided by the following research question: *What was the role of the IPCC's scientific reports in the COP26 negotiation process?*

In order to answer this question, interviews were conducted with negotiators from various countries. Following from these, the findings of this study are fourfold, in line with the four expectations outlined in *Chapter 2*. The first expectation was verified, since the study found that the IPCC reports were only used to a limited extent during the COP26 negotiation process. Further, the second expectation was partly falsified, as it was found that, even though the IPCC reports were largely used in non-linear ways, they were not only used as such. In fact, they were also used in linear ways, especially by delegations from AOSIS. Moreover, the third expectation was verified, as the IPCC reports were perceived as highly usable tools for policy making by the respondents. Lastly, the fourth expectation was only partially verified, as the alternative factors mentioned by respondents were only partly in line with the ones predicted based on existing theories. More precisely, trust was not mentioned by any respondent as a significant factor, while a few other factors that were not included in the expectation were mentioned by some of the respondents.

### **5.2 Theoretical and Practical Relevance**

Whereas previous literature has explored the role of science in national decision-making contexts (Huggel et al., 2015), this study sheds light on the role of science in international negotiations. By doing so, this study provides insights into the reasons why the IPCC reports are used to a limited extent, those reasons being very specific to the complex nature of international negotiations. Thus, the aspect concerning the negotiation among States of this study fills a gap in the knowledge use literature. Taking this perspective on knowledge use has shed light on the large explanatory power that negotiating blocks have on the degree to which knowledge is used, an aspect that had not been explored in detail before. Further, specific to international climate negotiations, this study showed the diverging degree of knowledge use across expert and political teams within a national delegation. Moreover, while literature on the interlinkage between science and policy has focused on external factors driving policy makers away from scientific evidence (Dilling & Lemos, 2011; Helm, 2008), this study has

explored factors inherent to knowledge use by analyzing the way in which knowledge is used. In this regard, the typology of knowledge uses established by Weiss (1979) may not be fully suited to analyze negotiation contexts. While he argues that a consensus on policy goals is required for knowledge to be used in a direct way, knowledge was used directly despite the lack of consensus on policy goals in the case of the COP26. This could be explained by this typology overlooking the case of negotiation contexts.

The findings of this study are relevant practically, as they point to the reasons why the IPCC reports are used to a limited extent. A major issue in the underuse of the IPCC reports during the COP26 is the divide that exists between policy makers and scientific evidence. The clear division within national delegations and the little use that delegates on the policy teams make of the IPCC reports points towards a general disconnect between political actors and science, which contributes to widening the gap between what the IPCC reports purport and the outcomes of negotiations. By showing that the disconnect is one of the root causes of the gap between climate science and policy, delegates can work towards the enhancement of policy makers involvement in scientific issues, as when it comes to climate change, both seem inseparable.

### **5.3 Limitations**

This study encompasses a couple of limitations, largely due to the limited time available to conduct this research, as well as the qualitative nature of the study. Firstly, the validity of the study may be limited due to the qualitative methods employed, and the phenomenon observed. More precisely, it is possible that the interview questions did not fully reveal what they were intended to reveal. As the phenomenon observed, namely the use of the IPCC reports in negotiations, represents a rather abstract concept, it is difficult to measure and compare across respondents. In fact, the use of reports is a highly subjective concept, and whether it is reported as being high or low is very much dependent on the respondent. Secondly, the data collection method chosen also poses a limitation, as data collected during interviews can be biased. In fact, it is possible that some of the respondents wanted to make their country appear in a certain way, therefore not providing truthful answers that accurately describe the reality. A more reliable way to investigate this phenomenon would have been through observation, by observing delegates during preparatory meetings and closed negotiations. This would allow to cross check the data collected during interviews with the discussions observed by the researcher. Thirdly, the selection of respondents constitutes a limitation, as a very small sample

was interviewed, due to time constraints. Besides this, the sample was not exactly representative of the population in terms of negotiating blocks and background. In fact, delegates from the AOSIS and the EU were overrepresented compared to delegates from LDCs. Besides this, most respondents had a policy-related position, whereas scientific experts were underrepresented in the sample.

#### **5.4 Implications for Future Research**

To complement and further the findings of this study, comparative research would be insightful. More precisely, it would be interesting to compare the findings of this case study with other cases, such as other climate negotiations. Similarly, it would be beneficial to conduct this study in other fields of policy, to compare climate negotiations with other types of international, as well as national negotiations by adopting a multi-level perspective. Beyond this, comparing a wider range of negotiating groups on their use of the IPCC reports during the COP26, as there seems to be disparities among negotiating groups, would be insightful. Further, having established the explanatory power that negotiating blocks and delegates' functions have on their use of knowledge, it would be interesting to explore whether there are other characteristics that influence knowledge use, such as the political system of the delegation's State. Lastly, in order to add more depth to the findings of the present study, future research could use participant observation as a method of data collection. This would allow the researcher to observe delegates during their preparatory meetings and during closed negotiations, thereby providing a more truthful account of their use of knowledge.

# Appendices

## Appendix 1: Interview Guide

### *Part 1: Respondent's Characteristics*

- What was your role within your delegation during the negotiations?
- How often did you participate in climate negotiations?

### *Part 2: The Preparations Ahead of the COP26*

- What did the preparations of your delegation ahead of the COP26 look like?
  - o What kind of research did you do?
  - o What were your goals ahead of the negotiations?
  - o What was the position of your country?
  - o What led your country to adopt this position?
- Did you and your delegation use the IPCC reports ahead of the COP26 to prepare for the negotiations?
  - o If yes, how?
  - o If no, why?
  - o Did you use any other source of scientific knowledge? If yes, which one?

### *Part 3: The Negotiation Process*

- What are factors countries used to back up their arguments during the negotiations? Besides scientific knowledge, what do you mostly rely on during the negotiations?
- Do you rely on scientific knowledge a lot to back up your position?
  - o If not, why? How do you back up your position?
- What place did the IPCC reports have in the COP26 negotiations?
  - o Which elements of the IPCC reports were considered when negotiating?
  - o Were there elements that were not used at all?
  - o Were there elements of the reports that were important to you but dismissed by others?

### *Part 4: Reflection on the Assessment Reports*

- Do you think the assessment reports are effective tools for global policy making?
- In your opinion, how could the reports' effectiveness in informing negotiations be improved?

## Appendix 2: Interview Codes

Code/Respondent	1	2	3	4	5	6	7	8	9	10
<b>Use of IPCC reports</b>										
<b>During the preparations</b>	Yes	No	Yes	Yes	No	No	No	Yes	Yes	No
<b>During the negotiations</b>	Avg	Avg	Yes	Avg	Yes	No	Yes	Avg	Yes	No
<b>Models of knowledge use</b>										
<b>Linear model</b>	No	No	Yes	No	Yes	No	Yes	Yes	No	No
<b>Interactive model</b>	No	No	No	No	No	No	No	No	No	No
<b>Political model</b>	Yes	Yes	No	No	No	Yes	Yes	No	Yes	Yes
<b>Tactical model</b>	Yes	No	No	No	No	No	No	No	No	No
<b>Enlightenment model</b>	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
<b>Perceived usability of IPCC reports</b>										
<b>Effective coproduction</b>	Yes	Yes	Avg	Yes	Yes	Yes	Yes	Yes	Avg	Yes
<b>Relevance for policymaking</b>	Yes	Avg	Yes	Yes	Yes	Avg	Yes	Yes	Yes	Yes
<b>Other factors mentioned</b>										
<b>Political agendas</b>	No	No	Yes	Yes	No	Yes	Yes	No	No	Yes
<b>Leadership</b>	No	No	No	Yes	No	No	Yes	No	No	No
<b>Trust</b>	No	No	No	No	No	No	No	No	No	No
<b>Precedence</b>	Yes	No	No	No	No	Yes	No	No	No	No
<b>Subjective assessment</b>	No	Yes	No	No	No	No	No	No	No	No
<b>Geopolitics</b>	No	No	Yes	No	No	No	No	No	No	No
<b>Personal experiences</b>	Yes	No	No	No	Yes	No	No	No	Yes	No
<b>Characteristics</b>										
<b>Negotiating block</b>	LDC	EU	AOSIS	EU	AOSIS	EU	AOSIS	LDC	AOSIS	EU
<b>Background</b>	Policy	Policy	Policy	Science	Policy	Policy	Policy	Science	Science	Policy
<b>Experience</b>	2	5	3	3	7	1	8	3	5	1

### Appendix 3: Interview Codes and Sample of Corresponding Quotes

Codes	Quotes
<b>Extent of the use of the IPCC reports</b>	
During the preparations	“When the report of the first working group came out in August, we looked at it, but not in that much detail, because that’s what happens at expert level.”
During the negotiations	“When the science was not on the agenda item that was being negotiated, it was not much referred to.”
<b>Models of knowledge use</b>	
Linear model	“This is a report that is building the case for why we should keep the limiting to 1.5 degrees, as opposed to 2.”
Political model	“The IPCC reports are mainly used to back the cause of what your delegation wants in the final text under each agenda item.”
Tactical model	“The detail of the reports does not really matter, other than back the call for urgent action.”
Enlightenment model	“For loss and damage, pre-Paris, countries were like, we just need to mitigate. And then later they were like, actually, it is not good enough, we need to adapt. And then they realized, actually, even that is not good enough, we need action to split loss and damage. So, if it was not for the IPCC reports making that very clear, it would be hard to make that shift.”
<b>Perceived usability of the IPCC reports</b>	
Effective co-production	“The IPCC reports are written in a way that can be understood. They are compressed, and heavily consumed, so people really want to check the latest temperature trends, precipitation changes, etc.”
Relevance for policy making	“The IPCC process is not necessarily a Global South friendly process, so our ideas, as well as the scientific theories on our observations, are not adequately recorded a lot in these reports.”



Other factors mentioned	
Political agendas	“I think the IPCC reports are very important and they should be base for political negotiations, but unfortunately, I do not think it is happening, because there are always some political considerations that come in the way.”
Leadership	“As time goes by, I feel that the EU is doing its part of the work, and its voice will be much stronger when discussing this question with the US or China.”
Precedence	“During the political negotiations, when discussing what should be in the cover decision, then it was more recalling what was agreed before in previous COPs.”
Subjective assessment	“A lot is also based on our assessment of how we will reach higher levels of ambition, so part of the negotiations was that we had to decide on common time frames regarding NDCs. It is our assessment that having a Paris moment every five years would be better than every ten years. Now, is a ten-year target stronger than a five-year target? Not necessarily, but based on our assessment, it is. But that is just our assessment, it is not based on any IPCC report.”
Geopolitics	“The war in Ukraine right now is a huge detriment to the general push and ambition that we have had with the Paris Agreements. Because you have these economic sanctions on Russia, and now with the West trying to figure out where exactly they are going to get their energy supply from in the short-term, they are throwing away the more medium- and long-term objectives of the Paris Agreements, especially the alignment of their financial flows with the Paris Agreements, which is one of the objectives.”
Personal experiences	“Many countries use their experience to call for things at the COP. We say that because we see certain things, we are calling for this.”

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