Profiting from or fighting climate change? A case study of the Oil and Gas Climate Initiative

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Abstract

Following recent developments in multilateral cooperation, literature on global climate governance has paid increasing attention to non-state actors. Contributing to this debate, this study focuses on a new group of businesses that aim to combat climate change, the Oil and Gas Climate Initiative (OGCI). Within the context of sustainable development, the OGCI must balance profit-making with protecting the environment. The striking contrast between the OGCI's objectives has inspired a case study approach to it. In the study, a relationship between the organization's actions, structure and context is conceptualized. The complementary theories of liberal environmentalism, climate clubs, and transnational governance are used for the analysis. Statements from OGCI's representatives, as well as OGCI publications were analyzed using the selected theories and thematic coding. The resulting findings point to the organization being constrained by a lack of enabling policies and the need to make profits. This contributes to the academic debate about private climate governance and uncovers future directions for research.

Keywords: climate change; sustainability; liberal environmentalism; climate clubs; climate governance; OGCI; Oil and Gas Climate Initiative; non-state actors; private actors

Word Count: 9740

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1 Introduction

1.1 Introduction

Climate change is a big issue within the fields of development studies and political science. The effects of the changing climate on peoples' livelihoods are a pressing concern. However, the complex system of global climate governance makes it difficult to identify pathways for immediate action. The system is complex because it involves an array of actors who contribute both to the problem and its solution. A dilemma that underpins the activities of these actors is the choice between economic growth and environmental protection. At the cutting edge of this question, there are businesses involved in voluntary environmental programs. The choice between environment and economy is then especially tense for environmental programs such as the Oil and Gas Climate initiative (OGCI), which is the topic of this study. Understanding the choices made by this organization could contribute to solving the climate governance puzzle.

Scholars generally agree that businesses have become increasingly prominent powers in the global governance of climate change (Kuyper, Linner, Schroeder, 2018; Jordan et.al, 2015; Bach, 2019). This phenomenon is something that is being linked to the past disagreements between advocates for the environment and advocates for economic growth (Bernstein, 2002). The disagreements temporarily caused a stalemate in global climate negotiations, and eventually resulted in a compromise where the free market and the environmental protection were combined into the agreeable notion of sustainable development (ibid.). Straying away from a regulatory approach, this set of ideas often favors sovereign states deciding their own development paths, and the environment being approached through voluntary mechanisms that put faith in polluters improving their emissions efficiency by incentive. This allows for economic and environmental goals to coexist, but it also gives increasing responsibility to businesses in the fight against climate change. Because of this, sustainable development, and the broader liberal environmentalism paradigm it is part of (Bernstein, 2002) is still controversial. There is a debate around whether liberal environmentalism's voluntary, incentive and market-based mechanisms are a viable alternative to top-down command and control-style climate regulations.

The governance potential of non-state actors continues to inspire academic debate. While there are doubters of private actors' capacity to solve the climate problem (McLean, 2020), there are also other views. Statements supporting non-state climate governance like "no silver bullet exists to solve the climate change problem, but a 'silver buckshot approach' might work" (referring to the need for a polycentric approach to climate governance) are still relevant to some (Prins and Rayner, 2007, cited in Cole 2015). This brings voluntary environmental programs such as the OGCI into focus. With the nature of the organization becoming more clearly defined since its inception in 2014, its aims of "leading the oil and gas industry towards net zero emissions" (OGCI, 2021b) and desire to "support the Paris Agreement and its aims" (OGCI, 2021i), this organization falls into the field outlined here seamlessly.

1.2 About OGCI

Before studying the OGCI and explaining its selection for this case study, it is useful to know some background information about it. The formation of the OGCI was announced at the United Nations Climate Summit in September 2014. Member companies include Aramco, BP, Chevron, CNPC, Eni, Equinor, Exxon Mobil, Oxy, Petrobras, Repsol, Shell and Total energies. They represent approximately 30% of global oil and gas production (OGCI, 2021i; TED, 2021). This makes the possible potential of this organization significant.

OGCI explicitly supports the Paris agreement, and strives to reduce member companies' emissions (OGCI, 2021i). Their stated strategies for doing so internally are by reducing methane emissions and making their activities less carbon intensive, for example through increasing energy efficiency and through substituting certain parts of their operations with renewables where possible. OGCI is also developing Carbon Capture, Utilization and Storage technology (CCUS), that is supposed to let carbon be captured and stored on a large scale. The OGCI acts by itself at the organizational level, by investing into- and applying greener technologies. It also acts through engagement with stakeholders. (OGCI, 2021j) The key areas of interest for OGCI engagement with stakeholders include carbon capture and storage technologies and methane emissions reductions. The engagement provided tends to include funding and expertise (OGCI, 2021j).

For the discussion that is to follow, it is also useful to be familiar with the OGCI's leadership structure. The organization is "CEO-led". It is structured thusly: the "CEO steering committee" approves public products such as reports and statements, steers the direction of OGCI investments, approves set targets, and approves the plans for allocation of resources within the OGCI. Meanwhile, the "executive committee", made up of representatives of member businesses proposes the above public products, activities, targets, and work plans. Lastly, climate investments are managed by a separate entity: the climate investments board, this board is also made up of representatives of participating businesses (OGCI, 2021i)

1.3 Purpose

This study aims to contribute to the debate on the virtues and shortcomings of private climate change governance. On the one hand, academics such as Bach (2019) and Cole (2015)

suggest that decentralization of climate governance may have potential to address the problem of climate change. On the other hand, even Bach and Cole, and especially other scholars (Bäckstrand et.al, 2017; Wright and Nyberg, 2017; Mc Lean, 2020) find that while the private governance of climate change has potential, it is best when supervised by states, as it could be abused by private actors in pursuit of profit. This is exemplified by statements like: "for multilevel climate governance to succeed, it must at multiple levels of governance address and effectively counter the powerful and perverse influence of the fossil fuels industry" (McLean, 2020, p.42) and "our research reveals an almost inevitable process of converting [climate] concerns into the more familiar and less threatening discourses of profit maximization and shareholder value" (Wright and Nyberg, 2017, p.1634). This could be seen in the context of the capitalist mode of production, where corporations, despite publicly committing to change, are constrained by the "business case" of investing capital mainly in situations where there are clear financial benefits (Sullivan and Gouldson, 2017). A case study of a climate-focused organization whose business models largely rely on the use of fossil fuels could show how effectively a group of businesses could approach climate issues given a lack of strong policy and the constraints of the "business case".

The relevance of this kind of study on this particular organization is that it is an "extreme case" (Robson and McCartan, 2016, p.154). In this context, "extreme" refers to the outstandingly sharp tension between business and environmental imperatives affecting the OGCI. In effect, this inquiry will examine how far a fossil-fuel-selling but climate-focused organization could stray from the "business case". The case study will aim to provide a holistic picture of the organization by using a multidimensional approach. In this approach, the organization's structure, context, and activities will be looked at, and their relationship described. The research questions that address that are presented below.

1.4 Research Questions

The activities of the OGCI will be compared to its structure, to see whether the OGCI is well-suited to succeed in its activities. Next, the findings will be interpreted in light of the organization's operational context. This will be done to see how the context that it operates in enables and constrains the organization's behavior. The outcome of this research will then be summarized in the conclusion. Throughout the analysis, the below three questions will be answered.

- 1. What governance actions does the OGCI attempt?
- 2. Does the OGCI's organizational structure enable it to achieve desired actions?
- **3.** How are the OGCI's structure and activities affected by the organization's context?

1.5 Scope

This case study will rely primarily on publicly accessible data created by the OGCI, about themselves. There is some justification for that: firstly, being founded in 2014 (OGCI, 2015b) the organization is relatively new, so there is a limited amount of research on it available. Secondly, with oil and gas companies being a controversial topic to begin with, it may be more helpful to get data from the source while being as open-minded as possible. Similarly, this study will assess external enablers and constraints for the organization's activities as presented by the organization itself. Understanding the organization's narrative around its operational context is a necessary step to gaining a holistic picture.

To further delimit the study, the focus is set to be the organization itself, excluding the organization's members or partners. This is because different member companies within the organization have differing partners and approaches to climate change mitigation, making the web of connections between 12 member companies and the various initiatives they participate in beyond the reach of this study. Hence, the voluntary environmental program OGCI is studied here in and of itself, to determine how much responsibility could be allocated to initiatives like this one in the fight against climate change.

2 Theoretical Framework

In the study of climate change governance, being aware of the relationship between a case and the broader institutional configuration around it is important. For instance, in an introduction to climate governance experiments, Hoffman (2011) states that to get a full picture of the issue, it is important to know which actors are participating, where they decided to experiment and what the experiments ask participating actors to do (Hoffman, 2011, pp.34-37). In an even more relevant discussion, specifically about corporate responses to climate change, Sullivan and Gouldson (2017, p.423) state: "external pressures, internal governance conditions and corporate actions on climate change interact with and influence each other, and that it is therefore important to analyze these as a dynamic, interactive system rather than analyzing each in isolation". Building on this insight, the theoretical framework presented here studies the issue from three similar angles: the organization's activities, organizational structure, and the organization's context.

While this project puts the organizational structure of the OGCI at the center of the argument, it also contextualizes the organization within the broader climate regime and discusses the actions on climate change that it takes. All three of these analytical angles apply to the same issue: the role of OGCI in the complex system of global climate change governance but focus on different aspects of it. Mirroring an above quote from Sullivan and Gouldson, this framework seeks to include external pressures, internal governance conditions, and corporate actions on climate change, as shown in Figure 1, below. The nature and relevance of the selected theories is explained in the following section.



Figure 1: The need for a multidimensional theoretical framework

2.1 OGCI Governance Activities

To understand what the OGCI does as an organization, it is necessary to know the actual activities that the OGCI is involved in, or the "corporate actions on climate change" of its members. However, having selected only OGCI's own documents and statements as sources, it could be difficult to determine the extent to which OGCI influences others. Hence, for this argument to be valid, rather than looking at the impacts of OGCI activities, it would be more viable to look at what these self-reported activities are.

One way of identifying politically meaningful activities of a voluntary environmental program is through theories on private governance. Using such theories to identify OGCI governance activities (rather than their impact), would be in line with the approach of Nasiritousi (2017). Similarly to Nasiritousi (2017), this paper requires an overview of the governance activities that these companies are engaged in. A justification for this is that "websites generally offer a rich source of information on a company's activities as this is one of the key channels for communicating with policymakers, investors, other stakeholders, and the general public. Thus, although the material on the websites is of varying quality, it generally provides an indication of the level of attention paid by the companies to climate change and provides examples of governance activities" (ibid, p.627).

However, while Nasiritousi (2017) uses a framework of ten specific actions to identify governance activities, the approach here is broader. The selected approach is derived from Andonova et.al (2009). It allows room for identifying new patterns because it is based on a broader typology involving just three types of governance activities. The selected typology from Andonova et.al also concerns private actors such as the OGCI.

Andonova et.al provide a typology of specific governance actions that businesses could take, namely *rule-setting, information sharing,* and *capacity building and implementation.* According to their theory, networks that provide resources (finance, expertise, labor, technology, or monitoring) to enable action are identified as governing through *capacity-building and implementation*. Then, *information sharing* is seen as an act of governance when it is "authoritative and serves to direct", for instance through "norm diffusion, consensus building, or changing practices". Lastly, *rule-setting* is governance when it involves "establishing rules intended to guide and constrain constituents". This could be seen as "a framework for systematically analyzing and documenting the phenomenon of transnational climate governance will simply be applied to see what purpose the actions of the OGCI may have, or what it is trying to achieve.

However, before writing off the OGCI's actions as attempted acts of governance, it is important to understand how the term governance applies to this organization in this study. According to Andonova et.al (2009, p.56), "transnational governance occurs when networks operating in the transnational sphere authoritatively steer constituents towards public goals". This definition could be too narrow, as this study aims to look at OGCI's effects beyond constituents that recognize the OGCI's authority. Because Andonova et.al (2009), specify that the term "authoritatively" is included in their definition only to distinguish between actors that have influence and actors that have stringer control, it may be removed from the definition for the purpose of this study. Hence, a working definition for attempted governance actions could instead be "networks operating in the transnational sphere steering stakeholders towards public goals".

2.2 OGCI Organizational Structure (climate clubs theory)

The theory chosen to approach the structure of this organization is that of climate clubs. Approaching the organization's structure using this theory gives insight into the organization's relationship with its context, and into the organization's structure in relation to its goals. Theory on climate clubs is based on various interpretations of Buchanan's 1965 "An Economic Theory of Clubs". What club theories have in common is the idea that "clubs" are membership groups that produce non-rival, excludable benefits to members. Simultaneously, clubs often produce some public goods, in OGCI's case, the good is attempted climate action. These groups or clubs could be joined by applying and meeting the group's requirements. As a result of club membership, members gain non-zero-sum benefits which non-members can't enjoy. In the case of climate clubs this could involve branding benefits such as a positive reputation for confronting climate change (Prakash and Potoski, 2007). This relates to the OGCI, an organization that was "established to illustrate the important role that the oil and gas industry has played and the efforts it will continue to make in helping address the challenges of climate change" (OGCI, 2015b, p.28).

The club theory in focus for this work is presented in Prakash and Potoski's (2007) "Collective Action through Voluntary Environmental Programs: A Club Theory Perspective". This theory presents a framework and a typology for assessing program design against program effectiveness. Unlike many works on climate clubs, for instance Weischer, Morgan, and Patel (2012), this work puts initiatives involving businesses at the center of analysis. This makes the theory presented in Prakash and Potoski (2007) an acceptable base for this project.

The authors discuss various indicators that can determine the effectiveness of a program/club through its design. They are presented below, grouped together by theme.

Determining whether a program produces positive externalities beyond what is legally required of its members is the first step to determining whether it could be assessed as a climate club according to their theory. This is an important indicator to look at, as it justifies the use of the Prakash and Potoski (2007) theory to analyze the OGCI. Knowing the positive externalities that the OGCI may strive to produce is also useful for further analysis of the organization's actions.

Clubs that require members to produce many positive externalities beyond business-as-usual are said to have stringent standards. Meanwhile, clubs that do not have ambitious requirements are said to have lenient standards. Knowing about a club's standards as described by Prakash and Potoski allows one to estimate the minimum level of action that can be expected from its members.

The Prakash and Potoski framework also lists mechanisms that could prevent "shirking", which is how the authors describe members reaping the (reputational, technological, etc.)

benefits of being part of a climate club while not adhering to its goals and standards. This process of shirking is undesirable for the public and for any climate club. This is because shirking does not have positive effects on the environment, and thereby stains the reputation of a given climate club if discovered. Therefore, Prakash and Potoski list three mechanisms for preventing shirking; their definitions are self-explanatory. The mechanisms are monitoring of program activities by third parties, public disclosure of audit information, and ways of sanctioning shirkers.

Lastly, deducing a club's overall trustworthiness can be approached by looking at "credible commitment". Credible commitment refers to the mechanism that the club has in place for sustaining high standards. For example, for club stakeholders, credible commitment could mean that they should be alerted of any changes to the club policy. This could be done to avoid clubs acquiring reputations for high standards, and then diluting said standards without notice, while keeping the reputation. Studying the credible commitment mechanisms of the OGCI will pave the way towards understanding how effective it is.

What adds credibility to this theory is that elements of it are echoed in other club literature. For instance, Green (2017), also mentions enforcement mechanisms for club rules, the quality of public goods that the clubs produce, and the costs of club membership in her analysis. Concepts similar to those presented in the framework used here.

2.3 The Global Context

2.3.1 Environment and economy debate

Naturally, the OGCI's actions and the institutional structure that shapes them are influenced by external factors. These could be described as various enablers and constraints within the global political economy. For this paper, the enablers and constraints that will be looked at are global climate regulations and the imperatives of the capitalist model. This is because in much of the literature on private governance of climate change, there is a debate about how climate regulations interplay with the need to make profits (Fisher and Freudenburg, 2001; Wright and Nyberg, 2017; Sullivan and Gouldson, 2017; McLean, 2020). For instance, a study by Wright and Nyberg (2017, p.1655), mentions the "problems and the underlying tension between economic growth and its material consequences." Meanwhile, Sullivan and Gouldson (2017) contribute with their aforementioned idea of the "business case", where environmental actions of businesses are constrained by the need to make profits. These authors find the current paradigm in climate change governance to have fundamental issues. Inquiring how the OGCI's nature as an organization is affected by these key features of the current climate regime could shed light on possible future courses of action. However, before discussing the current climate regime, it is worthwhile to define it, also to position the case studied within the broader world order.

2.3.2 Liberal environmentalism

A concept that describes the ground on which climate regulations and profit-seeking interplay is liberal environmentalism. In this paper, the context in which OGCI operates is understood mostly through this concept, as proposed by Bernstein (2002). Liberal environmentalism is covered here because it successfully contextualizes the tension between environment and economy. Much research rightfully aims to make normative conclusions about the practice of combining environmental and economic goals, (Fisher and Freudenburg, 2001), thereby confirming the existence and prominence of this practice. However, few of these works describe the institutional configuration that led to private actors in climate change needing to balance profitability with environmental protection as comprehensively as Bernstein (2002). For instance, Aykut's (2016) comment on private climate governance literature is that the literature tends to see the UN climate regime separately from the arrangements outside. This is not necessarily the case in the all-encompassing picture painted by Bernstein.

The theory on liberal environmentalism describes how institutionalized norms have a key role in how the climate issue is approached today. These norms that create the political-economic world order are said to include international environmental treaties, law, public discourse, and more general "shared conceptions of appropriate behavior or action" (Bernstein, 2002, p.2). An important norm in this situation is state sovereignty. Negotiations on binding, universal climate change regulations have failed because governments have preferred to individually decide whether to pursue economic or environmental objectives (ibid). Bernstein links this norm with the growing popularity of "sustainable development", an idea that unites economic development and environmental protection. Because nation-states could not agree on a single approach, elements of both are combined to foster agreement.

A lack of fundamental changes under sustainable development leaves businesses with having an essential role in the global economy. With competitive businesses being highly valuable to states, businesses increasingly operate within a framework that favors softer approaches. These approaches include incentive- and market-based climate change regulations. Bernstein explains that rather than being regulated directly (i.e., through bans), businesses' emissions are regulated by incentives such as the rewarding of less polluting actors, and the taxing of those who pollute more. Devised in 2002, this theory is still relevant today.

Liberal environmentalism applies to the more recent events in climate governance, and that gives it credibility. Namely, a failure to reach a binding international climate agreement at the 2009 UNFCCC Conference of Parties in Copenhagen is said to have paved the way to the 2015 Paris Agreement (McLean 2020; Aykut, 2016). The Paris Agreement relies on nations individually deciding their levels of commitment to reducing greenhouse gas emissions; in other words, states decide themselves which aspects of sustainable development to prioritize. This resulted in the agreement also relying on increased "orchestration" of non-state actor climate efforts by states. (see Jordan et.al, 2015; Backstrand et.al, 2017; Kuyper, Linner, Schroeder, 2018). Nationally pledged emission reductions did not add up to a sufficiently safe amount, because approaches to sustainability differ. As before, the mixed use of economic and environmental approaches by states leaves an emissions gap that is expected to be filled by voluntary actions of businesses. These ongoing developments have granted increasing responsibility for the climate to non-state actors.

3 Methodology

3.1 Research Design

This study will rely mainly on qualitative data and will be generally theoretical rather than seek to make statistical inferences. Because of this, this study could be said to use a flexible design (Robson and McCartan, pp.147-173, 2016). The case study is the strategy used, as it allows one to explore instances of climate change governance in their real-world context.

Like other flexible designs, this study is prone to having some problems with validity when it comes to *theory, description, and interpretation* (Robson and McCartan, pp.170-173, 2016). For instance, using unmodified theory to analyze the data might leave out important details and simply echo the theory used instead of making new discoveries. As Robson and McCartan (p.170, 2016) put it, "The main threat to providing a valid interpretation is through imposing a framework or meaning on what is happening rather than this occurring or emerging from what you learn during your involvement with the setting." This is in part addressed by applying a carefully selected theoretical framework based on three theories rather than one, and a combination of both broad and carefully defined criteria for selecting the data, as will be shown in the following sections. This problem is also approached by being cautious about selected theories throughout the research process, with some discussion of their relevance to the case in section 4.4.

3.2 Data Collection

The data that will be analyzed include the 2021 OGCI reporting framework, where data reporting mechanisms are explained. 2021 and 2015 progress reports that include information about the OGCI's commitments are another source. A third source is the OGCI's website which contains some basic facts about the organization among other things. The final textual sources are a series of "position papers" on certain low-carbon solutions where the OGCI states their official stances on them, as well as other documents from the website listed in the bibliography.

Four transcriptions of conversations and speeches made by OGCI representatives (the only ones discovered during the timeframe of this project) are used as sources as well. A TED talk with Björn Otto Svendrup, a chair of the OGCI executive committee is used, a panel discussion at citizens energy congress with Bob Dudley, a member of the CEO steering committee of the OGCI is included as well, together with two other interviews with these organization representatives. These sources are expected to complement the textual sources with additional information.

A potential problem with these sources of data is that they do not all have the same level of reliability (Sadler, 1981, pp.27-30, cited in Robson and McCartan, 2016, p.462). For instance, data from interviews might be less comprehensive than data from pamphlets and reports. However, it should be noted that the TED speech chosen as a source has been fact-checked, while the panel discussion at citizens energy congress used as a source includes a senior vice president of the Environmental Defense Fund critical and knowledgeable about OGCI activities. Lastly, this data reliability problem will also be tackled by ensuring that the other spoken sources are only referenced when backed up by other sources of information. Given the lack of research on the topic of the OGCI and the lack of other sources of data online, coupled with 13 failed attempts at getting interview questions answered, to the author's best knowledge, the selected sources are the only ones available.

3.3 Data Analysis

The method for analyzing the data will be thematic coding. Information relating to the organization's organizational structure, its governance activities, and comments on the organization's external influences will be the focus of this analysis. Thematic coding analysis is a useful tool for processing large amounts of qualitative data (Robson and McCartan, p.470). Because the material selected for this project is of such nature, it was a straightforward choice. While it has been an option to take an inductive approach to this data using grounded theory, this was decided against. Being inspired by the rich literature surrounding this topic, and with there being pre-existing frameworks for analyzing this case, a deductive, theory-guided approach was chosen instead.

There are in fact a few limitations to using thematic coding. These stem from the deficiencies of the human as an analyst (Sadler, 1981, pp.27-30, cited in Robson and McCartan, 2016, p.462). For instance, there is a possibility of there being missing or lacking information on some topics that will consequently get less attention in the analysis (ibid). This is an issue that was supposed to be tackled through a method of data triangulation or member checking (Robson and McCartan, 2016, p.479) where the findings from the coding were compared with responses from interviews. Unfortunately, the 12 OGCI member companies and the OGCI itself failed to respond in the given timeframe.

What somewhat justifies the analysis in light of limitations is that part of it concerns features of the organization's structure that are undeniable and apply to the whole organization even if discovered only once in the text. Nevertheless, a possibility of weighing certain activities as more or less important than they actually are present, and any findings should be compared with data if it becomes available.

Another possible issue with coding is a lack of transparency regarding the method of analysis (Robson and McCartan, 2016, p.470). This may lead to a skewed presentation of the case. Here, this will be addressed by defining the concepts that will be coded and explaining the coding protocol.

3.3.1 Governance activities coding

Codes related to Andonova et.al's typology related to rule-setting, information sharing, and capacity building and implementation will be searched for in the material. The codes will be limited to those that fit Andonova's definitions of information sharing, capacity building and implementation and rule-setting provided in section 2.1. This will be done to identify moments where the organization is attempting to influence other actors in the climate governance regime through its own actions. The purpose of making these codes will be primarily to understand what the organization is trying to achieve, rather than to assess the success of these efforts. After identifying these acts of governance, these acts will be grouped together according to their purposes and discussed.

A strength of this typology is the breadth of the three selected criteria – this gives flexibility in terms of what could be found. However, a related limitation is that combined with such a large dataset and the deficiency of just one researcher as an analyst, *data overload* is highly possible (Sadler, 1981, pp.27-30, cited in Robson and McCartan, 2016, p.462). As a result, some important details may be missed. The technique for tackling this will be reading through the dataset two or more times while coding for these governance activities. With assistance from other researchers not requested in time, and interview requests not replied to by OGCI members, this technique may be the best fit.

3.3.2 Climate clubs coding

Within the material, segments related to the structure of the organization will be highlighted. These could include six key indicators inspired by Prakash and Potoski (2007) from the theoretical framework. While some of these indicators are narrowly defined, the first two are deliberately interpretable. The indicators are listed below.

Identifying the OGCI as a voluntary environmental program

- Positive externalities produced by the club (what they produce beyond legal minimum)
- Requirements for club membership

Sanctioning of Shirkers

- Third-party monitoring of records
- Public disclosure of audit information
- Sanctioning of shirkers

Maintaining organization standards

• Credible commitment

3.3.3 Context coding

Lastly, to understand the organization's perception of its operational context, codes related to key issues from the debate about private governance: the need to make profits versus regulations will be looked for. To facilitate this, Steven Bernstein's (2002) paper will serve as a guideline for selecting the data. This paper describes how institutionalized norms have played a key role in how the climate issue is approached today. These norms that create the economic world order are said to include a broad range of phenomena, namely: international environmental treaties, law, public discourse, and more general "shared conceptions of appropriate behavior or action" (Bernstein, 2002). While norms related to profit-making and regulations remains a somewhat broad topic, gathering data on this from a large dataset and categorizing it into themes could clarify the picture, as made convenient by thematic coding.

4 Analysis

4.1 Governance Activities

In Table 1 below, there are examples of the governance activities and focus areas of the OGCI that were dedicated much space to in the studied material:

	Type of action	ccus	NCS	Methane	Gas	Renewable s	Carbon Price	Climate change
Implementatio n and Capacity Building	execute expertise capability Implemen t scale capital invest accelerat e facilitate optimize efficiency	working closely with government s to develop national CCS strategies and to identify suitable storage reservoirs in the right locations (OGCI, 2015b) provide: technical and business expertise in CCUS developmen t (OGCI, 2019)	OGCI is studying the use of artificial intelligence, satellites and other technologie s meant to increase accessibilit y to data and generate more robust MRV tools. (OGCI, 2021b) (MRV= measuring the storage capacity of a carbon sink)	satellite acquisition program monitoring different countries, to see methane leaks (TED, 2021) reducing flaring (OGCI, 2015b) developing drone s and censoring (E.I Forum, 2021)	investment in natural gas (OGCI, 2021a) gas released between drilling and production is captured and used (OGCI, 2015b) ensuring that natural gas has significantly lower life cycle emissions than other fossil fuels (OGCI, 2021a)	spent a total of US\$7.4 billion on low carbon technologie s in 2020, with just over 70% spent on renewable energy (OGCI, 2021c) large investments in renewables, such as solar and wind. (OGCI, 2021b)		
Information - sharing	Aim, target, promote, support, recognize , talk, engage, share experienc e publish reports, establish guidelines	CCUS Hub platform identifies emission sources, storage options, and potentially viable hubs in 56 countries (OGCI, 2021b)	OGCI is establishing guidelines on how oil and gas firms can preserve and restore natural carbon sinks (OGCI, 2021b)	developing best practices to industry initiatives, methane guiding principles (Energy Intelligence Forum, 2021) target- setting (OGCI, 2021c)	BG Group teamed up with Imperial College Londo n to create the Sustainable Gas Institute, which aims to answer research questions on how to optimize natural gas in an emissions- constrained energy mix (OGCI, 2015b)		OGCI supports carbon valuation mechanism s (OGCI, 2021d) Position Paper on Carbon Pricing (OGCI, 2021g)	express collective support for an effective global climate agreemen t (OGCI, 2015a). shared ambition to bring own emissions to net- zero within the Paris Agreemen t time frame (Ted, 2021) recognize the importanc e of the climate challenge ⁻ (OGCI, 2015b)

Table 1: governance actions of OGCI by theme

To respond to the question of **"What governance actions does the OGCI attempt?"**, it could be said that it mainly engages in information-sharing and implementation and capacity-building. The primary areas of focus appear to be promoting CCUS, NCS, reducing methane emissions and promoting natural Gas. The OGCI is engaging in implementation and capacity-building by investing in infrastructure for these areas, increasing efficiency through technology, and collaborating with governments and other stakeholders by providing expertise. The OGCI engages in information-sharing in these areas by disseminating expert information, building consensus around guidelines and targets, doing and publicizing research. Some other areas of focus are OGCI building consensus around the goals of the Paris Agreement, publishing position papers requesting better carbon pricing mechanisms, and investing in renewables and alternative fuels. It could be seen that rather than working towards a phase-out of fossil fuels, many solutions seek to retain fossil fuels but make them better. This will be discussed in more detail below.

The presented areas of focus present a clear picture of the organization's concrete activities. The activities involve pursuing many technological solutions to addressing climate change. As evidenced by statements within the material, these are areas where the organization can leverage its strengths. Namely, OGCI members have structural power in having expertise and resources to continuously increase the effectiveness of oil and gas infrastructure and implement large-scale technological solutions that maximize its efficiency. Furthermore, the fact that fossil fuels make up a large part of the current energy mix suggests that OGCI members hope to have a say in how to fight climate change by virtue of being such big players. Below are some statements that exemplify these observations:

"We've got to create a sustainable energy transition and we need to have the oil and gas industry at the table. There's no question besides the scale, the capital, the engineering talent, and being able to do big cross border projects is part of its history" (Citizens Energy Congress, 2021)

"They can deliver scale. They have execution capacity, and they have a global presence. Why they've been reluctant to bring them on board is of course, they are invested into they are economically profiting from the existing energy system. But the flip side of course, is that all of us for now is reliant on that [meaning fossil fuels]" (Energy Intelligence Forum, 2021)

These findings point to the OGCI having an interest in determining the global energy status quo, or governing climate change. There are strong governance efforts in popularizing CCUS by collaborating with governments, policymakers, and emitters, while providing expertise through the "Global CCUS Hub Platform". Furthermore, there are efforts to provide an enabling policy environment for it through advocacy for carbon pricing, as evidenced by the organization's vocal support for these mechanisms in the Position Paper on Mechanisms to Value Carbon (OGCI, 2021d).

The satellite acquisition program for methane and the related methane guiding principles, as well as action to prevent gas flaring and strong emphasis on rethinking the role of natural gas are also examples of the OGCI playing on its strengths of technology and capital. Methane is a more potent greenhouse gas than CO2 in the short term. This means significant reductions

in greenhouse gas emissions from production of oil and gas can be achieved by addressing methane, with potential first-mover benefits for instance through the satellite acquisition program. A trifecta of focusing on gas flaring, replacing coal with gas, and using gas as a backup fuel for intermittent sources of renewable energy (Citizens Energy Congress, 2021; OGCI 2015a, 2015b) also suggests action based on improvements in infrastructure based on technology and capital.

Nevertheless, rather than assuming that governance takes a lead over target-setting and internal emissions reductions, this argument seeks to highlight the role of targets and governance initiatives in complementing each other. The very means by which the organization seeks to approach its targets include the governance activities it participates in, as mentioned in a TED talk by Björn Otto Svendrup:

"How are we going to [decarbonize in line with the Paris Agreement]? Eliminating methane emissions, slashing flaring, electrifying operations. In a bit longer, distant future, we will need to use hydrogen in our own operations, carbon capture and storage and other solutions" (TED, 2021)

This approach hints that rather than challenging the predominant business model, the organization is aiming for its infrastructure to be so developed, that its activities could continue without overhauls. While this works towards reducing scope 1 and 2 emissions, as stated by OGCI, this does not prevent larger scope 3 emissions from the consumption of fossil fuels. The organization is aware of that, but rightfully defends their position:

"I think the industry has a role to play, but we cannot have responsibility for [scope 3 emissions]. So, you need to address the supply side but also you need to address the demand side. And the more successful you are creating lasting shifts on the demand side, the more you would see that you know, oil and gas production go down" (Energy Intelligence Forum, 2021)

This situation could in part be caused by the "business case", as stopping or replacing oil and gas production goes against their economic imperatives. This will be discussed alongside the OGCI's context in section 6.3. Meanwhile, the institutional structure of the organization, or how effectively it can accomplish the above activities will be discussed.

4.2 Organizational Structure (climate clubs theory)

4.2.1 Identifying the OGCI as a voluntary environmental program

Determining whether a program is intended to produce positive externalities beyond what is legally required of its members is the first step to determining whether it could be assessed as a climate club according to theory. The OGCI has some goals when it comes to producing

positive externalities. Some key identified areas are listed in one quote from the 2021 progress report:

"OGCI is now working to turn our strategic ambition into actions that deliver results. We are focusing on areas where we can leverage our strengths – detecting and eliminating methane emissions, scaling up deployment of carbon capture, utilization and storage (CCUS), encouraging the development of low carbon hydrogen and other low carbon fuels, and improving energy efficiency." (OGCI, 2021b)

This is done through the investment in- and popularization of- the listed technologies, as well as others. The OGCI also appears to set targets on methane and carbon intensity, as well as flaring. They also reached some of their targets, with approval from the European Commission and the Environmental Defense Fund (OGCI, 2021b). Additionally, data from the 2015 progress report revealed that six member companies invested 17% of their total R&D budgets on "low-greenhouse gas technology research" (OGCI, 2015b). This could in fact be seen as a production of positive social externalities beyond the legally required minimum. On the other hand, some of the OGCI's efforts have a controversial side: some of the carbon retrieved in OGCI-supported CCUS projects will be used again for oil extraction rather than stored (OGCI, 2015b). Reducing gas flaring also implies that captured gas will likely be captured, sold and used rather than disposed of. In sum, while the extent of the positive externalities is debatable, it should be noted that efforts are made, and OGCI could indeed be analyzed as a climate club.

4.2.2 Requirements for club membership

While there are positive externalities and extra costs that the club members are encouraged to produce and pay, they are not required to do so. This can be inferred from there not being a stringent requirement for measuring and reporting emissions data, as demonstrated in the quotes below. Hence, the club could be said to have lenient standards when it comes to membership requirements.

All OGCI companies have internal routines for the gathering, quantification, and reporting of emissions data, though the data coverage and granularity may vary from company to company (OGCI, 2021h, p.14).

While all OGCI member companies have contributed to the development of this report, the views or positions it contains may not fully reflect the views of a particular OGCI member company. Similarly, this report does not cover all relevant activities of OGCI member companies; nor do all member companies participate in all of the activities described (OGCI, 2021b, p.31).

This also has implications for the club's capacity to reach targets: for many of the statistics presented in the OGCI's reports, the number of members that contributed to them varies. Some statistics presented in the OGCI progress reports apply to six members, some to eight, some to all, while some are collected from individual members, with variants in between

these options (OGCI, 2015b; OGCI, 2021b). Furthermore, the names of the companies contributing to these statistics are not disclosed in the report. As a result, it may look that the OGCI is working as a group, when in fact, members are working at individual paces, selectively. This has been addressed in an interview comment by Bob Dudley, member of the CEO steering committee: "We don't come down to the lowest common denominator — firms are working at different paces" (Argus media, 2021). The chairman appears to be correct, as there does not appear to be a standard for the lowest possible contribution to the climate effort, each member company chooses that individually.

4.2.3 Mechanisms for preventing shirking

According to Prakash and Potoski (2007), third party monitoring is when "firms are required by the program sponsor to have their policies audited by accredited, external auditors". Within the OGCI institutional structure, there is one mechanism for ensuring some degree of third-party monitoring. In the 2021 reporting framework and 2021 performance data, it is stated that an independent third-party, EY & Associés, checks whether the members' data have been reviewed. In the 2020 performance data, one can see the following text:

"Percentage of OGCI indicators considered as reviewed by an external third party and covered by EY limited assurance statement" (followed by percentages) (OGCI, 2021c, p.8)

And a statement from EY:

"An indicator is considered as "reviewed" if it is published in a publicly available document and if it is covered by an opinion or conclusion statement provided by an external third party or is reported to a governmental authority and available for public review." (OGCI, 2021c, p.8)

EY considered on average 70,6 percent of the data on selected indicators to be reviewed. However, EY's 2020 statement covers only 8 out of 12 member companies, with the information on which exact member companies were checked unavailable (OGCI, 2021c). Following the check on whether the data was reviewed, the 8 companies with reviewed data went through a verification of their data's compliance with the OGCI reporting framework. This was also undertaken by the EY. What the EY revealed was that on average 50.7% of the data from member companies to the OGCI reporting framework sufficiently, which is enough to be awarded a "limited assurance statement".

The above statement from EY mentions that for data to be granted "limited assurance" by the EY, it must be published in a publicly available document *and* reviewed by a third-party or reported to a government authority and made available for public review. From this wording, it can be deduced that the result of such a review does not have to be publicly disclosed. In effect, OGCI members do not have to *publicly disclose audit information*, as deemed important by Prakash and Potoski (2007). This makes identifying shirkers less straightforward.

The previous assumption of it being challenging to identify shirkers within the OGCI is furthered by the writing in a diagram presented in the 2021 OGCI reporting framework. There, it is clearly stated that individual data provided by the companies is anonymized and

aggregated before reaching the OGCI and other audiences (as shown in Figure 2). This limits the capacity of the organization for *public disclosure of audit information* and *sanctioning of shirkers* further.

Secretariat	Member companies	
 Build OGCI Reporting Framework based on industry standards 		2 Assess OGCI Reporting Framework
		Provide the template for data collection
	4 Provide their own data	
		 Review the companies' data (consistency checks, interviews and process review, gap analysis with 3rd party verification)
		5 Detailed review: 3 rd party verification 6 for 8 companies
		6 Anonymize individual data provided by companies
7 Calculate OCGI KPIs based on the anonymized data		
		8 Roview OGCI KPIs
		9 Issue the limited assurance statement
10 Publish on the website and the limited assuran	ncluding OGCI KPIs nce statement	

Figure 1: Data consolidation and review process - Source: OGCI

Figure 2: the data review process (OGCI, 2021h)

As can be seen from the above process of verifying, anonymizing, and aggregating the data, there is no means of identifying members that do not review their data or do not comply with the OGCI guidelines. This implies that there is no way for OGCI stakeholders to sanction shirkers. Hence, it could be said that the OGCI is inefficient at addressing shirking.

4.2.4 Credible commitment

Regarding the club's ability to commit to goals officially and maintain standards, there appear to be key credible commitment mechanisms missing. The lack of credible commitment mechanisms goes as far as the club stating that it is not obligated to publicly notify of any changes to its commitments. This means that the commitments have little credibility. The evidence is presented below: "This document contains certain forward-looking statements – that is, statements related to future, not past events and circumstances – which may relate to the ambitions, aims, targets, plans and objectives of OGCI and/or its member companies. These use expressions such as "accelerate", "advance", "aim", "ambition", "commit", "expect", "plans", "strive", "target" and "will" or similar expressions intended to identify such forward-looking statements. (...) Actual results or outcomes may differ from those expressed in such statements, depending on a variety of factors. OGCI does not undertake to publicly update or revise these forward-looking statements, even if experience or future changes make it clear that the projected performance, conditions, or events expressed or implied therein will not be realized." (OGCI 2021b, p.31)

4.2.5 Organizational structure: summary

These findings show that the OGCI has lenient standards and partial mechanisms for collection- and third-party monitoring of data. Additionally, it has not achieved strong mechanisms for sanctioning of shirkers and public disclosure of audit information. Furthermore, its commitments are subject to undisclosed changes, reducing its potential standing amongst stakeholders. According to a typology in Prakash and Potoski (2007) OGCI can thus be labeled as a "weak-sword club", meaning that the structure allows for individuals to produce low positive social externalities, due to a lack of enforcement mechanisms. As a result, this climate club is expected to produce marginal branding benefits to its members. To answer the question of **"Does OGCI's structure enable it to achieve desired actions?"** it could be said that the structure does not support systematic action and in fact allows for shirking, making the club structure inefficient for carrying out goals. To understand why a club representing so much wealth may be unable to enforce stricter guidelines, be more effective, or chose a non-technological approach to the climate issue, these findings should be explored within their context, as in the next section.

4.3 The Context

4.3.1 Lack of regulations

Organizing the codes related to context into themes showed that the organization is concerned about the regulatory vacuum in which it operates. Large-scale investments into low-carbon technology appear to pay off more when backed up by policy. For instance, as stated in the 2015 progress report, using CCUS adds an additional 1/3 cost to the production of electricity

in a gas plant (OGCI, 2015b). Hence, taking a technological approach to climate change does not create the necessary profit incentive without enabling policy such as effective carbon pricing. In fact, recently an OGCI representative stated a main dissatisfaction with the Glasgow pact to be the looseness of the pact's language (Argus media, 2021). This lack of clear direction could explain the organization's previously noted attempts at governance.

The OGCI's concerns about the lack of policy are mentioned as early as 2015 in their progress report, where their desired outcome for COP21 was said to be "an effective framework within which we can act further and with greater confidence" (OGCI, 2015b). Furthermore, in a letter sent to the UNFCCC before the COP, members of the organization requested stronger policy frameworks again: "For us to do more, we need governments across the world to provide us with clear, stable, long-term, ambitious policy frameworks" (BG, BP, Eni, Shell, Statoil and Total, 2015).

This position is stated again in their 2021 Position Paper on CCUS:

"Governments should be clear in assigning roles and responsibilities to the appropriate competent authorities in the development of Government policies, incentives, and regulatory frameworks. Doing so transparently and predictably in the context of a roadmap could provide the much-needed conditions for reducing uncertainties and de-risking major capital investments" (OGCI, 2021g, p.3)

The issue also reappears in a September 2021 "OGCI Strategy" document:

"In addition to collaborating and investing together with industry, it is essential for governments to develop enabling policies and regulations to provide certainty for long-term, large-scale profitable investments needed to reduce emissions." (OGCI, 2021a, p.4)

4.3.2 Responses to price signals and the "business case"

Additionally, thematic coding has shown that the organization is highly aware of the constraints of the "business case". As OGCI Chairman Bob Dudley said:

"I don't see the pressure broadly yet on that. The industry. One thing the industry does is it responds very quickly, rapidly to price signals. (...) It's just when the cycle goes down, and they're pretty sure it's not going to come back up. Then you'll see dramatic changes" (Citizens Energy Congress, 2021)

An example of these responses to price signals is that the Oil and Gas industry reduced its emissions during the COVID-19 pandemic because demand for fuels came down. When the demand went back up, so did emissions (Citizens Energy Congress, 2021) Without necessary regulations, emissions are tied to demand.

The organization being constrained by price signals is a topic that recurs in both the 2015 progress report, but also in conversations with OGCI representatives. When asked about the strengths of the Glasgow Pact, OGCI CEO Steering Committee member Bob Dudley responded:

"An emphasis on a value for carbon. Unless something has a price or a value, you don't change behaviors." (Argus media, 2021)

Scaling up ambition, Björn Otto Svendrup in a conversation at the Energy Intelligence Forum mentioned the need for a broad economic transformation:

"What are the dialogues we need in order to have a profound discussion not only around the change in the energy system, but also you know, a broad economic transformation." (Energy Intelligence Forum, 2021)

This need makes sense in the context of the global energy mix and multiple mentions of the world economy's structural reliance on fossil fuels. As stated in the TED talk with Björn Otto Svendrup:

"Even if some of you would like these companies to just disappear, what they are doing matters to all of us every day. Changing the energy system is going to be hard. We need to turn from an 80 percent fossil-fuel-based system to a completely zero-emission system. That would require massive investments, radical policy shift and us changing behavior." (Ted, 2021)

4.3.3 Context: summary

To answer the question of "**How are the OGCI's structure and activities affected by the organization's context?**" it could be said that the world is reliant on fossil fuels, and with a lack of price signals to incite changes, there are strong economic incentives for the oil and gas industry to carry on. Without strong policy that dictates the rules by which this industry is to proceed, large investments into the environment could end up unprofitable. This is especially true when there is demand and there are markets for this energy. In the sense of not being compelled to forego profits on behalf of good will, the oil and gas companies in this organization are constrained by the "business case". Hence, rather than phasing out fossil fuels, the organization aims to improve them. Also, in an uncertain policy environment, even improving fossil fuel efficiency, building emissions-mitigation infrastructure, and supporting certain approaches to climate issues has an uncertain outcome. This could explain the lack of desire from member companies to sacrifice their agency and capital for creating a more effective organizational structure.

4.4 Findings

The findings on governance actions revealed that OGCI supports technological solutions to climate change that either add efficiency to their operations or could work well with carbon pricing mechanisms, such as CCUS, NCS. Furthermore, diversification into areas such as renewables, new fuels and a changing role of gas is also present in certain companies. This

corresponds to a study of a few of the OGCI member firms by Green et.al (2021) who mention that while these activities do happen, their sporadic and proportionately low-cost nature is a sign of *hedging*. Here, hedging means mitigating risk through diversification rather than overhauling their predominant business model. The findings presented here also show that this is a viable strategy given uncertainty about future regulations.

This paper has analyzed the OGCI using Prakash and Potoski's (2007) framework for voluntary economic programs. This framework has shown that the organization produces minimal positive externalities, has lenient standards, is ineffective at sanctioning shirkers, and does not have a credible commitment mechanism. This means that it could be expected to produce only marginal branding benefits and have little effect on the environment. However, it is not to say that branding benefits are not there. For instance, Green et.al (2021) find that the OGCI member company BP is politically pro-environment but lagging in terms of their actions. However, in the OGCI's reports, the lagging could not be seen. One reason for this is the lack of mechanisms for identifying shirkers. The invisibility of any specific member's mishaps due to anonymization of data and selective reporting of statistics may be sufficient to win an unscrupulous consumer's interest.

Despite some possible branding benefits, the organization appears to be more focused on popularizing, implementing, and institutionalizing certain technologies and approaches to climate change, rather than maintaining a good reputation with stakeholders. Otherwise, the OGCI may have implemented more stringent reporting standards. Hence, it is argued here that the club good that the club seeks to produce is shared institutions for the oil and gas industry. The exclusivity of such benefits to OGCI members is debatable, beyond the benefit of being prepared first-movers. The produced amount of positive social externalities is also uncertain, given that OGCI's strategy implies that the usage of fossil fuels is reinforced and continued. Green (2017) conceptualizes this kind of behavior as that of a *pseudo-club*, meaning that the positive social externalities produced, and the exclusivity of member benefits are debatable. The club in this work strays from Prakash and Potoski (2007) clubs that surely produce positive externalities and exclusive benefits for their members - OGCI is more of a gray area better referred to as a pseudo-club.

Some scholars, including Green's (2017) work on pseudo-clubs, argue that such clubs are best when their efforts are supported by policymakers. This work adds to this view. The findings show that this organization is lacking enabling institutions. For instance, the OGCI requires strongly worded international agreements, large-scale, efficient carbon regulations that could enable CCUS, and a predictable environment to make large-scale green investments in. Without these institutions, their actions are constrained by their role as businesses. This harkens back to the organization's lack of power to enforce even the compliance of its members.

5 Conclusion

This study supports the view that industry could and does play a role in climate governance, but that these efforts will only realize their full potential when backed by strong policy. The statements of the studied organization support this point of view. The case study showed that when profit-making relies solely on the production of a polluting good, concerns for the environment will not win over economic priorities. This paints the notion of sustainable development and the context of liberal environmentalism as a true compromise, rather than a cohesive idea. Regardless of the aesthetics of the sustainability reports, the organization's structure, activities, and context point to explicit tension between environment and economy.

The OGCI's actions can be understood better in their context. With a dominant role of fossil fuels in the energy mix, it is not cost-effective to stop or overhaul traditional business models. Hence, a technological approach that improves fossil fuels but does not stop them has been chosen. This approach is combined with elements of *hedging*, or diversifying operations as a safeguard against uncertainty (Green et.al, 2021). Given uncertainty about the future of global climate regulations, this can be understood.

The OGCI's structure appears to be constrained by the context as well. Decision-making power will not be given up to fully commit to climate action with an uncertain outcome. As a result, the organization has an inefficient structure. This is expected, because large-scale institutional arrangements needed to ensure a stable, enabling environment for reducing emissions through technology are said to lack. These arguments support the view that governments have a critical role in complementing industry action, and ideally settling whether environment or economy takes the lead in sustainable development.

There are possible ideas for future research that could develop this discussion, for instance in multilateral cooperation. Which actors are powerful enough to shape and enforce these rules that the OGCI is requesting? How can a stronger agreement regarding the priorities of sustainable development be reached? Which actors can legitimately contribute to the making of these decisions? While terms such as "government", "policymaker" and "state" were black boxed in the findings of this study, it remains important to understand who these actors are, and which of them interact with organizations such as OGCI. To combine these points, a viable next step is determining which decision-making bodies interact with the OGCI, and to what effect. Continuing researching the OGCI may be fruitful, as it embodies the cutting edge between environment and economy.

6 References

- Andonova, L., Betsill, M. and Bulkeley, H., 2009. Transnational Climate Governance. *Global Environmental Politics*, 9(2), pp.52-73.
- Argusmedia.com. 2021. *Q&A: OGCI seeks more involvement in policy making*. [online] Available at: https://www.argusmedia.com/en/news/2282618-qa-ogci-seeks-more-involvement-in-policy-making> [Accessed 21 May 2022].
- Aykut, S., 2016. Taking a wider view on climate governance: moving beyond the 'iceberg,' the 'elephant,' and the 'forest'. *WIREs Climate Change*, 7(3), pp.318-328.
- Bach, M., 2019. The oil and gas sector: from climate laggard to climate leader?. *Environmental Politics*, 28(1), pp.87-103.
- Bernstein, S., 2002. Liberal Environmentalism and Global Environmental Governance. *Global Environmental Politics*, 2(3), pp.1-16.
- BG, BP, Eni, Shell, Statoil, Total, 2015. Letter to UNFCCC. [letter].
- Bäckstrand, K., Kuyper, J., Linnér, B. and Lövbrand, E., 2017. Non-state actors in global climate governance: from Copenhagen to Paris and beyond. *Environmental Politics*, 26(4), pp.561-579.
- Citizens Energy Congress, 2021. *Strategic Panel Session: The Future Energy Mix*. [video] Available at: https://www.youtube.com/watch?v=dnd-NRMGuco [Accessed 21 May 2022].
- Cole, D., 2015. Advantages of a polycentric approach to climate change policy. *Nature Climate Change*, 5(2), pp.114-118.
- Energy Intelligence Forum, 2021. *IN CONVERSATION WITH BJØRN OTTO SVERDRUP*. [video] Available at: https://www.energyintelligenceforum.com/2021/video [Accessed 21 May 2022].
- Fisher, D. and Freudenburg, W., 2001. Ecological Modernization and Its Critics: Assessing the Past and Looking Toward the Future. *Society and Natural Resources*, 14(8), pp.701-709.
- Green, J., 2015. The strength of weakness: pseudo-clubs in the climate regime. *Climatic Change*, 144(1), pp.41-52.
- Green, J., Hadden, J., Hale, T. and Mahdavi, P., 2020. Transition, Hedge, or Resist? Understanding Political and Economic Behavior toward Decarbonization in the Oil and Gas Industry. *SSRN Electronic Journal*,.

- Hoffmann, M., 2011. *Climate governance at the crossroads*. New York: Oxford University Press.
- Jordan, A., Huitema, D., Hildén, M., van Asselt, H., Rayner, T., Schoenefeld, J., Tosun, J., Forster, J. and Boasson, E., 2015. Emergence of polycentric climate governance and its future prospects. *Nature Climate Change*, 5(11), pp.977-982.
- Kuyper, J., Linnér, B. and Schroeder, H., 2017. Non-state actors in hybrid global climate governance: justice, legitimacy, and effectiveness in a post-Paris era. *WIREs Climate Change*, 9(1).
- McLean, J., 2020. Rethinking the Role of Nonstate Actors in International Climate Governance. *Loyola University Chicago International Law Review*, 16(1).
- Nasiritousi, N., 2017. Fossil fuel emitters and climate change: unpacking the governance activities of large oil and gas companies. *Environmental Politics*, 26(4), pp.621-647.
- Nasiritousi, N., Hjerpe, M. and Linnér, B., 2016. The roles of non-state actors in climate change governance: understanding agency through governance profiles. *International Environmental Agreements: Politics, Law and Economics*, 16(1), pp.109-126.
- OGCI, (2015a). Joint Collaborative Declaration.
- OGCI, (2015b). More energy, lower emissions. OGCI Progress Reports.
- OGCI, 2019. Joint declaration on accelerating the CCUS industry.
- OGCI, (2021a). OGCI Strategy.
- OGCI, (2021b). Accelerating Ambition & Action. OGCI Progress Reports.
- OGCI, (2021c). OGCI Performance Data 2020. Performance Data.
- OGCI, (2021d). OGCI position on mechanisms to value carbon. OGCI Position Papers.
- OGCI, (2021e). OGCI Position on Natural Climate Solutions. OGCI Position Papers.
- OGCI, (2021f). *OGCI position on policies to reduce methane emissions*. OGCI Position Papers.
- OGCI, (2021g). OGCI Position on policies to scale up carbon capture, use and storage (CCUS). OGCI Position Papers.
- OGCI, (2021h). Oil & Gas Climate Initiative Reporting Framework v3.5.
- OGCI. (2022i). *About OGCI*. [online] Available at: <https://www.ogci.com/about-us/#how-we-work> [Accessed 21 May 2022].
- OGCI. (2022j). OGCI Action & Engagement. [online] Available at: https://www.ogci.com/action-and-engagement/#priority-focus> [Accessed 21 May 2022].
- Prakash, A. and Potoski, M., 2007. Collective Action through Voluntary Environmental Programs: A Club Theory Perspective. *Policy Studies Journal*, 35(4), pp.773-792.

Robson, C. and McCartan, K., 2016. Real world research.

- Sullivan, R. and Gouldson, A., 2016. The Governance of Corporate Responses to Climate Change: An International Comparison. *Business Strategy and the Environment*, 26(4), pp.413-425.
- TED, 2021. *How to realistically decarbonize the oil and gas industry*. [image] Available at: https://www.ted.com/talks/bjorn_otto_sverdrup_how_to_realistically_decarbonize_the_oil_and_gas_industry [Accessed 21 May 2022].
- Weischer, L., Morgan, J. and Patel, M., 2012. Climate Clubs: Can Small Groups of Countries make a Big Difference in Addressing Climate Change?. *Review of European Community* & amp; International Environmental Law, 21(3), pp.177-192.
- Wright, C. and Nyberg, D., 2017. An Inconvenient Truth: How Organizations Translate Climate Change into Business as Usual. *Academy of Management Journal*, 60(5), pp.1633-1661.