

ORCHESTRATING SDG POLICY

Assessing the use of orchestration as a governance mode to affect Sustainable Development Goal policy change.



Supervisor: Dr. Rakhyun Kim
Utrecht University

Second Reader: Dr. Frank Biermann
Utrecht University

Student-id, email and credits

Rory O'Brien, 5599261, r.c.obrien@students.uu.nl, 30 ECTS

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Acronyms

ACF: Advocacy Coalition Framework
GCRF: Global Challenges Research Fund
MDGs: Millennium Development Goals
NERC: National Environment Research Council
NGO: Non-Governmental Organisation
SDGs: Sustainable Development Goals
UNEP-WCMC: UN Environment World Conservation Monitoring Centre

Abstract

The Sustainable Development Goals (SDGs) were finalised and adopted in 2015 to point a new direction for sustainable development and build on the earlier Millennium Development Goals (MDGs). This presented an opportunity for input from multiple stakeholders such as non-state actors to the SDG process. Many believed that international organisations had become ineffectual and lacking the necessary authority to effectively influence. The purpose of this research was to examine the process and the impact of an indirect mode of governance, called *orchestration on policy change*. Successful orchestration requires three key sectors: namely, an orchestrator, an intermediary and a target actor.

The identified orchestrator was the UNEP- World Conservation Monitoring Centre (WCMC) and the target actor was the policies of the Global Challenges Research Fund (GCRF) in their funding of the 17 Sustainable Development Goals. In this study, two intermediaries were involved: the National Environment Research Council (NERC) and the Rockefeller Foundation. Orchestration had been identified as a method to improve their influence.

This orchestration was specifically focused on the GCRF, which in 2016 was the recipient of £1.5 billion from the British government to fund overseas aid over five years. Orchestration was carried out through the construction of a report highlighting urgent SDG related areas where funding was required. The report facilitated links between academics, international development practitioners, beneficiaries and users to encourage partnerships between researchers from different disciplines.

To gauge the effect on policy change, a framework called Advocacy Coalition Framework (ACF) was used. The conditions for the formation of this framework are the collaboration of actors who seek to alter a common policy goal. This project views the actors participating in orchestration as a coalition working towards a common policy goal. Using the ACF model, the dynamic and external conditions were focused to gauge policy change. Orchestration served to highlight the complex nature of the SDGs and the intractable challenges brought on by inevitable interactions. Change was observed in all conditions, with the greatest effect in the *learning* condition. The UNEP-WCMC provided the ideational support, and the intermediaries fed the report into the decision-making arenas of the GCRF. The orchestration served to enlighten the GCRF on how to shape their future SDG direction and pinpointed the focus areas, which the GCRF in turn have redirected significant research funding towards these areas. The research has demonstrated the effectiveness of orchestration in affecting policy when favourable conditions are in place.

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1. Introduction

1.1 Background

“Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987, p. 16).

The words above defined a course for the understanding of sustainable development. These defining sentences are found in a report published in 1987 by the United Nations under the title *Our Common Future*. The report more commonly known as ‘The Brundtland Report’ named after a former Norwegian Prime Minister who was heavily involved in its conception brought sustainable development clearly into focus. The core of the report called for the realisation of more socially inclusive and environmentally sustainable economic growth. At this time the earth faced many challenges due to the increasing threat of climate change and the increasing pressure placed on its resources from rising global populations. By the 1990’s, sustainable development was being viewed as a “typically modern idea of progress” (Mitcham, 1995). With a growing understanding of the concept and more importantly the challenges posed; approaches to deal with those challenges were created.

The first meaningful attempt at global goal setting was the Millennium Development Goals (MDGs). The MDGs were viewed as an “historic global mobilisation to achieve a set of important social priorities worldwide” (Rey & Sachs, 2012, p. 2206). Yet, these goals were not without their flaws and have been criticized for their uneven nature (Fehling; Nelson & Vehkatapuram (2013). Much of the MDG focus was attached to the developing world. Sustainable Development is a concept that is continually evolving; therefore the methods to meet its challenges must evolve with it.

Nearly thirty years after ‘The Brundtland report; Our Common Future’, a new course towards Sustainable Development was laid out. In 2015 in Rio de Janeiro, Brazil, countries around the globe agreed upon the adoption of set of goals. *The Sustainable Development Goals* (SDGs) were created to steer this course. In total, 17 SDGs were adopted including 169 individual targets directed at development policy across the globe over the next 15 years (Glover & Hernandez, 2016). The 17 goals were intended to be integrated into a follow up of the *Millennium Development Goals*.

Following on from this, the SDGs mark a historic shift for the United Nations towards one sustainable development agenda after a long history of trying to integrate economic and social development with environmental sustainability (Biermann, Kanie, & Kim, 2017). They were created and formed as a template on which the mantle of responsibility was passed to the UN member states. Unlike the hierarchical governance models that had gone before, the SDGs were based upon a non-legal binding set of goals prescribed by the member states themselves (Biermann et al., 2017). The goals varied from an end to poverty, to economic growth and a means to arrest further damage on the planet (UN, 2017). Both in terms of goal setting, and the influence of member states and international organisations, the SDGs were framed holistically. The MDGs were often criticised for having too narrow a focus (Rey &

Sachs, 2012). They were criticised for expressing ends but not the means to meet them (Vandemoortele, 2009).

However, the SDGs were necessitated by the pressing sustainability challenges facing the *entire globe*. Unlike the MDGs, the target setting and admission of goals were open to a *wider range of actors* than before. The MDGs “were not negotiated by governments, nor was input given from stakeholders” (Felix Dodds, David Donoghue, 2016). The SDGs were created differently. A lengthy and complex negotiation process was conducted in order for a positive outcome to emerge. By democratising the selection process of the SDGs, it laid the foundation for *increased participation from other interested stakeholders*; namely international organisations and non-state actors. This presented a new opportunity for outside stakeholders to influence target setting. Due to the high number of specific targets within the SDGs it encouraged other actors to engage into the decision-making arenas. So with a favourable environment installed to influence, *what governance mode can be utilised to affect SDG policy?*

1.2 Problem Definition and Orchestration

Criticism has been labelled at international organisations for being ineffective and for being based around traditional state-based design mechanisms, namely ‘international old governance’ (Abbott & Snidal, 2010). An overreliance on this mechanism has been stated for their ineffectiveness (Abbott & Snidal, 2009b). Through this governance mode, the performance of international organisations has been underwhelming, a cause being that they are too hierarchical and unable to effectively exert their influence. International organisations have *not performed well* in international arenas. They are observed as lacking the necessary nous to promote their agenda through these old networks. From the literature, it is apparent that the influence of international organisations has waned. Thus in order to remain relevant in international spheres, they must adapt their governing techniques.

Orchestration is a governance mode that works indirectly through other actors and organisations (“intermediaries”) and uses soft modes of influence to guide and support their actions (Bernstein, 2015). International organisations require the presence of an intermediary in which to orchestrate through. It is viewed as a non-hierarchical strategy of light coordination (Pattberg, 2010). The theme of orchestration is not a new concept in the realm of sustainable development, yet one that is often overlooked (Hale & Roger, 2014). Orchestration is a tool, which critics have argued is underused by international organisations in the international arena.

However, ‘a window of opportunity’ emerged for international organisations to mobilise their interests and objectives through means of orchestration with the wide scope of the SDGs. In 2015, international organisations found themselves in a stronger position to influence the agenda and target setting than with the MDGs (Rey & Sachs, 2012). International organisations exert their influence through orchestration by finding coherence with intermediaries who are sympathetic to their cause. This research will examine policy changes that the orchestration has specifically brought about.

To successfully orchestrate, international organisations require certain conditions to be present. They also require some autonomy or a mandate from member states in order to operate and must hold an “interest in orchestration and the capacity to coordinate private actors and schemes” (Abbott & Snidal, 2010, p. 324). Ultimately, they operate under the scope of the member states but are allowed certain freedoms.

The target actors are the focus of this indirect governance mode. These actors are often policy makers and governance bodies. An *overlooked* component of the orchestration governance mode is whether the objectives of the orchestrators are compatible with those of the target actors. Does the use of orchestration fall in line with objectives of the target actor? Are the orchestrators objectives unrealistic, or are they over ambitious compared to the capabilities of the actor they are targeting? These factors will be important to consider, as it will aid the assessment of policy change. If there is symmetry between the core belief sets, then one can assume that the likelihood of policy change in line with both parties is likely to increase. The target actor is more likely to be hospitable to the aims of the intermediary and subsequently the orchestrator, if there is alignment. Another aspect that has been overlooked in much of the orchestration literature is the benefits that orchestration can have on the target actor. The target actor has taken on the mantle as the unassuming character, being influenced to meet the objectives and targets of the non-state actors.

Orchestration presents an opportunity for international organisations to gain an important foothold within decision-making arenas. As they lack the authority to enforce change, they require such means to influence. Moreover, the complexity and breadth of the SDGs require input from these organisations. These organisations hold authority in many environmental areas and possess valuable information if afforded the appropriate platform. Orchestration presents an opportunity to raise this platform.

1.3 Objective and Research Question

The objective of this research is to assess how *orchestration has affected the policies of the target actors it focuses on*. The research focused on the actions of the target actor and their subsequent policy decisions. The policy changes implemented by the target actor will be analysed and its link to orchestration examined. The bulwark of literature on orchestration has portrayed this governance mode as a *top-down* issue. An international organisation with particular targets, links with an intermediary actor, which holds similar objectives to pursue changes to a particular actor’s target setting. The general consensus is that this form of ‘soft’ governance is focused on serving international organisations, the non-state actors and the intermediaries. However, what if orchestration served all actors involved with the process? To what extent can orchestration enhance the agenda of the target actor as well as the orchestrator and intermediary? By engaging with a *coalition* of actors both state and non-state, a thorough assessment of changes proposed through orchestration can be made by the target actor. This research project will explore the holistic nature of orchestration and what affect it can have on the policies of the target actor. Through this means of orchestration, international organisations and intermediaries can alleviate pressure and provide assistance in areas that the target actor is unable to carryout.

Orchestration is comprised of three sectors. The first is the *target actor*. In this particular research, The Global Challenges Research Fund (GCRF) will be used as the case study. Second, were the *intermediaries*, who were in contact with both the GCRF and the orchestrator? The role of intermediaries in this case was taken by the Rockefeller Foundation, based in New York and the UK's National Environment Research Council (NERC). Finally, the role of *orchestrator* was taken by the UNEP-WCMC. This organisation was responsible for the construction of the report alongside a research program from the University of Sussex. In line with literature, as an intergovernmental organisation, the UNEP-WCMC is the de-facto orchestrator.

The core of the analysis will focus on the funding changes that can be attributed to influence from non-state actors. These changes and the background to these changes will be analysed. Firstly, to view this perspective from a bottom-up approach, it will be necessary to examine the rationale behind the decisions being made as a result of the orchestration. As noted by many authors who have written on the topic of orchestration, it is an underutilised governance mode. This research will aim to show that the objectives of all participating actors can be achieved when orchestration is used appropriately. It will serve as a template to show the holistic benefits, which this method of 'soft' governance can provide and lead to increase use of the governance mode.

1.3.1 Research question:

In order to address the problem stated above, the following research question has been formulated.

How has orchestration affected the policies of the GCRF?

To sufficiently answer the research question, within the chosen case the presence of orchestration will be first examined. The research will then assess the impact this orchestration has had on the SDG policies by the target actor. It will isolate the changes they occurred pre-intervention and assess the changes that the orchestration solely led to. To fully answer the posed research question, the project will make use of all available sources including data from the GCRF reports. This will be supplemented by an examination of the activities of the GCRF within the Official Development Assistance compliance (ODA). In addition to this document analysis, empirical evidence will be heavily focused on.

2. Theoretical Framework

2.1 Can Orchestration affect change in SDGs?

Often international organisations hold ambitious governance goals but are constrained by their limited governing capacity (Abbott, 2012b). In order to influence transnational governance to fit their goals, international organisations choose to govern through orchestration. The orchestrator does not possess firm control over the intermediary, who enters the arrangement on a voluntary basis. The orchestrator does not dictate or govern; their role is that of a supporter or facilitator (Abbott, 2012a). International organisations utilise this 'soft' power to extend their governing reach. By operating through intermediaries, their support of intermediaries can allow them to exert influence in other areas indirectly.

Genschel and Zangl remark that “the purpose is not to control non-state authority but to leverage it” (2014, p. 349).

Hale and Roger view orchestration as a combination of both horizontal and hierarchical forms of governance (2014). It is this combination, which allows international organisations to shape transnational governance, into part of what Abbott and Snidal has termed the ‘**Transnational New Governance**’ (2010). This process involves a “network of public, private and mixed institutions and norms” that is partially orchestrated through a combination of international organisations and states (Abbott & Snidal, 2010, p. 316). It is this *flexibility* that allows governance through orchestration to be influential without hard, top-down governance.

At the core of the Transnational New Governance is what the authors have termed as ‘regulatory standard setting’ (Abbott & Snidal, 2010). Norms and non-legally binding standards of behaviour are perpetuated by international organisations to not just states but to private actors. Changes are shaped and framed rather than dictated. International organisations are involved in the inclusion of these actors and specify and dictate tasks to them. This is carried out as orchestration, when the orchestrator possesses the necessary organisational culture to see the advantage in engaging with transnational actors (Hale & Roger, 2014). Organisations who are more closely aligned and who possess closer links with other actors are more likely to orchestrate, and, in turn affect change through these means.

Despite their lack of material resources, international organisations possess the ability to exert power as they construct and form the social world in which they operate (Barnett & Finnemore, 1999). They have been observed to operate within transnational networks, which have been noted as fertile ground for effective climate governance (Jordan et al., 2015). This enables orchestration to be an attractive option for international organisations governing sustainable development; an arena that Ostrom claimed has long embraced **polycentrism** (2010). The concept of polycentric governance relates to an organisational structure where multiple independent actors mutually order their relationships under a general system of rules, for example governing common pool resources involves different centres of decision making working independently of each other (Ostrom; Tiebout & Warren, 1961). Bernstein has remarked that orchestration is the ideal governance mode for SDGs as it “requires high-level political leadership but institutional underpinnings that provide limited direct authority over implementing actors and a lack of a material resources” (Bernstein, 2015, p.5).

International organisations like to minimise the level of risk they are exposed to. Henriksen et al. theorise that orchestration, to succeed and affect policy, must embed itself within networks of experts and other actors (Folke Henriksen & Ponte, 2017). They claim this understudied aspect, can increase the effectiveness in affecting policy by being informed about the direction of policy. Through orchestration, international organisations can minimise their governing shortfalls to exert influence and pre-empt situations where risk may occur. Orchestration creates an effective environment with which international organisations can affect change in policy.

2.2 Conditions necessary for orchestration to occur

In order to measure the impact of the orchestration, it is necessary to successfully gauge whether orchestration has occurred within a particular case. Experts are in agreement that for orchestration to occur, an international organisation must be given the necessary *autonomy* to orchestrate (Abbott & Snidal, 2010 & Hale & Roger, 2013). In addition, international organisations by nature are said to enjoy significant *autonomy* due to their perceived expertise or rational legal authority (Barnett & Finnemore, 2004). This autonomy is seen as crucial in order for the international organisations to exercise their significant capabilities. This freedom and level of autonomy lays a pathway for orchestration to occur. This enables international organisations to obtain the necessary room to navigate transnational networks and engage with experts in their area of focus.

Abbott and Snidal have remarked that states grant autonomy to international organisations so that they can achieve member state objectives (1998). Member states can alleviate strain and transaction costs by granting autonomy to these organisations to serve a mutual objective. The degree of autonomy that is provided by member states to international organisations can often be significant. States often provide high levels to international organisations operating within environmental areas and development programmes. This has allowed orchestration to be utilised effectively in climate governance areas (Hale & Roger, 2014); Bernstein, 2015 and Henriksen et al, 2017). It is also seen as a very capable governing tool over the SDGs, with organisations provided with the room to gather data and information in order to meet the targets (Bernstein, 2015).

Hale and Roger maintain that in addition to the autonomy provided to the international organisations, the sub-state and non-state actors involved should share an “interest and a capacity to address the problem” (2014, p.67). Bernstein has termed this “systematic promotion of mutually reinforcing policies that reflect legitimate social purposes” as **coherence** (2014, p.5). *Coherence* is seen as method of working in synergy across inter-institutional, transnational levels to maximise the benefits for all parties involved. Through this means it may provide the mechanisms to negate trade-offs. In order to successfully manoeuvre the coherence between states and other actors, international organisations will engage with other actors and states in order to meet their objectives through ‘**interest alignment**’ (Henriksen et al, 2017). “A conductor of an orchestra needs to make all her musicians work together, public authority needs to align different kinds of instruments – some of which it has some degree of control and influence over, and some of which it can only indirectly shape or facilitate (Henriksen et al, 2017, p.2). An overlap of public and private interests provides the most hospitable environment for orchestration to occur.

In order for orchestration to be carried out and coherence to be established, the presence of *intermediaries* is vital. These middle actors interact with both the orchestrators and target actors. Abbott and Snidal have claimed, “if there isn’t an intermediary, it’s not orchestration” (2012 p. 8). The authors portray a simple pathway for orchestration to occur.



Figure 1: Indirect Governance through Orchestration, adapted from (Abbott and Snidal, 2012)

Yet, other actors see international organisations as being more flexible with this governance mode. Henriksen et al have noted that Orchestrators, “when using soft instruments, may also operate both directly and through intermediaries” (2017, p. 4). They view orchestration as a combination of harder tools with softer instruments. Henriksen et al interpret orchestration as a flexible governance mode and one that can utilise several different tools as they progress in time, a tool being the use of intermediaries (2017). Henriksen et al’s observations can be questioned as it opens the theory to a high degree of interpretation. Viewing orchestration as a combination of methods, is complicated and reduces the ability to effectively measure policy change. It presents a view of orchestration alongside other means of influence. Abbott and Snidal present a clearly pathway to policy change via orchestration, based on figure 1. (2012).

For orchestration to be achieved one actor (orchestrator), employs another actor, (intermediary) to govern towards a single goal or multiple goals shared by both actors (Abbott & Bernstein, 2015). By engaging with an intermediary, the organisation can participate in orchestration. While, by working with an international organisation to achieve a certain objective, intermediaries are fortified by the operational and financial support, which can be utilised from international organisations (Abbott & Bernstein, 2015; Hale & Roger, 2014). Through support through ideational means, international organisations are presented with an opportunity to improve their effectiveness and increase their influence on intermediaries. By sufficiently supporting intermediaries to enable their capabilities, international organisations can increase the likelihood that this will affect policy change.

By gaining the expertise of international organisations it vastly improves the intermediaries’ operational legitimacy in pursuing their shared objectives. Additionally, by placing conditions on their support, international organisations can keep the governance goals of the intermediary in line with that of its own (Hale & Roger, 2014). Yet, the input and steering of intermediaries is said to vary greatly. Stringent conditions may be imposed by the organisation but in other situations support may diffuse allowing little potential to effectively orchestrate (Abbott & Snidal, 2012). The degree of steering imposed on intermediaries can impact the final outcome. Strong support can enhance the orchestration capabilities and in turn, the targets. The scale of the international organisations impacts the influence it can exert. Large organisations, like the World Bank and UNEP possess access to large networks of transnational actors and subsequent contacts to tap into. They are also well known to the public and seen as standard bearers in the eye of the community. This further adds to the legitimacy of their actions. Moreover, this enables them to exert their influence with a degree of credibility that enhances their scope in transnational governance.

2.3 Orchestration in practice

If the necessary conditions are in place for orchestration to occur, it is crucial to conceptualise what orchestration will look like in practice in practice will look like. As discussed above, for orchestration to take place, it requires the presence of intermediaries. The participation of the intermediaries is based on a largely *voluntary* basis, in particular with regard to the SDGs (Bernstein, 2015). Orchestration is only possible when the policy goals of the intermediary align with that of the orchestrator. ‘Soft’ governance is the only mode of governance it can align to, as orchestration lacks the control of hard governance. Bernstein writes that in order for international organisations to work with intermediaries effectively, it should be done through “**leadership, persuasion and incentives**” (2015, p. 5). This research will look to demonstrate the policy change that orchestration can bring, despite the limited control the orchestrators possess. It will view the intermediaries not just as middlemen middlemen between the orchestrators and the target actor, but as facilitators also.

In order to measure orchestration it is important to understand the forms it can exist in. Abbott and Snidal present two forms of orchestration: **Directive** and **Facilitative** (2010). First: Directive orchestration is considered the less common of the two yet more powerful. It appears mostly in the state-led tier and where international organisations possess sufficient legal authority or political clout. Directive is most likely to be found in issues related to member states. Second: Facilitative orchestration is seen to involve *softer mechanisms of support and steering*. The authors recognise this form of orchestration within the private-led tier.

Expanding on Abbott and Snidal, the work of Hale and Roger also develop the concept of orchestration in two directions (2014). They note that it is not just international organisations that participate in orchestration but also states and that the *orchestrator may cease playing an active role*. The authors introduce a “**kind of initiating orchestration**” when an organisation attempts to shape existing initiatives by introducing new actors and bolstering or legitimising schemes (Hale and Roger, p. 64, 2013). Support can be provided to actors by means of financial and technical support (Hale and Roger, 2014). The authors see orchestration as a combination between horizontal and hierarchical modes, falling between “ideal types of transnational governance” (Hale and Roger, p. 64, 2014). Top-down (hierarchical) in that the international organisation is the distinguishing feature, crucially bolstered by their public authority. Yet bottom-up (horizontal) as it unlocks the role of multiple actors to help achieve their collective targets.

In practice, the form of orchestration depends on the tier it is carried out in. What is agreed between all authors is that the orchestrator is the initiating actor, whose role may cease after initiating the process.

2.4 What does policy change look like?

In order to identify the extent of policy change, it is vital that it can be observed. The modus operandi of orchestration is that it is conducted in order to either facilitate change or to limit the impact of change. To change a policy over time or to instigate a new push to allow for the implementation of policy change. Policy change refers to incremental shifts in existing

structures, or new and innovative policies (Bennett & Howlett, 1992). This definition determines that policy change can be a gradual progression or result in the formation of new initiatives responding to external influences. Yet, many different authors have theorised about why this change occurs in the first place. In order to understand how change occurs, it is necessary to unlock the different categories of transnational actors and understand the differing motives and processes occurring within these categories (Nasiritousi, Hjerpe, & Linnér, 2016).

A comprehension of the context in which actors mobilise and look to affect change will aid the identification of the process of policy change, which has been seen as one that is difficult to understand (Bennett & Howlett, 1992). This understanding will aid the process of isolating the cause of change to one process of intervention, **orchestration**.

2.4.1 Do non-state actors have the influence to shape policy change?

Orchestration is based around the influence of international organisations. This influence can both prevent and implement change. Then in order to understand how international organisations affect policy change, it is crucial to understand how non-state actors work. Their political authority is tempered by the autonomy afforded by states. Fioretos has titled what constitutes state change as an “authority migration” to non-state actors (2011. p. 389). These complementary patterns allow organisations the room to affect change. Moreover, due to their access to transnational networks and their cognitive, leverage and material powers, international organisations are perceived as being important in the decision-making process (Nasiritousi et al., 2016). Thus, their ability to affect policy change is significant. This ability has been noted to hold particular leverage in the arena of climate governance, with governments leaning heavily on the input of non-state actors. The understanding of how to govern environmental issues is an ever-evolving process. International organisations are seen as experts in the issues of climate, solidifying the information and assistance they provide (Genschel & Zangl, 2014).

2.5 Transnational Governance

Central to any form of orchestration is its connection with collective action. Other authors have remarked on Ostroms polycentric governance research (Ostrom, 2010). Daniel Cole has added that polycentric governance involves several independent centres of decision-making, which operate at different scales. Thus orchestration is deeply set in this mould. Transnational governance is marked by the involvement of non-state actors (Falkner, 2003). Abbott, has continued that it is the nature of the actors who “create and govern organisations is a major determinant of their goals and capabilities” (Abbott, 2012b). Therefore, the actors who participate both shape and determine the targets. For transnational governance to perform at its optimum, the incentive is to maximise the expertise of all actors. As a result social networks are formed over a wide number of actors.

Transnational governance is marked by decentralisation and fragmentation, as the majority of organisations involved are sculpted from the bottom-up (Abbott, 2012b). However, this fragmentation can lead to increased transaction costs between actors, resulting in

inefficiencies. This fragmentation has led authors to claim that a governance deficit exists (Folke Henriksen & Ponte, 2017). Due to the perceived constraints affecting the performance of transnational governance, orchestration is seen by many experts as possessing the necessary governance tools to correct this deficit. Abbott and Snidal have suggested for the Transnational New Governance mode to achieve its full potential, it will require international organisations and states to increase their participation in orchestration activities (Abbott & Snidal, 2009). This window of opportunity enables a system based around the adoption of norms and belief setting to affect change. The favourable landscape in which orchestration is seen by authors and scholars enhances the effectiveness the governance mode may have on affecting policy change.

2.5.1 Target actor or collaborator?

Whichever theoretical perspective is considered, for orchestration to be initiated there is consensus that influencing the target actor is the ultimate goal (Abbott and Snidal, 2009; 2010; Abbott, 2015; Hale & Roger, 2014; Genschel & Zangl, 2014). Orchestration is seen as a way for organisations to strengthen international regulation and to ultimately improve their own performance. Abbott's theory of orchestration is that international organisations engage with intermediaries to establish coherence in order for the intermediary to influence the target actor. Yet, Abbott does not expand on the coherence between international organisations and target actors. Many critics have questioned international organisations involvement in transnational issues but Biermann and Siebenhüner have noted in their book *Managers of Global Change: The Influence of International Bureaucracies* that "international bureaucracies are more often interested in resolving political problems than increasing their power as such" (2009, p. 8). Thus, the conditions for orchestration to bring about collective action are ripe. The SDGs were brought together as a member led agreement with many of the 17 targets being qualitative, which allows governments to develop their own processes for implementation. This creates a need for consultation and input from non-states actors. Both international organisations and member states acknowledge the need for collective action to ensure SDG targets are reached. (Hale & Roger, 2014 & Bernstein, 2015). The wide nature of the goals requires such collaboration.

2.5.2 How can orchestration by International organisations enhance the Target Actors target setting?

As stated, orchestration is seen as a significant way for international organisations to strengthen international regulation and to then improve their own performance (Abbott & Snidal, 2010). However by being orchestrated, through this governance tool, it may aid the mission of the target actor. Why would this be the case?

Through orchestration, the *initial 'start-up' transaction costs can be reduced*. To mobilise collective action to the scale the SDGs require is challenging. By delegating the responsibility to the international organisation, member states can alleviate much of the strain this action requires. With an agreement as large as the SDGs, target setting is problematic and holistic thinking is required. The multiple SDGs and subsequent targets, mean that finding consensus is challenging given the often competing interests at work (Connelly, 2007; Griggs et al., 2013 & Waage et al., 2015). Therefore, in order to competently structure their policies with SDGs in mind, public and private actors engage with one another.

Member states often lean heavily on the input of non-state actors for their expertise and experiences with the issue. International organisations possess a *strong global authority*, which provides legitimacy to intermediaries to allow governance through orchestration to occur (Abbott & Snidal, 2010). This global authority can be also seen as “bottom-up” because it seeks to unlock the agency of transnational actors to help provide public goods transnationally” (Hale & Roger, 2014). Thus, the international organisations, their connections and access to transnational networks offer a reliable point of reference. Member states are often unable to invest large amounts of energy into transnational issues due to more pressing requirements at the national level. These large organisations are given the freedom to exercise their global authority within these transnational networks. This increases their standing with member states and their credibility to influence. The research will test the following hypothesis.

Hypothesis: International organisations can affect policy change by utilising their networks and capabilities through orchestration.

If we analyse standard setting with a focus on development in developing regions, it is theorised, that if implementation is carried out through international organisations, this may prevent potential conflicts. The *global authority* of organisations eases issues like the jurisdiction of states. The global or regional authority of international organisations, enables them to avoid assertions of extraterritorial rule making by states (Biermann & Pattberg, 2008). They bring the necessary capabilities that member states can often lack, including a degree of independence and a focus on international matters. In addition, they can utilise their networks to negate the impression that strong countries are imposing standards on weaker ones (Hale & Roger, 2014). This statement strengthens the influence of international organisations. Biermann and Pattberg have remarked that this positive working attitude may not stretch to all non-state actors. The authors mentioned above have remarked that often developing countries are wary of NGOs who house their headquarters in developed countries and serve the interest of the global north (2008).

Finally, international organisations bring competencies that individual states lack, particularly broad global representativeness and at least a limited degree of independence from the narrow national economic interests that often dominate state policies. Biermann and Siebenhüner observed, “often international organisations’ policies support the interests of weaker actors against more powerful ones, as well as collective international interests ... as opposed to the particular interests of powerful states” (2009, p. 3). For this reason, the involvement of these organisations can help overcome concerns that strong countries are imposing standards on weaker states.

2.6 How can policy change be measured?

To understand policy change it is necessary to understand the actors involved and how they look to affect change. This will enable an understanding of how the policy change occurs via orchestration. Moreover, a measurement of the policy change is needed and a framework with which to do so. In order to measure the effect of the orchestration on policy change, ***The Advocacy Coalition Framework*** was chosen. This framework was used to suitably link to the chosen case study in this research. The research assessed the actors involved and then

using these requirements sought to establish a theoretical foundation. So, using this focus, this project sought to choose an appropriate tool with which to measure policy change.

The Advocacy Coalition Framework was chosen for several reasons. First, the framework is a highly effective tool to assess policy change. Since the framework's conception in 1988 it has been utilised effectively to measure change. Second, this research views orchestrators and intermediaries as very much a *coalition* of actors working together to ensure a common goal. With this in mind, literature was researched which related to the formation of coalitions and policy change. Elinor Ostrom has provided a framework for the emergence of coalitions, which can be attached to this research case (1990). This is necessary as Schlager has commented that the emergence of co-operation must be explained and not just assumed (Schlager, 1995).

Using the conditions as laid out in Table 1, an assessment was made that the orchestrators in the research case had established a coalition. All of Ostrom's criteria for the emergence of coalitions were identified within the case study. Orchestration is found through common interests and a wish to reduce transaction costs. The number of actors involved in orchestration is low and they will be affected in similar ways to the change they wish to affect. Norms and belief sets are shared in their ambition to alter SDG policy. Finally the coalitions believe that the realisation of SDG targets will be harmed without intervention.

Table 1: Emergence of Coalitions (Ostrom, 1990)

Emergence of Coalitions	
1.	Most individuals 'share a common judgment that they will be harmed if they do not adopt an alternative rule.'
2.	Most individuals 'will be affected in similar ways by the proposed rule changes.'
3.	Most individuals value a continued flow of benefits from the collective good they are providing themselves; 'in other words, they have low discount rates.'
4.	Individuals face 'relatively low information, transformation, and enforcement costs.'
5.	Most individuals 'share generalised norms of reciprocity and trust that can be used as initial social capital.'
6.	The number of individuals involved is 'relatively small and stable.'

This research seeks to demonstrate that orchestration can be seen as a coalition of actors working to influence change. In addition to the criteria that have aided the use of this framework; The Advocacy Coalition Framework (see figure 2) was chosen due to its ability to measure policy change. The framework views the policy process as a competition between a coalitions of actors, who advocate beliefs about policy problems and solutions (Sabatier and Jenkins-Smith 1994, 1999 & Sabatier, 1988). The framework argues that coalitions are formed around a set of policy core beliefs. They wish to realise their goals, which have been constructed by their beliefs. Advocacy coalitions try to make their target actors or government institutions behave in accordance to these beliefs (Kübler, 2001). The model proposed by Sabatier below (Figure. 2), reflects policy change over a decade long period, yet this research proposes the applicability of this framework over a shorter time frame.

Orchestration requires the combination of multiple actors working within a coalition linked by their shared set of core values. The actors within this coalition seek to alter the institutions beliefs and impose their values. Seen below in Figure. 2, is the Advocacy Coalition Framework Flow diagram from Sabatier (2007). The figure shows how coalitions alter policy change and the many networks it encompasses. This research will focus on the external events in the bottom left of the figure. The research will assess the influence of the coalition operating within the policy subsystem and their efforts to affect policy change on the external events.

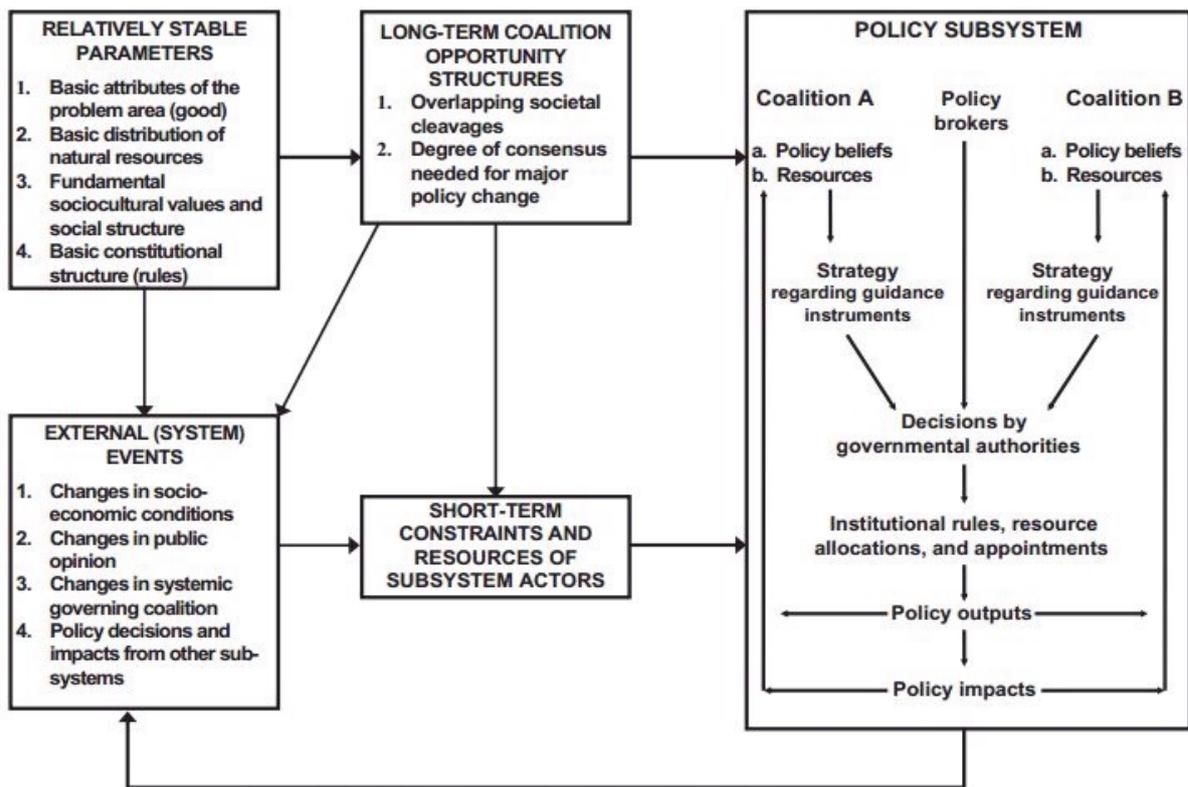


Figure 2: Advocacy Coalition Framework Flow Diagram (Sabatier, 2007)

2.6.1 Forms of Policy Change

To assess policy change, the literature on this topic was heavily researched. In addition to Sabatier as stated previously, other literature was utilised in order to select the appropriate conditions to measure. This case looks at change that occurs over a shorter period. Thus, this research will focus on the **dynamic factors** affecting policy change. These factors happen quicker and pose a challenge to policy makers about how to react to them, given their unexpected nature. The research question that is posed in this research can be distinguished as seeking to identify minor policy change (Sabatier, 1988). An example of dynamic issues are *socio-economic processes and policy-oriented learning* (Cerna, 2013). This research will examine the type of conditions which Weible and Sabatier have termed "**external shocks**" (Weible, Sabatier, & Mcqueen, 2009).

2.7 Theoretical Framework Model

To further the understanding of the process of orchestration and its ability to affect policy change a diagram of the theoretical framework has been developed below (Figure. 3). The flow diagram visualises the process of orchestration and the complex networks the governance mode utilises. In addition it demonstrates how the mode is mobilised in order to affect policy change. The framework demonstrates the indirect nature of the governance mode and the actors involved.

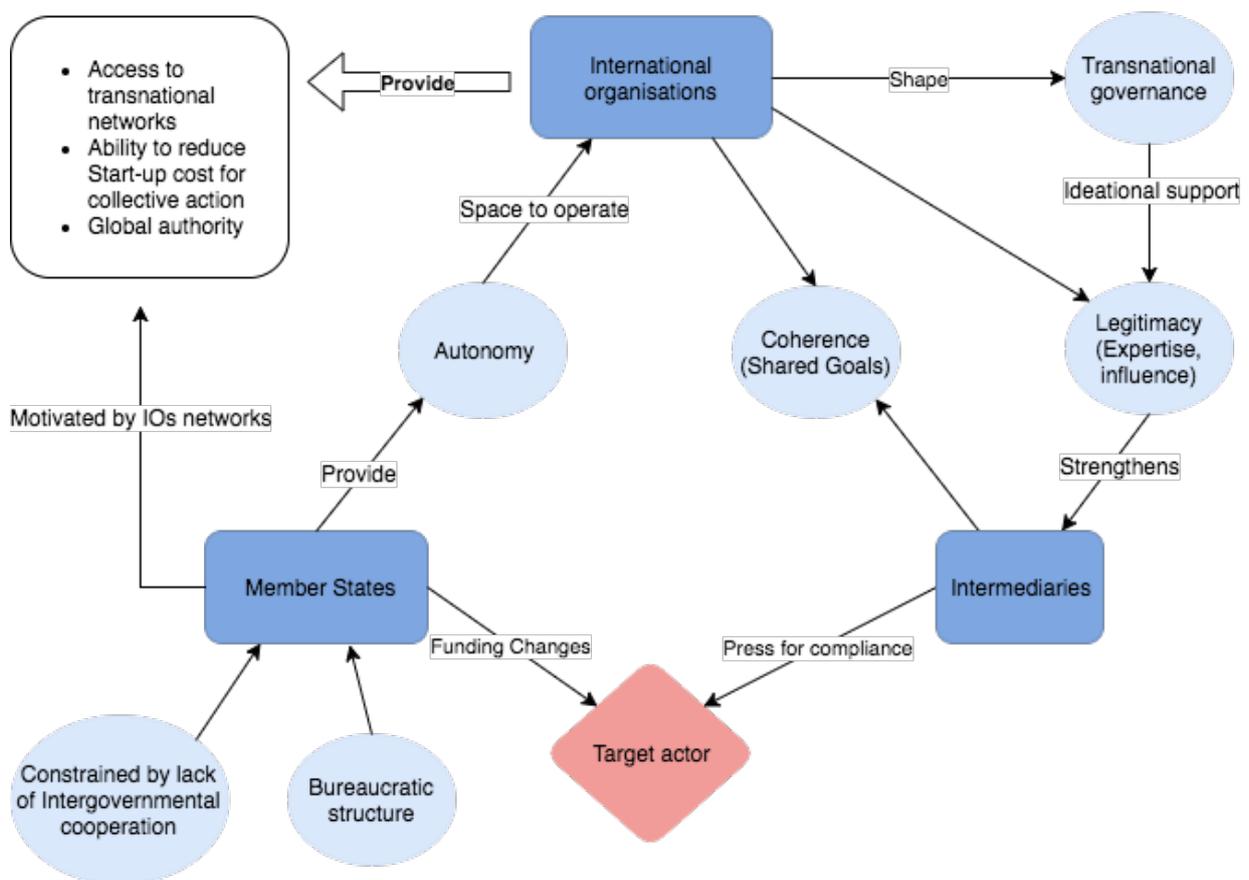


Figure 3: Theoretical Framework

3. Methods

3.1 Research Method

A research approach consisting of an exploratory case study, grounded theory and qualitative mixed methods were deemed appropriate for this study. Orchestration is a recent topic found predominantly in the language of academics. Thus, navigating its influence in a practical sense posed a challenge. An exploratory case study is considered a concrete and sensible first step when the topic of focus has not received extensive empirical research (Mayer and Greenwood, 1990). This allowed the focus to work deep into the topic and explore the nature of the issue. The use of grounded theory was utilised as it facilitated the development of the theory as the data was both collected and analysed (Strauss and Corbin, 1998). The theory was adapted to fit the topic considering the niche nature of the subject. As stated above, the limited range of empirical evidence regarding the topic has necessitated this chosen research method. For an accurate understanding of the issue, and to highlight the effectiveness of orchestration, it was necessary to isolate a case with which to both identify and analyse.

3.2 How will the impact of orchestration be measured?

As laid out in the analytical framework, several conditions were laid out for the measurement of policy change. These conditions were vital when sculpting the research.

Two core concepts were identified. Through these concepts, the research was guided. The first concept that was examined was *orchestration*. This concept is the dependent variable (DV) in this case. The research examined how orchestration affected the policies of the GCRF. The second of these concepts was the independent variable (IV), *policy change of the GCRF*. Policy changes are inevitable in an organisation as large as the GCRF, who is committed to spending 0.7% of the UK's GDP between the years 2016-2021 on overseas development aid. The degree of policy change using these concepts and the conditions with which to measure them could then be established. Exploratory research like this required the combination of different approaches.

The first component of the research required the establishment of the dependent variable. In order to answer the posed research question (section 1.3.1), the presence of this variable was vital. Orchestration is a theme that requires many specific requirements falling into place. In order to identify this concept, the theory on the governance mode was closely examined and the key conditions were identified. Three core conditions for the presence of orchestration were chosen: (i) **Legitimacy**, (ii) **Coherence** and (iii) **Intermediaries**. These conditions were based around the work of Abbott and Bernstein (Abbott & Bernstein, 2015). By attaching these conditions to the case, they could be analysed to determine the presence of orchestration.

The second concept and independent variable, was how policy change had been affected by orchestration, and was measured in greater detail. Policy change is a complex and difficult practice to measure and required a suitable tool to do so. As noted in the analytical framework, *Advocacy Coalition Framework* was chosen to measure this change. This

research views orchestration as a coalition of actors looking to affect change externally; in this case in a relatively rapid manner. In order to measure policy change in this complex framework, the appropriate conditions for change were selected with special consideration given to the case in question and the type of policy change.

3.3 Analytical Framework

Policy change was measured using the conditions laid out in Table. 2, these conditions have been taken from Sabatier’s model of the Advocacy Coalition Framework (1988 & 2007). Using the framework it has allowed this research to measure policy change. The following analytical framework has been supported by leaning on a mixture of literature on the observations of policy change while using the Advocacy Coalition Framework. It has been adapted to the selected case and will be utilised to measure any policy change. Orchestration is an external process. Therefore from Sabatier’s model it was decided to select the external events.

Table 2: Analytical Framework

Condition	Operationalization	Indicator	Literature
Socio-economic	<i>Do funding patterns change due to the effect of report?</i>	Direction of funds	Sabatier (1988) Cerna (2013) Schlager (1995) Kubler (2001)
	<i>Does the perception of issue change?</i>	Commitment to issue Buy-in	Hecllo (1974)
Policy oriented-Learning	<i>Does the report lead to visible changes?</i>	New initiatives	Sabatier (1988, 1998 & 2007) Hecllo (1974) Kubler (2001)
	<i>Does the input of non-state actors aid policy change process?</i>	Access to decision making arenas	
	<i>Does the report lead to an alteration of the GCRFs policy decisions due to lessons learnt?</i>	Adoption of new methods. Change in focus.	
Policy decisions and impact from other sub-systems.	<i>Does the input of outside organisations affect policy?</i>	Direct funding changes.	Sabatier 1988 Fischer et al, 2006 Schlager 1995
	<i>Levels of outward funding in comparison to before. ODA assistance changes.</i>	Administration/Target setting.	
Changes in systematic governing coalition	<i>Does the governing coalition alter changes?</i>	Shifts in SDG policy/direction	Sato 1999 Fischer et al, 2006. Kubler 2001
	<i>Does the governing situation alter in which to allow: change to occur</i>	Change in Leadership	

3.3.1 Socio-economic Factors

The socio-economic context was a highly cited condition amongst the literature on this framework and its involvement with policy change (Sabatier, 1988; Cerna, 2013; Schlager 1995; Hecló, 1974 and Kubler 2001). This relates to the changing social and economic environment that can alter quickly. It is this change which allows advocacy coalition the opportunity in which to affect change. This condition occurs with the changing patterns, making change both necessary, and, a requirement in order to progress. An example being public opinion regarding a particular issue, if it is favourable this will allow policy change to occur more easily.

3.3.2 Policy-oriented learning

This condition refers to the alteration of thought and subsequent behaviour. It is found due to an improved knowledge of the issue in question and the factors, which has caused them. The basis of this condition is that this new knowledge received is integrated into the basic values and causal assumptions of the actor in question (Sabatier, 1988 and Hecló, 1974). These values and assumptions then follow that of the advocacy coalition, which provided the knowledge. This condition is not in Sabatier's table but is remarked upon heavily within other works by the author. Additionally, this condition is seen as a crucial factor in determining policy change when utilising Advocacy Coalition Framework by other authors (Hecló 1974; Sabatier 1998 and Kubler, 2001). It is a particular framework that is ideally suited to the assessment of learning oriented policy change (Schlager, 1995). The ease that information is received and understood, falls under this condition.

3.3.3 Policy decisions and impact from other sub-systems

Decisions from other sub-systems within the area enable change to occur. For example, changes carried out by other actors who are not directly involved with the case may inadvertently aid the policy change in another area. The decisions and impacts may not be implemented directly to a designated party but the effects may be transferred. In the chosen case, many actors are involved with the process both directly and non-directly. Through this condition, change can be affected through indirect means.

3.3.4 Changes in Systematic Governing Coalition

A direct focus may be reached by those within the coalition allowing for a concerted effort to be made. A change such as this on a single issue enables increased resources to be allocated and thus increasing the likelihood for policy change. Alterations to those governing a policy area can lead to changes, or provide a suitable environment for change to occur.

3.4 Motivation for case-study analysis

John Gerring has defined case study research as “an intensive study of a single unit for the purpose of understanding a larger class of units” (Gerring, 2011). With this in mind, this project chose to isolate a single case study with which to analyse. In order to isolate a case of orchestration, related to the chosen organisation, the GCRF, special consideration was required. The identification of a case that fulfilled the necessary conditions, as set out in the theoretical framework, took considerable time and analysis. Therefore, a single case was

considered the most appropriate method to gauge both the presence of orchestration and the impact it had on policy. By focusing on one case, it allowed a deeper selection of analysis to occur both in an empirical sense and through literature review. In order to gain an understanding of the role of the stakeholders and impact of the orchestration, it was necessary to focus on a sole case study in a complete fashion.

3.4.1 Protocol for case-study

Protocols were established to both transparently and holistically answer the research question. Several steps were followed to gain the necessary information and contacts. This research is exploratory in nature. The first step involved the identification of orchestration within the case. Utilising the theoretical base, enabled a selection to be made based on the conditions for orchestration as outlined by Abbott and Bernstein (2015).

The preparation process began by emailing the appropriate actors who were involved in the case. They were selected after an analysis of the Global Goals Report and GCRF literature. As the process evolved, this process was slowed by the unfamiliarity of the term, *Orchestration*. Terminology surrounding the topic of orchestration is not commonly known and this research has established that it remains a largely academic. Thus, the language required to gain the necessary information and contacts was adapted. In order to establish the appropriate contacts, the initial email was sent to the organisation involved with the case. This general, exploratory email explained the purpose of the project and the wish to speak with the pertinent individuals involved with the case. The response rate was positive with a high degree of interest in the topic. However due to the specific nature of the topic and governance mode, the number of individuals across with direct knowledge of the case was limited.

3.4.2 Case selection and Bottom-up approach

As mentioned above, orchestration requires the presence of a particular set of characteristics. Targeting the appropriate case took *careful consideration*. *The first task* was to examine a case where orchestration could be identified within the chosen organisation. Through careful analysis of GCRF literature a case was identified. The project is focused on a bottom-up approach to understanding the impact of orchestration. This was carried out in order to assess the impact on policy change. The research was focused on the target actor and sought to understand policy changes from that perspective. This was carried out to view orchestration from a different perspective than the literature. The conventional view of orchestration is a process that is implemented in a top-down fashion.

3.5 Interview Process

This process was completed in three stages. The initial interviews were focused very much on the exploratory level. The central underlying theme of orchestration is influence, thus sensitivities with regard to questions were considered. The first block of interviews was carried out with a general focus in mind. These interviews were not case focused but centred on *orchestration and the interaction between state and non-state actors*. This crucial aspect

allowed for a concrete understanding of the governance mode, outside of what was known through the theory. These interviews were open-ended in order to facilitate the greatest amount of information and to enable the creation of further contacts.

The second phase of the interview process focused solely on the case study. Orchestration can be viewed as a chain. In order for it be effectively analysed it was important to assess the input and interaction at various stages of this chain. Several semi-structured interviews were carried with actors from different points of this chain, Orchestrators, intermediaries and the target actor. These interviews were focused specifically on the case using a broad analytical lens. They allowed a vivid picture of the type interactions at work between actors and their impressions of the process. The final stage utilised structured interviews. The previous stages enhanced the understanding of the case, which individuals to interview and the most effective questions to ask. The structured interviews allowed for greater detail to emerge from the answers.

In order to identify discourses running through the interviews, the Nvivo programme was utilised. This qualitative data analysis software allowed for a coherent and accurate understanding of the linkages between interviews to be made. Three blocks of interviews were conducted with individuals from different backgrounds see (Table. 3). Nvivo enabled linkages to be found within the separate interview blocks. Nvivo aided the identification of linkages between some of the answers received. This tool enabled the discovery of not just what the interviewees said but also to build implicit connections between the responses.

3.6 Chosen Case Study

The selected case was the Global Goals Mapping Report and its affect on the policy change within the GCRF. In order to sufficiently answer the research question it was important to bring the two branches of research together: SDGs and orchestration. The case is used to both identify orchestration and analyse its influence with a focus on the SDGs. Using SDGs as the subject, the case was analysed to assess the impact of orchestration by the UNEP-WCMC on the policies of the GCRF.

3.6.1 Introduction to organisation

The chosen case study focused on the **Global Challenges Research Fund (GCRF)**. The GCRF is a body of the UK research council with a £1.5 billion endowment from the UK government to support research that addresses the challenges faced by developing countries (RCUK, 2017). The fund forms part of the UK's Overseas Development Assistance (ODA), an official register which tracks overseas funding and the criteria they are bound to.

To identify orchestration from a bottom-up perspective it was essential to identify a case that affected the policies of the GCRF. Following thorough research a report called **Global Goals Mapping: The Environment-human landscape** was identified. This substantial 150-page report was commissioned by the UK's Natural Environment Research Council (NERC) and The Rockefeller Foundation. The two organisations mentioned above are establishing a new initiative: 'Towards a sustainable Earth: Environment-human systems and the UN Global Goals' (TaSE), in their hope to see the fulfilment of the 17 SDGs. Thus, their interest in conducting a report that aids this process was sparked. To carry out this report, the Sussex Sustainability Research Programme at the University of Sussex and the UN Environment

World Conservation Monitoring Centre (UNEP-WCMC) in Cambridge were commissioned after they successfully applied to carry out this research.

The report evaluates the challenges that lie ahead for the SDGs by individually assessing each SDG. Much of the focus is attached to the human-environment interactions that exist in each goal. The report summarises that “the central role of environment-human interactions in progress towards the Global Goals as an indivisible whole” (Scharlemann et al, 2016, p. 98). The report identifies research areas of focus that are required in order for SDG objectives to be realised. Additionally the report seeks to affect change in how SDGs are researched and direct funds across a wider breadth of research. The ambition is to ignite a research drive to tackle gaps that the orchestrators and intermediaries view to be holding the SDGs back. To do this, the report is utilised as a **tool** to affect policy change in the GCRF.

3.7 Organisations

Using this case, it is important to identify the roles taken up by the actors. Orchestration depends on the presence of an intermediary moving between the target actor and orchestrator. With this in mind and by identifying the many moving parts within the case, the actors could be separated in categories. All interviews were conducted with individuals who work with a specific focus on climate related issues and the SDGs in particular. The selections of roles were based solely on the conditions for Orchestration as laid out by Abbott and Snidal (2010). The **O-I-T model** (figure. 1) has guided the following selection.

3.7.1 Target Actor

The research was focused on how orchestration has affected the policies of the Global Challenges Research Fund (GCRF). As a vital part of the UK government’s aid strategy, the GCRF tackles many global challenges with the national interest in mind (RCUK, 2017). As the focus of this case study, the GCRF takes on the role of target actor. This is the body that the other non-state actors wish to orchestrate. Two interviews were conducted with interviewee A, a semi-structured interview, followed by a second structured interview. Interviewee A’s, area of expertise is focused on criteria setting and the release of funding to applicants. A semi-structured interview was carried out with interviewee B with the policy of the GCRF the central focus.

3.7.2 Orchestrators

So, who is pulling the strings and implicitly utilising the governance mode of orchestration? Two authors constructed the report but only one is the orchestrator. To orchestrate, an intergovernmental organisation is required.

The first is the orchestrator, the **UNEP-World Conservation Monitoring Centre (WCMC)**. This is a UN body based in Cambridge, England, which is an executive agency of the UNEP. In addition to conservation, the organisation carries out biodiversity assessments and supports policy development and implementation. The UNEP-WCMC led the report in *policy related matters*.

Sussex Sustainability Research Programme (SSRP) worked alongside the UNEP-WCMC. It is not an orchestrator because it is not an intergovernmental organisation. The SSRP

supported the UNEP-WCMC with the creation of the report. This organisation was led by a senior lecturer from the University of Sussex who completed the project in cooperation with the UNEP-WCMC. They were both assigned to work on the project. The two authors worked in conjunction to bring the report to completion.

3.7.3 Intermediaries

In order for orchestration to be present it requires the presence of intermediaries. These actors act as the go-to-body between the orchestrator and the target actor. In this case, there are two, The National Environment Research Council (NERC) and The Rockefeller Foundation who were the finance behind the project. Both organisations found common ground with the orchestrators, that there was a need to highlight the role of human-environment interactions, and an urgent need to address them.

The **NERC** is a leader in funding research into independent research and other environmental projects in the UK. They are allocated funding through the Department for Business, Energy & Industrial Strategy (BEIS). However, their funding decisions are made independently of the government, similar to the GCRF. The NERC provided much of the funding for the report. The NERC as one of the UK's research councils, unlike the UNEP-WCMC, the NERC was in regular contact with the GCRF.

The **Rockefeller Foundation** as the second intermediary utilised much of its experience. The organisation is a private-based foundation based in New York, which has interests in multiple arenas, including climate change research. The organisation pursued a more hands off role in the case.

3.7.4 External interviews

To offer context on orchestration, and to further understand the concept, additional interviews were conducted. They were chosen to represent the viewpoint of the member state and intermediary perspective. The member state interviewee F was undertaken with a high-ranking official from the Irish Government's Department of Foreign Affairs. This discussion allowed an impression of how SDG policy is constructed by the interaction between the non-state actors and those of the country. While the NGO consultant, interviewee G enlightened the research by describing the type of interactions that take place as an intermediary.

Table 3 below on page 27, lists the details of the interviews conducted. Included in table are their organisation and role within that organisation.

Table 3: Interviews Conducted

ID	Organisation	Position	Responsibilities
A	GCRF	Senior Lecturer, Queens University, Belfast.	Member of the peer review college for the GCRF. Reviews applications for research.
B	GCRF	Senior Policy Manager	Leader of the program. Sits on committee, which reviews the direction of funding and research needs.
C	UNEP-WCMC	Head of Programme, Climate Change and Biodiversity	Leads work on impacts of climate change. Liaises with national governments, key partners and funders. Lead UNEP team involved in report.
D	Sussex Sustainability Research Programme	Professor of Conservation Science, University of Sussex	Lead Author of report.
E	National Environment Research Council (NERC)	Senior Programme Manager	Acted as a go-between the NERC and GCRF. Directly involved with the implementation of report.
F	Irish Foreign Affairs Office	Deputy Director	Involved a high level diplomatic relations regarding SDGs. High level of interaction with non-state actors at the international level.
G	Multiple NGOs	Freelance Consultant based in Dublin, working globally.	Involved with multiple NGOs in SDG implementation focused on development.

3.8 Ethical Considerations and sensitivities

Orchestration is a mode of governance that is not often seen in international diplomacy. It is also a topic rarely examined at university level. Thus, special consideration was attached to the information received through interviews. Some interviews conducted during the completion of this research project took place with individuals in high-level positions. Thus, any issue, which may be seen as harming diplomatic relations or cause conflict with other actors, were requested to be dealt, with sensitivity. The interviewees consented to their views being expressed within the project. Despite this, discretion was used to avoid any issues later emerging with the publication of the project.

4. Results

4.1 Introduction to results

In order to answer the posed research question, a two-step process was undertaken.

Using the conditions for orchestration as laid out in the theoretical framework the case was compared. Moreover, for the second component of the results section, indicators will be examined for the four conditions as laid out below. These indicators have been adapted with both the theory and case study in mind. Within each indicator, they will be assessed to firstly determine their presence and secondly to test their impact on the case in question. When analysing the data it was crucial to remember the *context* that these responses were being made in. Three separate groupings are involved, and interviews were conducted with the *orchestrators, intermediaries and target actor*.

Thus, the analysis of responses has been interpreted using the literature available and the available documents on the topic. The majority of interviews conducted were from individuals involved in prominent capacity with the Global Goals Mapping Report, at varying phases. The remaining two external interviews offered a well-rounded opinion on the interaction between orchestration and the policy objectives of non-state actors. All interviewees operated either independently or with minimal contact to the other interviewees. Therefore *linkages* were drawn from the answers received.

4.2 Case Study Results

4.2.1 Test for orchestration

In order to gauge the effect of orchestration on policy change it was necessary to test if orchestration was in fact occurring. To identify the orchestrator, the work of Kenneth Abbott and Duncan Snidal was leaned upon (2010, 2011). Abbott et al have noted that not only is UNEP the only intergovernmental organisation that deals solely with the environment but that it scores highly on aspects that are assumed to enhance the likelihood of orchestration occurring (2015, p. 238). The article also comments that it is an organisation that orchestrates extensively. With this in mind, the case was examined. The UNEP-WCMC was noted as the driver behind the policy change. This was carried out through their input within the report. This input was provided through the content they provided in order to attempt to affect policy change.

Within the extensive report, the UNEP-WCMC laid out the case for the intermediaries to bring to the GCRF, in their effort to instil change. Considering the factors laid out above, a judgement was made that the UNEP-WCMC played the role of orchestrator. With this established and through the use of Abbott and Bernstein's conditions for orchestration as laid out in the theoretical framework, the case could be examined for the presence of orchestration (2015).

Intermediary

This research highlights the opportunities that orchestrators can capitalise on. Despite the project being commissioned by the intermediary, the orchestrator capitalised on this window of opportunity to establish a connection. The UNEP-WCMC applied to carry out this research and thus gained access to the decision-making arena. The UNEP-WCMC lacks the access to the target actor, the GCRF.

As an intergovernmental organisation it required an intermediary with access to the GCRF. The Rockefeller Foundation and the NERC possess contact to both the GCRF and the UNEP-WCMC. The NERC, as a British research council interacts with the GCRF and is able to lend its considerable influence. Both *intermediaries* saw a need for more research into this subject, thus they are willing to engage with the UNEP-WCMC. The intermediaries in this case possess financial capabilities and access to decision making arenas but lack the ideational support to push through change. Through the report authored by the UNEP-WCMC, both organisations can legitimise their efforts to affect policy change.

Coherence

The first condition relates to the coherence found between the orchestrator and the intermediary. In this case the GCRF and the intermediaries, NERC and the Rockefeller Foundation, are brought together initially by their involvement in SDG related activities. The two intermediaries have identified the impact interactions between the human and environment can have. They view the challenges of meeting the SDG targets as complex, requiring research that cuts through goals, a belief that is echoed by the UNEP-WCMC. A core point of coherence is that research should take into account the interactions between SDGs. It seeks to implore for research to be taken up by researchers working across and between SDGs. Both maintain that the impact these interactions will have on the realisation of the global goals has not been fully investigated. They also agree that in order for the objectives of the SDGs to be met, consideration of this interactions will be necessary in terms of future research.

The intermediaries in this case have the ability to build coherence, as they possess the capabilities to commission such a report. Thus, they finance the report that is carried out by the UNEP-WCMC and SSRP. This aids their influence within the arrangement. As laid out by Abbott et al, orchestration operates through an equal relationship between orchestrators and intermediaries (2010). The voluntary arrangement ensures this; the intermediaries are not bound to the orchestrator at any time. In this case, the intermediaries are able to exert their *legitimacy* through the financing of the report, and are able to influence the target actor with the expertise and ideational support that is provided by the by the UNEP-WCMC. The relationship can therefore be said to be **self-reinforcing** due to the *coherence* shared between both parties (Bernstein, 2015).

Legitimacy

The UNEP-WCMC holds autonomy in its position as author of the report. It is free to dictate its own direction but is unable to directly influence policy. Therefore, its role is to provide the ideational support and this is carried out by producing content to meet their own objectives (Abbott et al, 2010). The objectives of the NERC and Rockefeller Foundations as stated by interviewees C and D, is to create a joint funding programme around SDGs, and the importance of measuring the human-environment interactions. The intermediaries in this case view this as being essential, to the realisation of the global goals to achieve their full potential in 2030, where the SDG target objectives have been set.

Interviewee C has noted that it was her belief that this case was being utilised by the Rockefeller and the NERC as the first step in this process. The GCRF, which has been

endowed with a large fund to spend and being a UK research fund, it was seen as favourable ground to begin with. However, the *credibility* with which to influence the policy making of the GCRF was based solely on the report. The report allowed the intermediaries to exert influence and push for policy change.

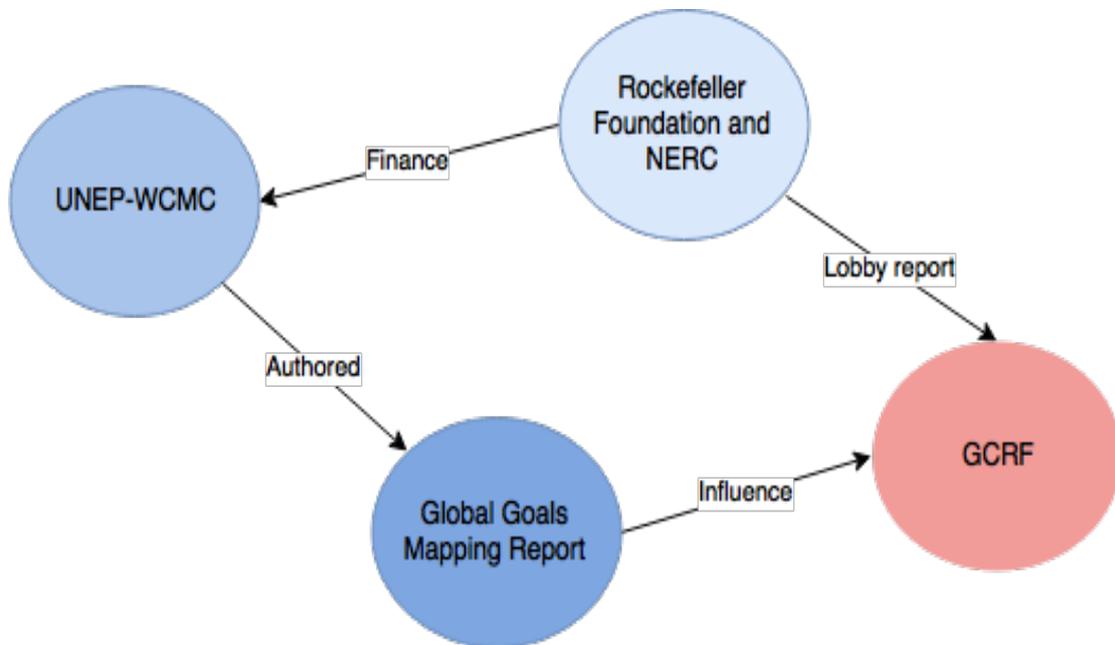


Figure 4: Orchestration of the GCRF

4.3 Conclusion to the Identification of Orchestration

All criteria have been met. Coherence has been found through the objectives of the report between the orchestrator and intermediary. The legitimacy of the UNEP-WCMC has enabled the report's submission into decision-making arenas. Thus it *can be agreed that orchestration was present* during this case.

4.4 Orchestration and Policy Change

Table 4: Coded responses from interviews

Nodes			
Name	Sources	References	
Changes in systematic governibg coalition		0	0
Leadership		3	4
Shift in SDG policy		6	10
Learning		0	0
Access to decision making arenas		5	11
Change of focus		5	11
New initiatives		4	6
Policy decisions and impacts from other subsystems		0	0
Funding changes		5	6
Socio-Economic		0	0
Commitment		3	5
Direction of funds		4	5

Displayed in Table 3, are the coded responses from the eight interviews conducted that have been categorised. The higher the number of references: the higher the degrees of policy change evident in that indicator.

4.5 Socio Economic

4.5.1 Direction of funds

Interviewee C relayed that when the UNEP-WCMC had noticed potential issues for the SDGs namely potential interactions between targets (2017). This sparked the orchestrator’s interest in entering the case and authoring the report. They perceived that funding could be attributed to these highlighted areas where they felt gaps existed. The result of the input form the report led to funding changes. Funds were allocated towards different areas. In July 2017, a second HUBs research call was commissioned. This research called for a second HUBS call to meet the challenges that lay ahead for SDGs. This funding call is in direct response to what the GCRF claim as **intractable development challenges** (GCRF, 2017). This change in tactics is in response to the issues highlighted in the report for a reconsideration of the methods used to assess SDG issues. Increased amounts of SDG literature have echoed the report calling for closer consideration of the interactions between goals (Nilsson; Griggs & Visbeck 2016).

The strategic board which heads up the GCRF has learned that **issues cannot be solved by a single organisation or approach** (Interview, B). Funds are being redirected to gather researchers who work across all disciplines and possess the capacity to work across different fields (RCUK, 2017). This is echoed in how funding related to the SDGs is allocated. Research funds have been established within the HUBs call, for researchers who work with several SDGs and across goals.

4.5.2 Commitment to issue

Interviewee A, in the second semi-structured interview conducted with this individual, relayed that there has been a noticeable attitude change in how SDGs are viewed. By basing policy around the SDGs, it has been noted that there is a far greater urgency to commit to targets (Interview A, 2017). However, that same interviewer from the GCRF could not isolate the report as being the defining factor in this commitment. The SDGs had placed a framework with which to work around, and this had both increased commitment to SDG issues and accountability. The SDGs have brought change, they are easier to measure and the impacts are more visible. Yet, it is difficult to assess whether this commitment can be attached to the report or the changing landscape of environmental policy. A large amount of SDG policy has been born out of competition, and the motives can be difficult to decipher (Interview F, 2017).

4.6 Policy Oriented Learning

4.6.1 New initiatives

In response to the report, actual changes did occur. An environmental *workshop* was formed by the GCRF. The workshop was titled the ‘Sustainable Development Goal (SDG) Interactions: The role of environmental science’. This workshop was conducted in order to provide information about the second HUBs research call (NERC, 2017). It sought to identify individuals and the environmental science community, to engage with the new call and to push research in this direction.

Partnerships shaped a large portion of future policy. The GCRF now place a large amount of value on collaboration and partnerships (Interviewee B, 2017). The same interviewee explained that research policy is shaped in that direction to encourage overlap between disciplines. The biggest policy changes have been with partnerships and funding changes. A monitoring and evaluation framework has also been formed. The GCRF is focused on partnerships around the goals and crucially around those who fund SDGs particularly in developing countries (Interview B, 2017).

4.6.2 Access to decision making arenas

The learning process of implementing changes has been aided by contact between actors where decisions are made. Interviewee B who directs policy at the GCRF explained that the organisation utilised many avenues for strategic input, both formal and informal. At least one NGO sits on its advisory board at all times. Moreover, it provides a suitable environment for non-state actors to influence. The same interviewee has stated that the GCRF often shares best practices with other organisations and is hospitable to ideas brought in from outside. The links to organisations are no stronger than with the GCRF and the NERC, an intermediary in this case. Interviewee E who was heavily involved with the NERC on this project explained how the NERC made use of these very close links. He stated “between those running the GCRF and NERC, who commissioned the report, and it was through these day-to-day working relationships that the report was discussed with the GCRF team” (Interview E, 2017).

UNEP-WCMC recognised this relationship, and it was observed that the expansion of research, could be achieved using this report, and with the NERC as the intermediary, due to the particularly close links between the two UK agencies (Interview C, 2017). Despite two intermediaries existing, UNEP-WCMC dealt primarily with the NERC due to its greater involvement in this report and its status as a vital cog in the UK's environmental policy. In terms of finance and influence interviewee A commented that the key advantage NGOs and organisations with close links like the NERC possess, is that they knew what methods that can be used to affect change and finance. As an intermediary in this case, the close link to the GCRF was vital (Interview, E)

4.6.3 Change of Focus

Both interviewees A and G have separately commented that there is a growing NGO viewpoint that it is necessary to implement **capacity building** into how SDGs are handled. This is also the case with the GCRF. This has been pressed within the report that research around the area of SDG policy will require a greater understanding of the complexity involved.

All research has been pushed to link with SDGs and stringent rules are in place. The GCRF now works with NGOs at multiple levels. Interviewee B from the GCRF, has said that for the new HUBs call, the key criteria are *capacity building* and *partnerships*. These strict criteria are launched in line with the ODA criteria. ODA monitors the UK's overseas funding and it is in turn, monitored by the OECD. The organisation has learnt that it is important to fund research, which enables these *capabilities* (Interview, B). An emphasis has been placed on SDG funding from the bottom-up, through local NGOs in particular (Interview, G). These methods have been adopted for future research into SDGs, in particular in developing countries.

4.7 Policy decisions from other subsystems

4.7.1 Funding changes

This research identifies the policy subsystems as the coalition of actors working to affect change. In particular, those intermediaries who have financed the report and who have utilised their connections to feed the report into GCRF thinking. The other non-state actors set the wheels in motion, by initiating policy decisions that pushed for change. Within the one indicator attached to this condition, a degree of change was recorded.

Judith Rodin the current president of the Rockefeller Foundation and Duncan Wingham the chief executive of the NERC came together and decided that a change of focus was needed in relation to the SDG goals (Interview D, 2017). Their conclusion was that there was a need for scientists to help them come to fruition. That it is not just a government issue and required significant examination from the scientific community (Interview, D). To combat this, funds were allocated for the report with the intended focus of altering the direction of SDG related research. The agreed brief of the report and intended written purpose was for "the report to be utilised to affect the decision making processes of the GCRF" (Interview, D).

Additionally, the ODA criterion, which is reviewed every three years, was up for review in 2017 (OECD, 2017). New guidelines on how to approach research were distributed. The GCRF has provided information to prospective applicants on how to meet these new requirements. Moreover, the next three years of overseas funding will abide by new criteria that has been enforced and set out by the GCRF.

4.8 Changes in Systematic Governing Coalition

This condition is viewed as the GCRF governing body and the UK government, which oversees the organisation. Additionally, changes from the strategic board, and alterations in the handling of SDGs by the UK government, were examined.

4.8.1 Leadership

One third of the governing coalition in charge of the GCRF is made up of outside actors (Interview B, 2017). Input is gathered from many actors within this grouping. Non-state actors in this strategic board have played an active role in the push to implement the SDGs. Interviewee A has noticed a change in focus with leaders set for pushing the SDGs beyond that of the MDGs.

Additionally, the GCRF's position and funding potential has placed the organisation in a position to use it in comparison to another sustainability framework such as 'The Sustainable Earth Network' (Interview C, 2017). Another key factor that has been highlighted is the *capabilities*, which the GCRF possess. They are in a position to alter practices and policy due to their consultation process and oversight committee (Interview C, 2017). Through this window, intermediaries were free to engage with the hierarchy of the GCRF.

The UK government has sought to take the lead in SDG research. The GCRF seeks to enhance the UK footprint through the conception of research projects that affect real and concrete change (Interview A, 2017). The UK government has enabled policy change by seeking to pursue SDGs through a different perspective

4.8.2 Shift in SDG policy

This shift was seen in the attitudes towards SDG policy from the state level. Governments have learned their lesson. They have discovered that there is no point in distributing a pot of money, without impact on the ground. In addition to being set up with this in mind, the GCRF is totally linked to the SDGs (Interview A, 2017). All GCRF core documents are formulated with the SDGs in mind (Interview B, 2017).

The UK has committed to spending 0.7% of the national GDP over five years on overseas aid. The report signalled an end to '**blue sky research**'. Unless a link can be established that fits the ODA criteria then the SDGs funding will not be allocated (Interview A, 2017)

Did these fertile environments for change, allow the report to affect policy change? The report was not seen to have had a major effect as the GCRF lacked a specific policy on SDGs (Interview E, 2017). However, the report was hugely influential in the *thinking behind*

the second HUBs research call (Interview E, 2017). The written brief around the report was that it could hopefully be used to feed into the decision-making processes of the GCRF. It was observed that the report was part of a larger scheme to create a new funding drive in the direction of the findings (Interview D, 2017). In this case, this did occur. The report was a fundamental tool with which they used for future funding calls. Orchestration can be utilised as a means to affect policy change, by significantly reducing the transaction costs involved.

5. Discussion

5.1 Analysis of results

From an evaluation of the empirical analysis, several observations have been made. When forming such observations it was important to consider the *Global Goals Mapping Report* as the *tool* with which the orchestration was channelled through.

5.1.1 What has been observed?

The governance mode, *orchestration* has been clearly identified within the case. It has been utilised to exert the UNEP-WCMC's influence into the GCRFs policy decisions. The report *did not affect fundamental policy change* in the GCRF immediately. Additionally, SDG policy within the organisation has not been altered significantly by the report. However, it has been asserted that this is largely down to the organisation lacking a particular method to deal with SDG policy (Interview E, 2017). Change was observed elsewhere.

From the *four conditions* listed in Table. 2, differences can be observed. All conditions went some way to the creation of change. Some indicators, such as commitment to issue and leadership, did not play a major role in directly affecting change. Yet they enabled the likelihood of change occurring through other means. Within certain indicators it can be observed that they shaped the future direction of the organisation and played a crucial role in their subsequent research call. From the results, it can be observed that the highest number of responses was found to be **learning** related. The report has been used as a mechanism to dictate future research. It has also demonstrated the increasing complexity, regarding SDG goal setting. *The report has been taken on board as a tool to affect change rather than the instigator of the change itself.* The report has made the organisation think about, how they fund direct SDG policy.

When looking at Table. 3, it can be observed that the lowest amount of references was achieved in the *socio-economic* condition. These factors had the lowest impact on policy change. This can be explained that this research examines change from a bottom-up perspective, yet the majority of influence affecting change has been instigated from the top-down. Policy alterations have been recommended from experts in the field in order to instigate SDG funding in a bottom-up direction. "Top-down facilitation allows down up movement (E. Britton, Personal Communication, 2017)".

Linking the results to the theoretical framework has enabled a picture of the policy changes that have occurred, to be formulated. The facilitation of change has been significantly aided by *buy-in* from various stages of the governing level. Added to the determination and

financial strength of the coalition of actors, it allowed for *suitable conditions* for policy change to emerge.

The results of the interviews were compared with official documentation from the NERC and GCRF. The ODA compliance list, that records the UK's overseas development aid was also consulted. The criteria list was reviewed in 2017. The timing coincides with the submission of the report and subsequent alteration in policy. Criteria changes in ODA funding are altered in order to meet development requirements.

5.1.2 Has Policy Been affected?

Policy change is not a black and white issue, and can appear in many forms. It is also considered a largely misinterpreted phenomena (Bennett & Howlett, 1992). Therefore, it was necessary to look at other ways that may have been affected by the report. What can be observed is that policy change may not have occurred in a great deal in an immediate sense, but alterations to policy have occurred. In this case, as noted above, significant *policy learning* has taken place. Despite differences over the type of *learning* that can take place, policy learning has long been established as a core principle of policy change (Hall, 1993; Hecló, 1974; Sabatier 1988).

Firstly, the key alteration has been the change in how the GCRF *views* SDG research. The report has served to highlight the complexity of the *challenge*. Practical responses can be observed. The organisation has sought to commence *partnerships* and encourage participation across SDGs in order to meet the challenges of the interactions between goals (Nilsson et al, 2016). The report sought to identify urgent research challenges. One of the key findings was a push towards **multi-stakeholder partnerships**, both “partnerships within individual goals and across goals” (Scharlemann; Mant & Kapos, 2016, p. 84). This recommendation has been mirrored by decisions taken by the strategic board of the GCRF with a move to encourage *partnerships*, being central to future actions.

The second key move associated with *policy learning* has been the commencement of the second HUBs call. The core message from the call has been for researchers to work across SDGs. The call echoes the main findings from the report, which was successfully used to orchestrate the GCRF. An estimated **12-15 hubs research grants** are to be distributed out to researchers (RCUK, 2017). The funding is estimated to be between **£8-20 million** available for each Hubs call over a five-year period (University of Cambridge, 2016). This financial commitment has been allocated for research to address the challenges, many of which were highlighted in the report.

Furthermore, *workshops* have been formed to push research in the direction of the report. The GCRFs ‘Sustainable Development Goal Interactions Workshop’ sought to inform and encourage prospective applicants. The workshop sought to address what were seen as intractable development challenges. The meetings additionally attempted to build collaborations between researchers to work in partnership in order to meet the challenges. This was carried out in order to bridge any *knowledge deficits* and to point research in the direction of the HUBs call. Above are clear and vivid examples of shifts in policy from the GCRF that have been learnt through the report.

5.2 Food for Thought

The findings from the analysis of the case study have been that orchestration *did affect future policy decisions* within the GCRF. The orchestration was carried out through the conception of a report (Global Goals Mapping) highlighting areas of focus for SDG research. This orchestration has taken place within favourable conditions for SDG policy change.

Outside of *learning*, which was found to have the greatest number of respondents, the other conditions showed evidence of policy change. They did not push through change, rather enabled change to occur by facilitating *drivers for change*.

This report that was co-authored by the UNEP and the SSRP, fed into the GCRF's decision-making processes through a combination of the NERC and the Rockefeller Foundation. The report affected how the GCRF views future SDG research, and played a highly influential role in their subsequent second HUBs research call. The report served to deviate the conventional SDG funding towards its intended focus, to create a funding drive to meet the challenges posed by the ever-evolving SDGs. This coalition of actors orchestrated in order to attract research funding to this area of focus.

Through policy learning, the organisation altered their funding practices to more accountable endeavours with SDGs as the core focus, such as *capacity building* and *supporting local NGOs* through a bottom-up approach. By enabling initiatives from the ground up, the organisation sought to generate buy-in and increase the collective commitment to the targets. The effect on GCRF policy has been learning-oriented.

Table 5: Breakdown of GCRF Policy Changes

GCRF Policy learning
Central driver behind second HUBs call.
Workshops
Partnerships
Altered view of how SDG research is funded

Orchestration has been utilised as a tool with which to highlight the changing landscape of the ever-evolving SDGs. Through orchestration, research areas could be highlighted and affected through a combination of *actor capabilities* and *learning*. The UNEP-WCMC, with their substantial influence was able to create a report that could be fed directly into decision-making practices of the GCRF. This was carried out through an effective network of intermediaries; namely through The Rockefeller Foundation and the NERC, so it could reach the decision-making arenas. Through orchestration, the report and subsequent message could reach these arenas, which would normally be blocked. Both intermediaries in this case possessed access to the GCRF at the board level and had the ability to influence. This is in stark contrast to the UNEP-WCMC, which in line with Abbott's O-I-T model had no direct

contact with any level of the GCRF. These factors have all contributed to the process of **policy learning**.

In direct response to the *research question*, orchestration has highlighted target areas of the SDGs that require additional focus. The affect this had on GCRF policies was an alteration in the organisation’s understanding of the complexity of the SDGs, achieved through *learning-orientated* means. The report and the *influence the actors could wield*, enabled a higher degree of comprehension to occur. Backed by the credibility of the UNEP-WCMC as authors and introduced by a fellow UK research council plus the Rockefeller Foundation, the report was “welcomed by the strategic advisory group of the Global Challenges Research Fund” (NERC, 2017).

So, how can we measure the degree of influence the orchestration has had on the GCRF’s policies? Orchestration has identified crucial components of the SDGs that require immediate attention. The immense second HUBs call focused on the core messages from the report. Table 6. Below shows the new focus areas of the second HUBs call. Highlighted are the core messages within the report that have been adopted for the research call.

Table 6: Core Goals of 2nd HUBs Call

GCRF HUBs call	
Call for challenges	Call for applicants
<ul style="list-style-type: none"> • Cut across SDGs. • Are resistant to change. • Challenges that <i>cannot</i> be solved by a single organisation, sector and discipline. • To consider the interactions and interrelatedness between the different challenges. 	<ul style="list-style-type: none"> • Capacity to think across between and within SDGs. • Clear understanding of how other disciplines can contribute. • An awareness of other underlying factors

Source: (Research Councils UK 2017)

Orchestration can be utilised to affect policy change if the conditions for change are favourable. Orchestrators can take advantage of their stature to influence policy to demonstrate where change is needed. As a governance mode it possesses the potential to affect far-reaching policy changes due to the stature of the orchestrator and strength of the intermediary.

5.3 Expansion of Theory

Conventional orchestration literature refers to a three-step process; orchestrator enlists an intermediary, through common values, to pursue an objective to meet both their means on a

target actor (Abbott and Snidal 2010; Abbott and Bernstein 2015). These all occurred in the research case.

The UNEP-WCMC worked through the Rockefeller Foundation and the NERC. Access to target actors was provided by the intermediaries. The fundamentals of the theory and subsequent literature, is that it is a mode of governance that is indirect and soft. UNEP-WCMC provides the ideational support that is crucial in affecting policy change, yet it possessed very little control following this process. After their initial involvement the UNEP-WCMC ceased playing an active role (Hale & Roger, 2014). Once they had to enforce and pursue the objectives, it relied heavily on the voluntary commitment of the intermediaries to follow through.

As stated in the introduction, orchestration is an underutilised tool for international organisations. This research has shown the practical benefits orchestration can have. Hale and Roger have commented on how organisations can reduce transaction costs through means of orchestration (2014). This thesis not only confirms this point, but also demonstrates that organisations can benefit from applying to contribute in such arrangements. The UNEP-WCMC was compensated for the completion of the report. For their part in the creation of the Global Goals Mapping Report, the authors were financially rewarded for their contribution (Interview D, 2017). This may make the utilisation of orchestration as a governance mode an *increasingly attractive proposition*. The UNEP-WCMC is an intergovernmental organisation heavily involved in biodiversity, the organisations website claims to utilise their “significant experience of supporting the biodiversity information needs of decision makers across a variety of sectors” (UNEP-WCMC, 2017). Other intergovernmental organisations hold similar capabilities. This presents a *unique opportunity*. International organisations can apply to carry out projects such as this case and not just provide input, but also benefit from doing this type of work.

Large philanthropic organisations such as the Rockefeller Foundation and the Gates Foundation possess huge financial capabilities and contacts, but lack the necessary experience and reputation to influence. This allows for the creation of a *symbiotic relationship*. The international organisations lack the resources of the intermediaries but possess the ideational and support systems to enable change. This report has shown that international organisations with considerable experience like the UNEP-WCMC can isolate work with major philanthropic organisations to indirectly affect change. Organisations with high levels of credibility and experience such as UNEP can apply to carry out reports such as this case to increase the influence they can exert. Their skills are highly valuable and this capability can serve to reduce the governing deficit faced by international organisations.

Abbott and Snidal have remarked about the ideational support that orchestrators offer to intermediaries as being significant (2010). In this case the intermediaries were able to utilise the report to meet their means due to the global standing of the UNEP-WCMC. This support was essential in shaping the report that was utilised as the tool to affect change.

This case has shown how orchestration can be seen as a governance mode that can bring about mutually beneficial outcomes. Much of the literature is focused on a top-down process with the majority of the benefits being seen from the perspective of the orchestrator. Yet, this bottom-up research has shown that the benefits can be *self-reinforcing*. The report has

enabled the UNEP-WCMC to influence while enhancing the intermediaries' (Rockefeller and NERC) ability to participate and influence. Moreover, by utilising the experience of the coalition of actors, the target actor (GCRF) has been able to learn how to effectively focus its SDG policy. All actors can therefore consider the influence of orchestration on policy change as a positive intervention.

Advocacy Coalition Framework was initially chosen as it is commonly used as a tool to assess policy change. Yet, in addition, this research has shown that it can be used for the measurement of orchestration. This mode of governance is such that it requires the presence of an orchestrator working in tandem, leading to the formation of a coalition. A coalition is defined as '**a temporary alliance working for combined action**' (Oxford English Dictionary, 2017). Orchestration is defined along this premise with a voluntary arrangement characterising the relationship between the coalition, orchestrator and intermediary (Hale and Roger, 2014). Moreover, this research not only expands the view of orchestration as a coalition, it also demonstrates how flexible the advocacy coalition framework can be, when measuring policy change.

This research adds further weight to the potential of the "**Transnational New Governance**" termed by Abbott & Snidal (2009; 2011 & 2012). The UNEP-WCMC, which lacks the strong hierarchical authority to dictate, has thoroughly benefited from the autonomy afforded to it in this case, while minimizing greatly the transaction costs (Abbott, 2011). To group this orchestration in line with Abbott's breakdown of orchestration as falling into two categories: directive or facilitative. This research can be described, as being facilitative in nature as the support provided was *ideational*. Support is provided through means of *steering* (Abbott & Snidal, 2010 and Henriksen et al 2017). This research has added weight to Ostrom's belief that the effects of polycentric governance are "slowly cumulating and can be expected to increase their contributions over time" (Jordan et al, 2015, p. 15). This case has exemplified the frequency with which orchestration is used as a means to affect policy.

This study has reinforced Bernstein's work that SDGs are fertile environments with which to orchestrate (2015). As stated in the introduction and supported by the literature, the SDGs high number (169) of targets encourage input from non-state actors. Orchestrators are presented with a vast selection of targets to influence in order to affect change. The high number highlights the need for input from non-state actors, while also increasing the likelihood of coherence being found with intermediaries.

5.4 Recommendations

This research has shown that orchestration can be utilised as a tool to affect policy change if the necessary conditions are in place. In this particular case, a *favourable political climate* and pro-SDG policies allowed policy to be altered. Additionally, besides a small brief, UNEP-WCMC and SSRP possessed the licence to construct the report in their desired direction. Governance through orchestration was possible due to a confluence of the stated conditions that enabled the final result. Orchestration in this case was carried out in an arena that was hospitable to SDG related input. Policy was not revolutionised but steered downstream. This project has demonstrated the ability orchestration possesses, to further a cause when the

appropriate conditions are in place. The governance mode possesses the ability to enforce change on a policy area that is already moving forward.

Within environmental and SDG related policies, orchestration is an effective tool due to the coherence felt between many non-state actors and member states (Abbott and Bernstein, 2015). To advance orchestration as a governance mode, it would be significantly aided by further research into how it can benefit all actors involved. Orchestration has been proven in this research to be effective in climate policy arenas, as it is a governance mode based on collective action. Thus, additionally research should be invested into the use of orchestration in other policy areas, where the momentum and favourable conditions exist for policy change: such as innovation and trade.

For intergovernmental organisations, this research presents an opportunity to utilise both their **networks and capabilities**. These organisations can make use of these resources to both enter arenas of change and to use their considerable experience to add weight to their participation. In this case, the *report itself* has been used as the tool with which to affect change.

The case in question was “designed in which to influence policy makers”. As stated in the results section this has been successful. Orchestration has been utilised as a means with which to affect policy change. It highlights the effectiveness that this form of ‘soft’ governance can have on policy without the expenditure of transaction costs. It has shown that policy change may occur up to a certain degree. The GCRF as target actor in this case had no contact with the UNEP-WCMC, thus the degree to which the orchestrator could affect change was limited to their input in the report. Orchestration was the tool to place change on the agenda but the ultimate decision rests with the target actor due to the indirect nature of the governance mode.

5.5 Limitations of Study

5.5.1 Case Selection

When conducting an exploratory research project such as this, a large amount of planning is required. Orchestration is a mode of governance that requires the presence of a number of parts acting in line with Abbott and Snidal’s theory (2010). Once the concept was fully understood, the identification of a case that matched the theoretical criteria began. This process took considerable time as connections with *three separate components* were sought.

5.5.2 Data collection

With any research there are naturally limitations and this study is no different. When dealing with subjects of influence and policy change, sensitivities must be considered. In order to reach the necessary individuals, an extended period of emailing took place. The number of people available, who could provide input into the particular case was also limited.

Policy change is a difficult process to identify, thus a degree of interpretation was carried out. Although not the most exacting process for measuring, it was deemed the appropriate tool in this case. The challenge faced was explaining how they were involved in the research. Orchestration being a relatively unknown term, was not helpful. Individuals were unaware of how they may be influenced or influencing another process. This presented challenges when initially engaging with prospective interviewees. During the interview process in order to achieve comparable answers, it was necessary to tailor the questions. It was not possible to ask interviewees similar questions due to their varying backgrounds.

Additionally, the literature consulted may have affected the methods used within the research. Orchestration literature is limited, and therefore confines the assessment of orchestration to a limited body of work.

5.5.3 Data Analysis

The Advocacy Coalition Framework was chosen as the appropriate tool to assess policy change. This framework is usually seen to gauge change over a decade long process (Sabatier, 1988). However, this research sought to isolate the **external and dynamic factors** that effect more rapid change. Although this framework was adapted, it was chosen as the most effective method to measure change, for reasons mentioned above, and its appropriateness for isolating policy learning (Schlager, 1995).

Through the method of **grounded theory**, the identification of the causal conditions posed a challenge. The different backgrounds of the interviewees complicated this process. The questions asked to the interviewees were tailored in order to both respect their backgrounds and to receive an appropriate answer. This was difficult and very often expanded into a long interview covering various topics and areas of interest. Though extremely interesting and revealing, at times this lengthened the coding process and ultimately the analysis of data.

6. Conclusion

Research Question: How has orchestration affected the policies of the Global Challenges Research Fund?

In order to answer the question above, a theoretical framework was formulated. This framework would be used to test the case with qualitative methods. Firstly, a thorough literature review was conducted to construct this framework. In the initial portion of this review, orchestration literature was heavily analysed. Following this analysis, a comprehensive understanding of when orchestration occurs, could be made.

The work of Kenneth Abbott on orchestration was leaned on heavily to guide the research. Three core conditions were identified for orchestration to be at work: **Legitimacy**, **Coherence** and **the presence of an Intermediary**. The second component of the literature review related to the measuring of policy change. Literature on policy change was analysed and following an assessment of the appropriate means to measure change, the *Advocacy*

Coalition Framework was chosen. Paul Sabatier's model was utilised. From this model the *external and dynamic* conditions that contribute to policy change were selected for the study. These conditions refer to more immediate forms of policy change and are appropriate to this particular case. Using these tools, an analytical framework was constructed in order to test the influence of orchestration against the parameters of the Advocacy Coalition Framework.

The next stage of the research, involved testing the constructed theoretical framework within an appropriate case study. Following an initial exploratory interview, and subsequent recommendation, a case was identified. This case study fitted the requirements laid out in the introduction. It was a case where orchestration had affected the SDG policies of an organisation. Once, the selection had been made and the actors identified, interviews were conducted. Two interviews were initially conducted to gain an insight into orchestration from the perspective of a member state (target actor) and that of an NGO (intermediary). Then three separate blocks of interviews were carried out with the *Orchestrator*, *Intermediary* and the *Target Actor*. This was done to test the motives of the orchestration; how it was utilised and the affect it had on the policies of the Target Actor (GCRF).

This research has shown how organisations can affect policy change by utilising their ideational resources to influence decision-making processes through *learning*. **Facilitative orchestration** is at the forefront of this research and it moves against the assertion that the governance mode is a combination of both directive and facilitative. This theoretical perspective has been put forward by Henriksen et al (2017). The results of this research fall firmly in line with those of Abbott and Snidal that orchestration occurs in one of these categories depending on the *tier* (2010). In this case, the literature has been supported that facilitative orchestration was effectively used within **the private-led tier**. UNEP-WCMC acting in this case as orchestrators, possessed *limited capacity* to influence, therefore relied heavily on their ability to alter policy through soft means such as *steering* (Abbott and Snidal, 2010).

Orchestration in this case has been an *extremely effective tool* with which to affect policy change considering the lack of political capital available to the orchestrators. The orchestration took place in a hospitable environment for the intervention to take place. This case has exemplified a key component in the *success of orchestration* is the access to decision making arenas. The intermediaries in this case were both *highly influential* in altering the focus of SDG research funding, and also being extremely motivated.

However, organizational policy decision-making was affected. It was determined that GCRF policy was affected by orchestration through means of *policy-orientated learning*. Orchestration has highlighted new areas of SDG focus that have been adopted by the GCRF in their future research endeavours. In order for this to occur it required suitable conditions. Policy change did not occur significantly in three of the conditions but they enabled a suitable environment for change to occur in the **learning condition**. Thus, orchestration by the UNEP-WCMC did affect the policies of the GCRF.

To conclude, it can be determined that orchestration can be used as a tool to affect policy change when a window of opportunity exists. The governance mode can be effectively used to *steer policy rather than revolutionise policy change*.

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