“Building a plane while flying”

A qualitative case study inquiry into the Green Climate Fund and its potential to finance climate adaptation effectively

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MSc thesis

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ERASMUS UNIVERSITEIT ROTTERDAM

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A qualitative case study inquiry into the Green Climate Fund and its potential to finance climate adaptation effectively

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Summary

The focus of this study is on international climate finance for adaptation. Climate finance refers to the financial resources mobilised to support developing countries to mitigate and adapt to the impacts of climate change. Climate finance for *adaptation* consists of investments to adjust to actual or expected negative impacts of climate change, such as increasing risks of floods and droughts. Developing countries are most vulnerable to the consequences of climate change, although they have contributed less to global warming. Therefore, developed countries have agreed to contribute financially to adapt these countries to climate change.

This research consists of a single case study of the Green Climate Fund (GCF): a multilateral institution under the financial mechanism of the Paris Agreement. It is expected to play a major role in providing finance for climate adaptation. This study investigates whether the features of the GCF are expected to lead to effective climate adaptation finance. The methodology draws upon semi-structured interviews with actors that participate in the Fund: contributing countries, recipient countries, Civil Society Organisations (CSOs), the private sector and implementing entities, complemented by document analysis. The fragmented nature of the climate finance architecture and the complex character of adaptation are assumed to challenge the potential of the GCF to finance climate adaptation effectively.

The analysis assesses four main policy features of the GCF, respectively (1) private sector engagement; (2) country ownership; (3) scaling-up adaptation finance; and (4) addressing the needs of the most vulnerable countries. A consistent definition of effective climate adaptation finance is not available in the literature. Therefore, this study develops a framework of climate finance effectiveness for adaptation. In short, effectiveness depends on whether the features add to the *availability* of climate finance; whether they enhance the *accessibility* of adaptation finance for developing countries; and whether adaptation finance is *used effectively* on the ground. Since different actors have different views of what effectiveness means, their perceptions are measured.

The outcomes show that fragmentation and the complex character of adaptation constrain effectiveness under the conditions that capacity is lacking in developing countries and in the governing bodies of the GCF. Capacity refers to the inability of developing countries to design high quality funding proposals and the incapability of the GCF secretariat to give guidance on this aspect. Policy recommendations direct to capacity building in developing countries and within the GCF. Moreover, it can be learned from this study that effectiveness is highly context dependent. A recommendation for future research is therefore to take into account contextual factors, such as good governance or the economic conditions in specific countries or regions.

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Abbreviations

AE	Accredited Entity
AF	Adaptation Fund
CIFs	Climate Investmend Funds
CoP	Conference of the Parties
CSO	Civil Society Organisation
CTF	Clean Technology Fund
FIP	Forest Investment Programme
GCF	Green Climate Fund
GEF	Global Environmental Facility
GI	Governing Instrument
GPG	Global Public Good
LDC	Least Developed Country
LDCF	Least Developed Country Fund
MDB	Multilateral development bank
NDA	National Designated Authority
PPCR	Pilot Programme for Climate Resilience
SCF	Strategic Climate Fund
SCCF	Special Climate Change Fund
SID	Small Island Developing State
SREP	Scaling Up Renewable Energy Programme
UN	United Nations
UNEP	United Nations Environmental Programme
UNDP	United Nations Development Programme
WB	World Bank

1. Introduction and background

1.1. International efforts to adapt to climate change

Adaptation to climate change has become one of the most urgent priorities of the international community. Developing countries are most vulnerable to the consequences of climate change, although they have contributed less to global warming. Developed countries have therefore agreed to contribute financially to adapt these countries to climate change (UNEP, 2016). The Paris Agreement emphasises the importance of adaptation finance, stating that developed countries shall "assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation." (Paris Agreement, 2015: art. 6.6.).

Climate finance refers to the financial resources mobilised to support developing countries to mitigate and adapt to the impacts of climate change (Nakhooda, Watson & Schalatek, 2013). Climate adaptation finance consists of investments to adjust to actual or expected negative impacts of climate change, such as the increasing risks of flooding and droughts. Mitigation finance refers to investments that aim to reduce emissions of greenhouse gasses (UNEP, 2016). Climate finance is channeled through multilateral and bilateral climate funds, with different actors from a public and private nature participating in these funds (Nakhooda et al., 2013). As the term 'funding' only refers to grant-based finance and these funds use a broader range of financial instruments - such as concessional loans and equity - this research will refer to 'climate finance'. Moreover, the focus of the research is on multilateral funds and on finance for climate adaptation. Different multilateral climate funds exist under the United Nations Framework Convention on Climate Change (UNFCCC), which is the first established convention on global climate change signed in 1992. Figure 1. and Table 1. show the different multilateral climate funds under the UNFCCC and the Climate Investment Funds (CIFs) that are governed by the World Bank.

Climate change adaptation or climate adaptation refers to all measures that countries or individuals can take to reduce the impact of climate change. A wide range of measures can be thought of which vary from structural interventions to keep storm surges at bay, changes to more drought-resistant seeds, or insurance schemes for quick recovery or migration to areas less influenced by climate change. The difficulty with climate change adaptation measures is that it is uncertain how the climate will develop and how much adaptation will be required. Another feature of climate change adaptation is that it largely concerns (local) public goods such as flood protection, which requires government action. A third dilemma is that many developing countries have more pressing needs than to prepare for uncertain future changes, no matter how disruptive they may be.

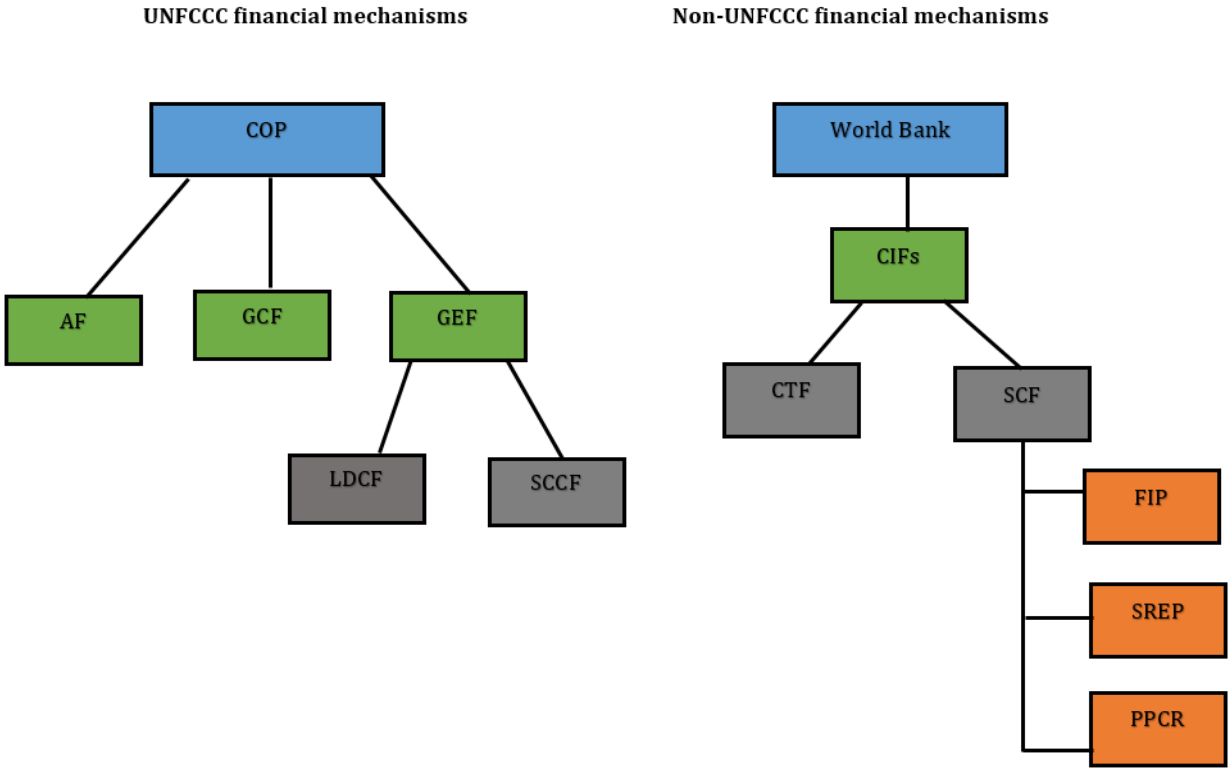

Figure 1. Multilateral climate finance architecture under the UNFCCC and beyond (simplified overview). Source: Adapted from Climate Funds Update (n.d.). Available at: http://www.climatefundsupdate.org/about-climate-fund/global-finance-architecture (last accessed on 17-06-17).

Acronym	Explanation
COP	Conference of the Parties
AF	Adaptation Fund
GCF	Green Climate Fund
GEF	Global Environmental Facility
LDCF	Least Developed Country Fund
SCCF	Special Climate Change Fund
CIFs	Climate Investment Funds
CTF	Climate Technology Fund
SCF	Strategic Climate Fund
FIP	Forest Investment Programme
SREP	Scaling Up Renewable Energy Programme
PPCR	Pilot Programme of Climate Resilience

Table 1. Multilateral climate finance architecture under the UNFCCC and beyond. Acronyms explained.

The ultimate preferred societal outcome of multilateral financing for climate adaptation is that the implementation of measures in developing countries increases their capacity to adapt to climate change. This means that proposed adaptation activities should be effective. At the UNFCCC's Conference of the Parties (CoP) 16 in Cancun (2010), the CoP decided that the *Green Climate Fund* (GCF) would become the main multilateral fund to channel international public and private contributions to support mitigation and adaptation activities in developing countries (UNFCCC, 2010). Effective climate adaptation forms the core of the mandate of the GCF, which is to "operate in a transparent and accountable manner guided by efficiency and effectiveness" (UNFCCC, 2011: 4). This research focuses on the GCF and its expected potential to finance climate adaptation effectively.

1.2. Governance structure of the Green Climate Fund

The Green Climate Fund is a multilateral climate fund that is established under the UNFCCC agreements in 2011. It serves as operating entity under the financial mechanism of the UNFCCC and became fully operational in 2015 by approving USD 168 million for the first eight projects just weeks before the CoP21 (Nakhooda et al., 2013). CoP21 has resulted in the Paris Agreement, which asks for joint support of developed countries[1] to provide USD 100 billion each year from 2020 on to support mitigation and adaptation activities in developing countries, coming from public and private sources (UNFCCC, 2015). Consequently, the GCF is expected to become the major finance channel under the UNFCCC (OECD, 2015).

The GCF is governed by a 24-member board, in which the seats are equally divided between developed and developing countries. The board is mandated to approve project proposals for mitigation or adaptation activities in developing countries. The day-to-day executive activities are the responsibility of the secretariat, which is accountable to the board (GCF, 2011: art. 9). Finance is disbursed project-wise to developing countries and can only be applied for by implementing entities that are accredited with the fund. These are called 'accredited entities' and vary from multilateral development banks (MDBs), private banks, United Nations (UN) agencies, regional or national organisations (GCF, 2011: art. 45). Organisations must go through an accreditation process that is designed by the GCF. One of the main features of the GCF is the country-driven approach, meaning that the accredited entities design project proposals in consultation with the

[1] See for an overview of contributing countries the UNFCCC list of annex I countries. Available at: http://unfccc.int/parties_and_observers/parties/annex_i/items/2774.php (last accessed at 18-06-17).

recipient country (CCF, 2011: art. 31). The recipient country has the possibility to appoint a National Designated Authority (NDA), which is usually a ministry that functions as an intermediate between the GCF board and secretariat and the recipient country. Only contributing and recipient countries in the board are mandated to make decisions about the allocation of funding. Non-state actors are part of the governance structure of the Fund as observers: the GCF has two observer-seats from the Civil Society Organisations (CSOs) and two observers from the private sector, equally divided between developed and developing countries (GCF, 2011: art. 16).

The 'Governing Instrument', hereafter called 'GI', is the founding document of the GCF and describes its mandate and policy objectives (GCF, 2011). The GI is the outcome of multilateral negotiations between states that differ in their opinions of which policies (input) will lead to effective climate adaptation (outcomes). Consequently, the decisions that are documented in the GI are broad and leave room for interpretation. This study focuses on four main features of the GCF, respectively (1) engaging the private sector for adaptation finance; (2) country ownership; (3) scaling-up adaptation finance and (4) addressing the needs of most vulnerable countries. These features will be elaborated upon in chapter 2.

There are several challenges these features of the GCF are expected to overcome. First of all, the amount of finance that is currently available is insufficient. The international community speaks of a 'finance-adaptation gap', because adaptation costs are at least two to three times higher than the international public financial resources available, and this deficit is expected to grow (UNEP, 2016). A proposed way to attract more climate finance is to create synergies between public and private finance. Although several reports of the main international institutions emphasise the lack of financial resources (UNEP 2016; OECD 2015), the availability of funding is not the only problem. Funding should also be easily accessible for developing countries (Amerasinghe, Thwaites, Larsen & Ballesteros, 2017). Moreover, it is the question whether the money, once available and accessible, is used effectively on the ground (Ellis, Caruso & Ockenden, 2013). However, what is perceived as 'effective' differs between the types of actors that participate in the GCF (Ellis et al., 2013).

1.3. The fragmented world of international climate finance

The diversity of actors that participate in the GCF indicates that the international climate finance architecture of which the GCF is part is characterised by 'fragmentation' (Pickering, Betzold, Skovgaard, 2017). The concept of fragmentation can be defined in the general global governance architecture as "a patchwork of international institutions that are different in their character (organisations, regimes and implicit norms), their constituencies (public and private), their

spatial scope (from bilateral to global) and their subject matter (from specific policy fields to universal concerns) (Biermann, Pattberg, Zelli & Asselt, 2009: 16). In this thesis, the GCF will be perceived as a fragmented institution, whereby fragmentation occurs on three levels: institutions, norms and actor constellations (Biermann et al., 2009). With regard to institutions, the GCF exists next to other funding mechanisms which each have their own decision-making system. Consequently, overlap occurs between different international funds that share the same objectives (Nakhooda et al., 2014). Concerning norms, developed and developing countries have different preferences for the outcomes of adaptation projects. Moreover, the interest of the private sector to achieve a quick return of investments clashes with the public character of adaptation measures (Pauw, Klein, Vellinga & Biermann, 2016). Finally, fragmentation between actor constellations occurs in the GCF as not all the developing countries have a direct say in the main decision-making structures and not all local actors are committed to the same extent on the implementation level.

1.4. Objective, research question and approach

Several scholars state that the climate finance architecture is fragmented of nature (Biermann, Zelli & Asselt, 2009; Young, 2011; Pickering et al., 2017), but it has not been studied yet what fragmentation implies for the effectiveness of climate adaptation finance and more specifically for the case of the GCF. As Pickering et al. (2017) conclude in their article *managing fragmentation and complexity in the emerging system of international climate finance,* the GCF is created as the flagship multilateral climate fund to reduce or at least manage fragmentation. This thesis states it is questionable whether the features of the GCF could lead to effective climate adaptation finance, for two main reasons. First of all, the GCF is a fragmented institution in itself. The GCF is developed within a fragmented institutional architecture, dominated by different norms and values with regard to effectiveness. Secondly, the characteristics of adaptation could constrain the potential of the GCF to finance adaptation effectively. Adaptation is characterised by uncertain cause-effect relationships and long-term effects, which make collective action for adaptation measures on a global scale difficult. This explorative research aims to investigate whether the features of the GCF are likely to be effective. It is thereby assumed that fragmentation of the climate finance architecture and the complex character of adaptation constrain the features of the GCF to finance climate adaptation effectively. From this objective follows the central research question:

Can the features of the Green Climate Fund be expected to lead to effective climate adaptation finance?

The research question will be answered with a qualitative case study design, based on semi-structured interviews and a document analysis of (policy) reports that present the viewpoints of

respondents and documents about how the GCF operates. Up until now there has not been a consistent definition of climate finance effectiveness for adaptation in the literature. This is mainly due to the fact that the concept of effective climate adaptation finance is interpreted differently by different actors (Ellis et al., 2013). Consequently, there is no objective threshold to measure 'effectiveness' and for that reason the concept will be measured through the perceptions of different actors that participate in the GCF, respectively contributing countries, recipient countries, implementers (accredited entities), CSOs and the private sector. Analysing whether their views align or misalign leads to a deeper understanding of *why* the features of the GCF are expected to be effective or not and opens up for knowledge dissemination of how fragmentation can be managed. Figure 2 illustrates the relationship between the central variables of this research.

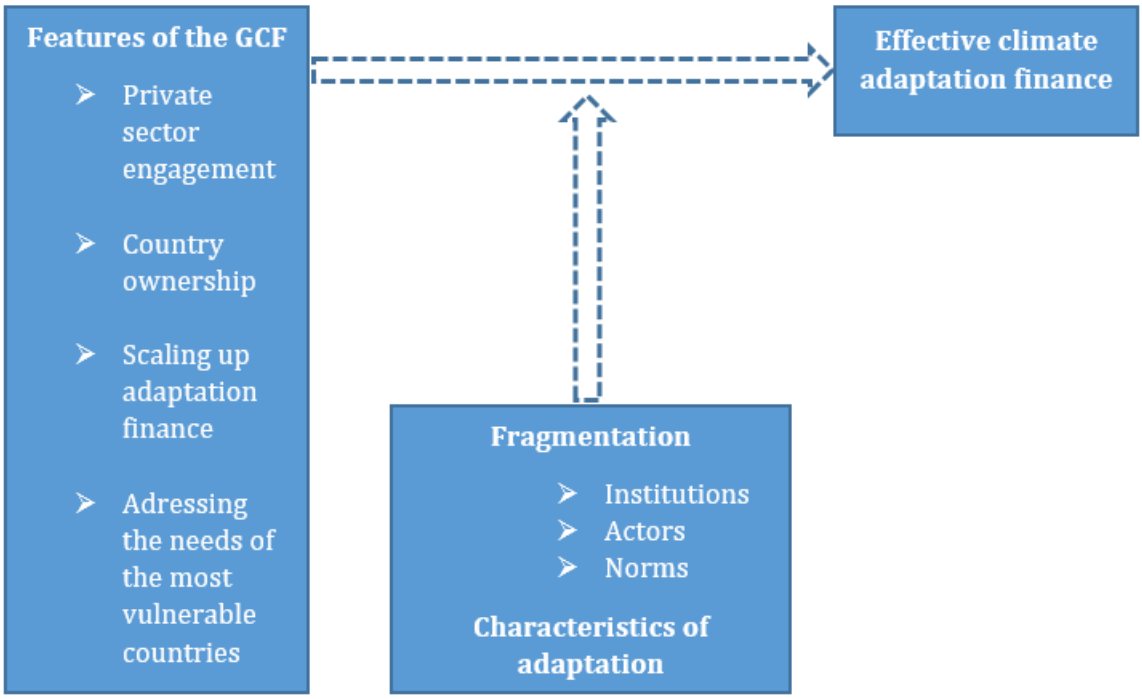

Figure 2. Expected relation between features of the GCF and effective climate adaptation finance.

1.4.1. Societal relevance

Climate adaptation in developing countries has become a political priority of the international community, as these countries are most vulnerable to climate change, but lack the capacity to adapt (OECD, 2015). Addressing the urgency of increasing adaptation finance and emphasising the need for effective delivery is therefore relevant (UNEP, 2016). The GCF is expected to play a major role, as it is the most recent established multilateral fund. Moreover, it is the first fund with a mandate stating that 50% of the Fund's financial resources should be spent on adaptation

measures in developing countries and 50% on mitigation (GCF, 2011: art. 50.). The increasing focus on adaptation is declared in the Paris Agreement (art. 9.4), emphasising the urgency of measures to protect the most vulnerable countries against climate disasters. Moreover, bilateral climate finance tends to be spent more often on mitigation projects, so multilateral funds are expected to play an important role in increasing finance for adaptation (Amerasinghe et al., 2017: 52). Seen from the fact that adaptation finance is mainly grant-based, it requires that the GCF takes efforts to increase funding pledges from developed countries.

The processes in the GCF are sometimes referred to as "building a plane while flying", because its policy features do not seem fully crystallised yet (GCF, 2015a). Analysing effectiveness now, while there is still room for improvement, could contribute to the further building of this plane. This thesis provides a deeper understanding of the different perceptions that actors have regarding climate finance effectiveness. It aims to overcome a 'dialogue of the deaf', as the first step to reaching common solutions is to understand each other's perception of the problem. The outcomes can be used to raise the awareness of policy makers and more importantly, to support them in making the GCF function more effectively.

1.4.2. Academic relevance

This study builds on the idea that climate finance has increasing scholarly attention, but is not studied systematically. Indeed, as Pickering et al. (2017) state, the emerging climate finance architecture remains under-researched and under-theorised. This thesis addresses a number of flaws in the current scholarship on climate finance, thereby contributing to the academic debate in three ways.

Firstly, this study provides a more coherent definition of effectiveness for climate adaptation finance than currently exists in the literature. While previous studies have acknowledged that fragmentation could have consequences for effectiveness, the bulk of literature up to date has failed to properly define what effective climate finance entails. Scholars often speak of climate finance effectiveness in general without distinguishing between adaptation and mitigation (Ellis et al., 2013; Nakhooda et al., 2014). However, the characteristics of adaptation, which are more uncertain than mitigation, call for a distinctive understanding of effectiveness for adaptation. Moreover, the current literature mainly revolves around several aspects of effectiveness in isolation and from a single perspective. For example, articles focus on the question of access (Marston, 2013), the role of the private sector (Pauw, Klein & Vellinga, 2016; Pauw, 2017), stakeholder inclusion (Schalatek, 2013) or the discussion on mainstreaming climate and development (Klein & Möhner, 2008). This thesis instead offers a comprehensive and integrative approach of climate finance effectiveness for adaptation.

Secondly, it provides insights of *why* norm fragmentation in multi-stakeholder governance occurs. In the existing literature the divergence of preferences is often perceived as a given. This is exemplified in the North-South divide between developed and developing countries (Abbott & Garner, 2011), or with regard to private sector norms (Pauw et al., 2016). This study aims to provide an answer to why different actors have different norms and preferences. In doing so, the outcomes can add to the broader context of the aid landscape that is dominated by the North-South divide and the broader context of multi-stakeholder governance, in which state and non-state actors have different perceptions of the problems at hand (Andonova, Betsill & Bulkely, 2009).

Finally, this thesis adds to the literature of financing global public goods (Molle, 2014; Ostrom & Ostrom, 1977) by particularly focusing on the challenges involved in adaptation finance.

1.5. Thesis outline

In the following chapter, the concept of 'effective climate adaptation finance' will be defined and the features of the GCF in the context of the existing multilateral climate finance architecture will be presented. The theory section (chapter 3) provides explanations of why the features of the GCF are not likely to lead to effective climate adaptation finance. The chapter concludes with hypotheses that will be further operationalised in the methodological section (chapter 4). Moreover, chapter 4 justifies the choices and shortcomings of the research. Chapter 5 presents the results of the interviews and document analysis. In the discussion (chapter 6), the outcomes of the research are explained in the light of other research, the methodological limitations of the research are addressed and recommendations for further research will be given. The conclusion (chapter 7) ends with the main policy recommendations.

2. Effective climate adaptation finance and GCF features

To provide a more coherent conceptualisation of effectiveness of climate adaptation, the first part of this chapter focuses on what can be understood as 'effective climate adaptation finance' (2.1). The second part of this chapter lists the main features of the GCF that aim to achieve effective climate adaptation finance (2.2). This thesis assumes that it is questionable if these features will lead to effective climate adaptation finance. Paragraph 2.3 elaborates on this latter conclusion and paves the way for the assessment of this expectation. Before turning to the definition of effectiveness of climate adaptation finance, an explanation is given of why the international community provides the global public good of climate adaptation finance in the first place.

States are pressured to collaborate on the international level to provide global public goods (GPGs), which have the characteristics that they are non-rival and non-excludable in nature (Molle 2014; Ostrom & Ostrom, 1977). Non-rivalry means that provision of the good to one individual or group does not lead to a lower availability of the good for others, while non-excludability implies that no one can be excluded from the consumption of the good. Since international climate finance for adaptation is limited, this implies that a grant that is contributed to one developing country cannot be contributed to adapt another country to climate change. This makes climate adaptation finance rivalrous. Furthermore, if climate adaptation finance is provided to developing countries' governments that consequently will not make adaptation measures available for all parts of their countries, it means people can be excluded from this good. From this analysis follows that climate adaptation finance is not a GPG in theory. Rather, some scholars consider adaptation finance as a national, local or regional public good, for which national governments bear responsibility (Pickering, 2017). However, it is the responsibility of developed countries to finance adaptation interventions in developing countries. According to the 'common but differentiated responsibility principle', it is the developed countries that have contributed to climate change and therefore need to compensate developing countries that are most vulnerable and have the least capacity to adapt (Klein, 2010). The international community has committed to providing climate finance to developing countries, because developed countries bear responsibility and only collective action on the global level can fight the public bad of climate change (Molle, 2014).

This thesis argues that although adaptation does not match the definition of a GPG, the financing of adaptation in developing countries can be treated as a GPG. It will therefore build on the theory of collective action in the field of GPGs to provide a better understanding of the factors that inhibit effective climate adaptation finance.

2.1. Effectiveness of climate adaptation finance

In defining effectiveness of climate adaptation finance, three dimensions will be discussed, respectively the extent to which climate finance is available (2.1.1), the extent to which climate finance is accessible (2.1.2.) and the extent to which climate finance is used effectively (2.1.3.). The first two dimensions of effectiveness are based upon a literature review of policy reports and academic articles assessing the effectiveness of the climate finance architecture. The third dimension is based on academic literature that more broadly discusses economic effectiveness, social effectiveness, environmental effectiveness and the institutional fit with the domestic context as elements of effectiveness.

2.1.1. Availability of finance

The 'finance-adaptation gap' report of UNEP[2] assesses the difference between the financial costs of adapting to climate change in developing countries and the money actually available to meet these costs (UNEP, 2016). Efforts of the international community to increase funding are translated into the CoP's goal to "mobilise 100 billion USD a year by 2020 from a variety of sources, public and private, bilateral and multilateral, including alternative sources of financing, to support climate change adaptation and mitigation actions in developing countries" (UNFCCC, 2010). Article 9.4 of the Paris Agreement calls for a balance between adaptation and mitigation finance (UNFCCC, 2015). As most finance is currently spent on mitigation measures, this effort is aimed at bridging the finance-adaptation gap (UNEP, 2016).

The basic condition for effective climate adaptation finance thus is that financial resources are *available.* A proposed way to increase funding for adaptation is to mobilise, leverage or catalyse private finance (GCF, 2011). Increasing availability of finance from private sources touches upon a large debate on the challenges and desirability of private funding for adaptation (Gomez-Echeverri, 2013; Schalatek, 2012). The main barrier to private sector finance lies in 'market imperfections', such as benefits for society that are not captured by the financial return and the lack of longer-term credit that is necessary for long-term adaptation investments. Moreover, information with regard to climate impacts on the economy is unavailable or unequally distributed among different actors (UNEP Finance Initiative, 2016). The 'private sector' can be defined as private investors on the international level and the private enterprises on the domestic level (UNEP Finance Initiative, 2016). While the domestic public sector in developing countries is extremely exposed to physical risks of climate change, they lack the means to adapt. On the other hand, private investors often lack the incentive to invest in in climate adaptation projects, as

[2] UNEP is recently renamed as 'UN Environment'.

immediate costs are for the investor, while the benefits remain to the public domain (Pauw, 2017: 57). There remains a role for policymakers to eliminate market imperfections, which can be done by either eliminating barriers by providing more accurate information on climate impacts, or compensate for risks through provision of guarantees or subsidies and grants (UNEP Finance Initiative, 2016). Besides challenges, there is also the discussion of desirability. One can question the desirability of private sector involvement, as the market's emphasis on economic profitability and efficiency will not lead to investments in intangible benefits, such as improving social cohesion, conflict prevention and gender-equality. Therefore, public investment remains necessary to improve the quality of finance for adaptation and to protect the most vulnerable (Schalatek, 2012: 955).

In sum, attempts to increase the availability of finance for adaptation from private sources can be questioned, as the uncertain character of adaptation makes investments unattractive and a market mentality might lead away from intangible co-benefits of climate adaptation. With regard to the GCF, it is doubtful whether the dependency on the private sector to finance adaptation is likely to increase the availability of climate finance. This requires further research.

2.1.2. Accessibility of finance

Amerasinghe et al. (2017) mention the 'ease of access' to finance for developing countries as a determinant of climate finance effectiveness. They refer to the complex procedures of funds to become eligible and to apply for funding and the number of implementing entities through which access can be gained (2017: 47). Amerasinghe et al. (2017) state that the proliferation of several climate funds has led to inefficiency in channeling and delivery of finance. This can be exemplified with Tenzing's research (2016) on the Least Developed Country Fund (LDCF), an adaptation fund under the United Nations Global Environmental Facility (GEF). She concludes that the large amount of agencies involved complicates the institutional arrangements for developing countries. To access funding from the LDCF, developing countries need to choose out of 18 global agencies[3] without knowing how these agencies will manage their resources or implement projects (Tenzing, 2016). Sovacool, Linner and Klein (2016: 219) arrive at the same conclusion about the LDCF, quoting developing countries that describe the bureaucratic procedure in which several implementing agencies are involved as an "administrative nightmare". Since the GCF is proposed to become the main mechanism to channel climate finance, but at the same time is yet another fund in the existing architecture, it is relevant to assess how the features of the GCF are expected

[3] Examples of implementing agencies are the United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), Multilateral Development banks such as the World Bank, Asian Development Bank and African Development Bank (Tenzing, 2016).

to influence the accessibility of climate finance for adaptation. Besides availability, effectiveness thus depends on the *accessibility* of climate finance.

2.1.3. Effective use of finance

Effectiveness of climate finance is not only about the access to and availability of finance, but also about the extent to which finance is used in the right way. Since climate finance should lead to sustainable adaptation measures on the ground in order to be effective, 'effective use' of climate finance can be defined as the extent to which climate adaptation projects lead to environmental, economic and social sustainable development (Goodland, 1995). Furthermore, for effectiveness it is pertinent that projects are actually realised and well-maintained, which requires an institutional fit with the domestic context (Newig & Fritsch, 2008). The first three dimensions are based on the trilogy of Goodland (1995: 3):

Economic sustainability

When a measure is economically sustainable, it means that capital is maintained or kept intact and investments lead to returns instead of losses. Economic sustainability in adaptation projects could mean that projects boost employment in developing countries by creating jobs. From an economic standpoint, values are expressed in money only and do not pay attention to natural capital and intangible results. Since the effectiveness of an intervention does not only depend on the impact on the economy, but also on the impact on the people and planet, it is important to look at the social and environmental aspects of sustainability as well.

Social sustainability

Social sustainability, also called 'moral capital', refers to the effects of a measure on the well-being of citizens. A measure that is socially sustainable contributes to the social protection of the most vulnerable groups in society. Adaptation measures could contribute to the living conditions of vulnerable communities, because they for example result in drought-proof agriculture that again leads to a higher provision of nutrition in the area.

Environmental sustainability

Environmental sustainability can be defined as the protection and conservation of ecosystems and biodiversity. An example of an environmentally sustainable measure is 'ecosystem-based adaptation'. The Convention on Biological Diversity defines ecosystem-based adaptation as "the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people to adapt to the adverse impacts of climate change" (Convention on Biological Diversity, 2009). Examples of ecosystem-based adaptation measures could consist of the use of mangroves for

flood protection. This has a positive environmental impact compared to hard infrastructure measures, such as dams and dikes, which can have negative environmental consequences (Jones, Hole & Zalaveta, 2012). Environmental sustainability is closely related to social sustainability, as there can be no social sustainability without environmental sustainability: human welfare depends on the protection of the natural resources that are used for human needs.

Institutional fit with the domestic context

It is indispensable that adaptation interventions are well-maintained after implementation. In addition to economic, social and environmental benefits, effective use can therefore be determined by the extent to which adaptation measures pay attention to the institutional fit with the environment in which the project will be implemented (Newig & Fritsch, 2009). The institutional fit thus forms a condition for the other outcomes to be sustainable. The difference with social sustainability is that the institutional fit looks more at the match with the domestic institutions, such as national policies and regulations, while social sustainability is a more intangible aspect that is about the well-being of local communities. These two do not necessarily align, because the link between domestic policies and the well-being of civil society depends on factors such as 'good governance' within a developing country (Molle, 2014).

Figure 3 summarises the dimensions of effectiveness:

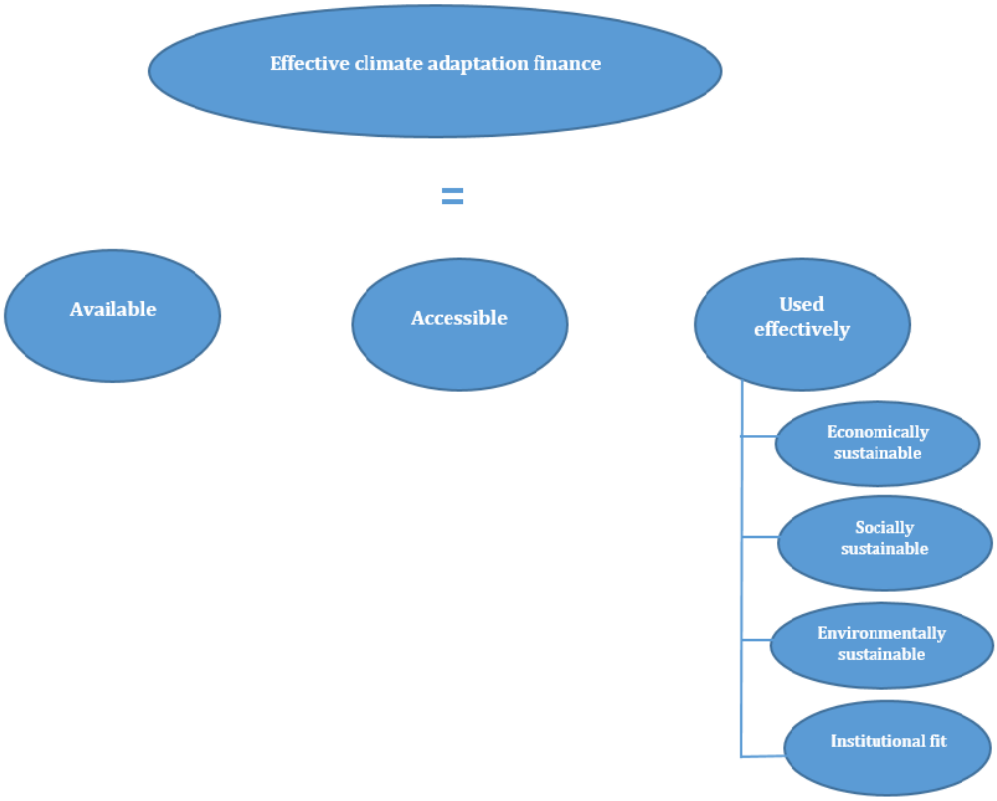

Figure 3. Dimensions of effective climate adaptation finance.

Central to this study are the perceptions of actors regarding how a measure could lead to a desired outcome. The importance of these different perceptions can be explained through Young's (2011) definition of 'effectiveness of environmental regimes'. Effectiveness can be defined in terms of 'the problem-solving capacity' of a regime, which is measured through the extent to which regimes contribute to solving or mitigating the problems that "motivate those people who created the regime" (Young, 2011: 2). Young states that actors differ in the importance they attach to problems and differ in the way they frame policies (Young, 2011: 2). Therefore, these norm differences should be taken into account while analysing the effective use of climate finance.

It is outside the scope of this research to assess the effectiveness of measures in terms of the actual outcome, because the methodologies and objectivity of such measurements are disputed (OECD, 2015). Moreover, in the case of the GCF it is not possible to analyse the implementation and monitoring and evaluation yet, as the Fund became operational in November 2015 and projects are not at a far stage of implementation. The GCF has approved 43 projects in total by 2017, of which only one project is in the stage of implementation (GCF, n.d. (a)). Figure 4. illustrates the different stages of the adaptation policy cycle. The scope of this research limits itself to stage 1 until 3.

Figure 4. Adaptation policy cycle. Adapted from UNFCCC (2016). Available at: http://unfccc.int/adaptation/items/7006.php. (Last accesed 18-06-2017).

2.1.4. Norm differences regarding effective use of climate finance

Ellis et al. (2013) conclude that the 'climate community' and 'development community' have different views on effectiveness of climate finance. They distinguish the climate community as "those actors involved in UNFCCC negotiations, including both developed and developing countries" and the development community as "developed and developing countries in negotiations regarding aid effectiveness" (2013: 9). This research will look at the norms of developed and developing countries *within* the climate community, because a general divide exists between norms and values of contributing countries and recipient countries (Abbott & Garner, 2011). The remaining part of this paragraph elaborates on the general divide between developed and developing countries. In addition, it will be explained that non-state actors, such as CSOs and the private sector, also have distinct norms and values.

Effective climate finance for adaptation is not only difficult because adaptation needs and effects are hard to measure on the short-term. Complexity is also caused by the finance negotiations as a multilateral process, characterised by North-South divisions that have different preferences regarding how climate adaptation finance should be used in order to be effective (Abbott & Garner, 2011). At the creation of the GCF, Abbott & Garner (2011) already predicted that the internal divide between North and South will make it difficult to achieve its mandate to attract public and private resources to finance climate adaptation. While their study assessed this in the design stage of the GCF, this thesis assesses the GCF in its operational phase and provides empirical evidence of how policies work in practice.

Contributing countries: prioritising climate impact

Contributing parties to the UNFCCC tend to be focused on the attraction of (alternative) sources of finance and emphasise the need for transparency of financial flows (Pauw et al., 2016). This could be explained by the climate commitment of contributing countries to mobilise USD 100 billion a year from 2020 (OECD, 2015). The lack of clear accounting rules for climate finance for adaptation on the international level makes it difficult to determine when finance is flowing from multilateral institutions to the developing countries. Since contributing countries feel politically accountable to their domestic constituencies to fulfill their climate commitment and this climate commitment must be additional to foreign aid commitments, there is a need to make the climate impact of projects visible (Zadek, 2011).

Recipient countries: prioritising development

From the perspective of recipient countries, climate adaptation projects must ideally fit within broader development goals (Ellis et al., 2013). Pro-poor development is crucial to effective adaptation (Klein, 2010). This is translated in the need to 'mainstream' climate adaptation into

development, which refers to the process of integrating climate adaptation within broader development goals, planning and decision-making, thus constituting an 'institutional fit' with the environment in which the intervention takes place. In order to be effective, technical measures need to be accompanied by non-technical measures that affect the livelihoods of local communities, such as health, education and economic development (Klein, 2010: 38). However, mainstreaming can have a negative effect on the accountability of finance, as the unclear distinction between finance for adaptation and finance for development raises questions about which part of a project is to be funded by climate funds and which part belongs to development, of which the latter is the recipient country's responsibility and funded through Official Development Assistance (ODA) (Klein & Möhner, 2008). The relationship between contributing and recipient countries within the climate finance architecture must be distinguished from the one of donor and recipient countries within development aid. According to the 'Common but Differentiated Responsibilities' principle, recipient countries do not only receive funding because they rely on contributing countries for their well-being, but more because they are not responsible for climate change (Molle, 2014). From an equity perspective, it is important for developing countries that developed countries contribute to make them less vulnerable to the effects of climate change, regardless of aid budgets. To have a viable debate on the issue of mainstreaming, the question whether adaptation and development are interlinked should be distinguished from the question of 'which financial mechanism should be used to finance an adaptation measure'. Scholars and policy makers seem to have consensus on the first question, but the discussion has not resulted in a consensus concerning how integrated projects can consequently be financed.

The aforementioned shows that several scholars describe the main divide between developed and developing countries in that the first tend to strive for accountability of expenditure and mobilising private sector finance, whereby the latter opt for ownership by fitting projects within their broader development goals (Pauw et al., 2016; Abott & Garner 2011; Ellis et al., 2013). However, the existing literature fails to articulate *why* norms differ. This thesis intends to explain why norms differ through its focus on perceptions of different actors.

In addition to state actors, non-state actors, such as CSOs and the private sector also have their own perception of effective use of climate finance. While the private sector focuses on cost-effectiveness of measures, CSOs tend to focus on the pro-poor and green character of measures, which they see as interlinked because poverty is the root cause of ecosystem degradation (Pérez, Fernández & Gatti, 2010: 112). Although they do not have decision-making power in the GCF, the private sector and CSOs influence the policies through intensive lobby.

Due to the North-South divide and influence of non-state actors that have diverging norms and values, the Governing Instrument (GI) of the GCF is the outcome of a process of intergovernmental negotiations. The GI introduces several policy features that aim to enhance effective climate adaptation finance. In the next section, the main features of the GCF will be presented.

2.2. Features of the Green Climate Fund

As most recent operational entity of the financial mechanism of the UNFCCCC, the GCF is set up in a way it aims to improve the current climate finance architecture. This section describes its main features in the context of the existing climate finance architecture. These features are based on the Governing Instrument, the founding document of the GCF. Based on a literature study of several policy reports, the following policy objectives of the GCF can be perceived as the main features to enhance effective climate adaptation finance: (1) engaging the private sector for adaptation finance; (2) country ownership; (3) scaling up adaptation finance; and (4) addressing the needs of the most vulnerable countries. Each of these features is discussed below.

2.2.1. Private sector engagement for adaptation finance

The objective of the GCF to increase the availability of funding has resulted in the establishment of the Private Sector Facility (PSF), which has the mandate to directly and indirectly finance private sector mitigation and adaptation activities at the national, regional and international level (GCF, 2011: art. 41). The PSF will promote the participation of private actors in developing countries, especially local actors. From the funds that finance adaptation, the 'Pilot Programme for Climate Resilience' (PPPR) and the Forest Investment Program (FIP) have also sought ways to champion in engaging the private sector in adaptation by using mainly concessional loans to fund adaptation projects in developing countries (Amerasinghe et al., 2017: 32). Table 2. gives an overview of the different financial mechanisms, whereby grants are the main financing instrument of the public sector. Loans and equity could lead to a return on investment, which makes them more attractive for the private sector. Risk mitigation instruments are financial tools used by the public sector to attract private sector involvement, for example guarantees in adaptation projects (Matsukawa & Habeck, 2007). Finance in the GCF is for the major part grant-based (42%), and consists for the remaining part of loans (39%), equity (18%) and guarantees (1%) (GCF, n.d.(a)).

Fund	Grants	Loans	Risk Mitigation Tools	Equity
Least Developed Country Fund (LDCF)	V			
Adaptation Fund (AF)	V			
Pilot Programme for Climate Resilience (PPCR)	V	V	V	V
Green Climate Fund (GCF)	V	V	V	V
Forest Investment Programme	V	V	V	V
Special Climate Change Fund	V			

Table 2. Financing instruments. Source: adapted from WRI 'Future of the Funds' report (2017: 32). Available at: http://www.wri.org/sites/default/files/The_Future_of_the_Funds_0.pdf (Last accessed at 18-06-17).

2.2.2. Country ownership

Country ownership is a core principle of the Fund, meaning that projects are designed in consultation with domestic governments. The GCF board states that: "The Fund will pursue a country-driven approach and promote and strengthen engagement at the country level through effective involvement of relevant institutions and stakeholders." (GCF, 2015: 1). Two specific measures that aim to enhance country ownership are direct access and alignment with national policies.

Direct access

The direct access method aims to simplify and improve access to funding, by offering the possibility for subnational, national and regional implementing entities to become accredited in order to receive funding for climate projects in developing countries (GCF, 2011: art 31 & 47).

Direct access can be distinguished from indirect access, in which international agencies, such as the United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP), multilateral development banks, such as the World Bank or the European Bank for Reconstruction and Development, and private international financial institutions, such as Deutsche Bank, receive funding. Direct access enhances country ownership, as it gives domestic entities the main implementing status within an adaptation project (Schalatek, Nakhooda & Watson, 2015: 4). The method of direct access was already established in the Adaptation Fund (AF), which is a small-grant fund that finances adaptation projects under USD 10 million in

developing countries (Amerasinghe et al., 2017: 7). Although direct access is a policy objective of the GCF, we see that up until now the largest amount of finance is channeled through international accredited entities. Figure 5 shows that 75% of the current funding in the GCF is still received by international agencies, 9% by regional agencies and 16% by national agencies. Marston (2013) explains this observation with the fact that in contrast to the AF, the GCF intends to focus on large scale projects. National entities often lack the capacity to implement projects at a large scale (Marston, 2013).

Alignment national policies

The GCF encourages recipient countries to pursue projects and programmes that are in accordance with their national climate strategies (GCF, 2011: art. 36) The opportunity for recipient countries to appoint a National Designated Authority makes this possible (NDA) (GI: art. 46). The NDA is a government institution that serves as interface between the country and the fund and ensures that investments are aligned with recipient countries' needs and existing climate change planning.

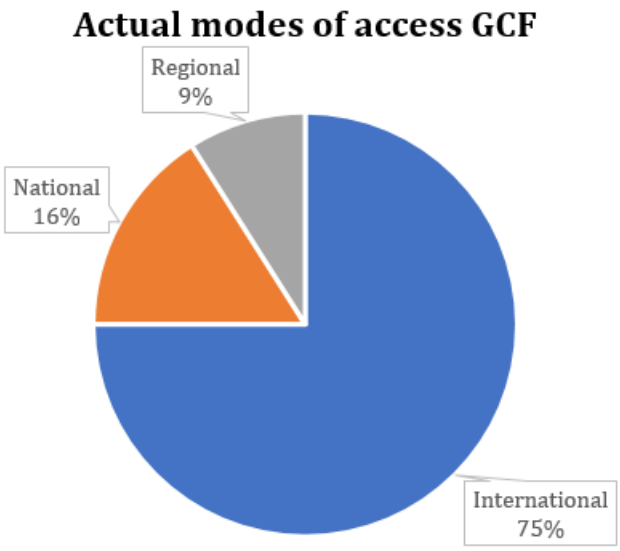

Figure 5. Modes of actual access Green Climate Fund. Source: GCF portfolio (Updated June 14, 2017). Available at: http://www.greenclimate.fund/projects/portfolio (Last accessed at 18-06-17).

2.2.3. Scaling up adaptation finance

In the GCF the allocation of funding is based on the quality of project proposals: a "results-based approach" is an important criterion for the allocation of resources (GCF, 2011: art. 51). Quality criteria are laid down in the Investment Framework (GCF, 2014). This allocation mechanism contrasts with multilateral climate funds that allocate funding based on geographical factors, as is the case with funds under the Global Environmental Facility (GEF). The objective to produce at scale is expressed in two criteria of the Investment Framework: the 'impact potential' and the

'paradigm shift potential'. The 'paradigm shift potential' criterion refers directly to scalability as "the potential for expanding the scale and impact of the proposed programme or project" (GCF, 2014: 26). A sub-criterion of the 'paradigm shift potential' that refers to scalability as well is 'replicability', which means that the project can be exported to other sectors, regions and countries. The criterion of 'impact potential' refers indirectly to scalability, as it contains quantitative indicators, such as the number of beneficiaries and expected reduction of vulnerability (GCF, 2014: 25).

2.2.4. Addressing the needs of the most vulnerable to climate change

The GCF follows a result-based approach of which scale is an important aspect. When it comes to the most vulnerable countries to climate change, such as the Least Developed Countries (LDCs), Small Island Developing States (SIDS) and African states, the board is more lenient concerning scale criteria. The board uses 'minimum allocation floors' for these countries, which means they are judged on the basis of softer criteria (GCF, 2011: art. 52).

Moreover, the special status for the most vulnerable countries is expressed in the objective of the GCF to balance its resource allocation between mitigation and adaptation projects. The GCF follows the Paris Agreement that calls for an allocation balance between mitigation and adaptation (art. 9.4.), although the Agreement does not specify what this balance means. It does not follow from the Paris Agreement whether the balance should be in terms of resources or projects and how the balance should be maintained over time (Amerasinghe et al., 2017: 51). The GCF has decided to divide its financial resources equally between mitigation and adaptation measures. Since the most vulnerable countries mainly benefit from adaptation projects and the multitude of climate finance in the existing climate finance architecture used to go to mitigation finance, this objective can be seen as addressing the needs of the most vulnerable.

Within the existing funding structure there are three multilateral funds that focus on adaptation: the LDCF, the AF and the Pilot Programme for Climate Resilience (PPCR). The Special Climate Change Fund (SCCF) and the Forest Investment Programme (FIP) focus on both adaptation and mitigation. The AF has a USD <10 million cap, thus finances small-scale projects only (Amerasinghe et al., 2017: 69). The LDCF also differs from the GCF because it is small-scale and funds LDCs only (see Figure 6).

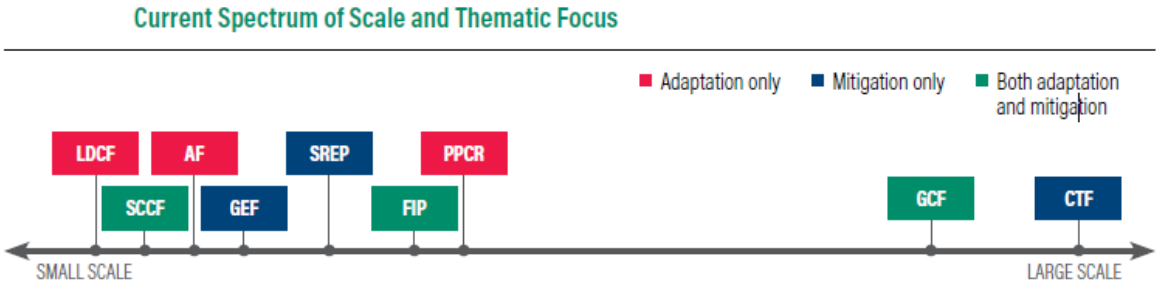

Figure 6. Multilateral funds: scale spectrum and thematic focus. Source: WRI 'Future of the Funds' report (2017: 7). Available at: http://www.wri.org/sites/default/files/The_Future_of_the_Funds_0.pdf **(last accessed 18-6-17).**

2.3. Will the features of the GCF lead to effective adaptation finance?

The GCF is proposed as the main future fund to channel large flows to developing countries. Yet, it is another fund in the already consisting climate funding architecture and it is a fragmented institution in itself. Moreover, the character of climate adaptation itself constitutes challenges to finance it effectively, as cause-effect relationships of adaptation measures are uncertain and the return on investment takes a long time. It can thus be questioned to what extent the GCF is going to fulfill its promised role, depending on the ability of the GCF to overcome the challenges of fragmentation and the characteristics of climate adaptation.

Based on the in this chapter established conceptualisation of effectiveness, this thesis will further investigate whether the main features of the GCF can be expected to lead to effective climate adaptation finance. In doing so, it aims to contribute to a further understanding of how climate finance for adaptation can be effective in a fragmented climate finance architecture.

Considering that actors differ in the importance that they attach to problems and differ in the way they frame policies (Young, 2011: 2), this study pays particular attention to the norm differences between actors while analysing the perceived effectiveness of the GCF. Biermann et al. (2009) refer to these norm differences as 'norm fragmentation'. In the next section, theory of fragmentation will be discussed from which follow explanations of how fragmentation could inhibit or enhance effectiveness. The focus will be on norm fragmentation, as the norms of different actors regarding effective climate adaptation finance are central to this research. Moreover, theoretical explanations will be given for the difficulties of collective action in the case of climate adaptation.

3. Theoretical framework

This chapter builds on theories that provide explanations for why effective collective action in the field of global environmental governance is difficult. From each theory follows a hypothesis that will guide the empirical research. First, Global Public Good theory describes why the global climate is something that is handled by the international community in the first place and then turns to the difficulties that could occur in collective action in environmental matters (3.1). Second, theory of institutional fragmentation is discussed (3.2). Fragmentation of global environmental governance can be analysed at three levels: fragmentation of institutions or decision-making procedures; fragmentation of norms; and fragmentation of actor constellations. Theory of social constructivism (3.3) and theory about environmental aid (3.4) will be used to elaborate further on 'norm fragmentation'. The focus within fragmentation theory is on 'norm fragmentation', because it illustrates the multi-actor nature of climate change governance and its consequences for the effectiveness of the governance system.

3.1. Global Public Good theory

The public good of the global climate is 'sustainable development' and the objective of the international community is then to realise sustainable development (Molle, 2014). There are several structural factors that make collective action in environmental governance difficult. The major issues are listed here, based on Molle (2014):

1. *Pervasiveness of sources of pollution*

Causes of environmental degradation are spread over each stage of the production-consumer chain. Each individual is only a small contributor of the problem and small beneficiary of the solutions provided by the international community.

2. *Entrenchment of the problem in ways of life*

Activities that contribute to environmental degradation have become a central part of people's lives. People have for example adjusted to using cars or to producing a lot of waste, which makes it hard to limit this.

3. *Uncertainty as to cause-effect and cost-benefit relations*

In environmental matters, there is a high degree of uncertainty amongst scientists, policy makers and the public about the causes and seriousness of problems, the means to solve them, and the perceived effectiveness of the chosen solutions. The lower the degree of uncertainty amongst scientists, policy makers and the public, the higher the chances are for collective action.

Bradshaw & Borchers (2002) state that there is a science-policy gap in the field of environmental governance that inhibits collective action or decision-making. They define uncertainty as the lack of confidence in scientific findings by policy makers and the public. Two types of uncertainty can be distinguished: firstly, diverging opinions in the scientific world lead to confusion and ignorance about the right thing to do for policy makers. Secondly, the significance of scientific findings is irrelevant to the everyday lives of policy makers, because their decision-making behaviour is motivated by short cycles of funding and elections instead of handling a crisis that will only occur on the long-term. Both types of uncertainty can result in non-action.

The public administration literature explains that uncertainty not only comes from a lack of knowledge about causal relations. Moreover, it comes from an excess of ambiguity, meaning that there is an enormous amount of information and different interpretations regarding the nature of the problem and solutions that confront policy makers (Koppenjan & Klijn, 2004: 37). This ambiguity can be attributed to the large amount of actors with different interests that are involved within a problem situation. Ambiguity cannot be solved through simply information gathering, research and the use of experts.

With regard to decision-making, uncertainty can lead to decisions that are based on consensus of a large group of actors, but at the same time these decisions are shallow and broadly interpretable. The consequence of this 'constructive ambiguity' is that contradictive interpretations can constrain effectiveness of the system, because it results in a lack of consensus about the required actions (Bradshaw & Borchers, 2000).

4. *Time preference*

Environmental action is precautionary, which means that the urgency of interventions is not always visible. Still measures need to be taken to protect people against climate threats. Consequently, the costs need to be born immediately, while the benefits are only visible on the long-term. This creates a tendency to postpone action.

5. *Unequal distribution of costs and benefits*

The 'polluter pays' principle leads to a situation in which the costs are born by one group, while the benefits are received by another group. Since the benefits are not visible on the short term or not visible at all for the actors that provide the public good, they are discouraged to carry the costs.

6. *Weaknesses of the institutional framework*

In general, it can be said that the ideal governance system to deal with environmental issues has not been developed yet on an international scale. This implies that new governance structures

that deal with rising environmental problems are constantly developed in a process of continuous institutional learning.

Hypothesis 1

Considering these structural challenges of collective action in the field of environmental governance, it can be questioned whether the private sector could be engaged to invest in climate adaptation projects. The private sector is driven by cost-effectiveness and short-term returns. These incentives do not align with the highly uncertain and long-term character of adaptation measures. This implies that the feature of private sector engagement is not expected to contribute to the availability of finance for adaptation. From this observation follows the first hypothesis:

> *H1: The characteristics of adaptation make it unlikely that private sector engagement will lead to effective climate adaptation finance in terms of availability.*

3.2. Theory of fragmentation

Biermann et al. (2009) created a framework to analyse fragmentation in global climate governance, assuming an universal global climate architecture does not exist. They refer to fragmentation in global governance in general as "a patchwork of international institutions that are different in their character (organisations, regimes and implicit norms), their constituencies (public and private), their spatial scope (from bilateral to global) and their subject matter (from specific policy fields to universal concerns)" (Biermann et al., 2009: 16). Institutions can be defined as the formal and informal rules of the game that shape social, political and economic relations (North, 1990). The main assumption of the theory is that fragmentation can be negatively or positively related to performance, depending on the degree of the fragmentation. Performance can be defined as the potential to solve the core problem within an issue area, and is thus closely related to Young's definition of effectiveness as "the problem-solving capacity of a regime" (Young, 2011). Three ideal types of fragmentation: exist: *synergistic fragmentation*, *cooperative fragmentation* and *conflictive fragmentation*. Synergistic fragmentation has the lowest degree of fragmentation and is therefore positively related to performance, while conflictive fragmentation has the highest degree of fragmentation and is negatively related to performance. Since this distinction is an ideal type and it is a characteristic of ideal types that they are not mutually exclusive within the same institutional setting (Kersbergen & Vis, 2015), this typology will not be used to form the hypotheses that will guide the empirical research. The analysis focuses on another part of the framework: the different levels that can be used to assess fragmentation within an institutional setting, respectively (1) institutional fragmentation, (2) fragmentation of actor constellations and (3) norm fragmentation (See also Pickering, 2017).

1. *Institutional fragmentation*

Institutional fragmentation refers to the different decision-making systems within one issue area, whereby performance of the institution depends on the degree of coordination between the different decision-making systems: when there is a high degree of coordination, the performance is high, while a high degree of fragmentation, for example resulting in overlap between different institutions that support the same goal, leads to lower performance.

Institutions aim to reduce uncertainty surrounding interactions and thereby reduce transaction costs (North, 1990). Transaction costs can be defined as all the costs that are not directly related to the final product. They arise because of information uncertainty and consists of all the actions that transactors need to take to overcome these information gaps, such as gaining knowledge, maintaining partnerships and negotiating (Coggan, Whitten & Bennett, 2010). A lack of coordination between different institutions could imply higher transaction costs for the actors involved, as they need to invest more in time and resources.

2. *Fragmentation of actor constellations*

This type of fragmentation refers to the question who is included in the decision-making system. Institutions show a higher performance when all relevant stakeholders are included, while the exclusion of stakeholders from the main decision-making mechanisms within an institution leads to lower performance.

3. *Norm fragmentation*

Norm fragmentation refers to the policy priorities or preferences of actors that operate in the same issue area. Performance depends on the extent to which these preferences conflict or converge.

These first two types of fragmentation lead to hypothesis 2. Theories 'social constructivism' and 'environmental aid' elaborate on norm fragmentation, leading to hypothesis 3.

Hypothesis 2

A high degree of institutional fragmentation between climate finance institutions can result in high transaction costs for developing countries to access funding. Moreover, a high degree of fragmentation between actors could result in developing countries being excluded from decision-making systems. They need to pay high transaction costs to stay informed about how to receive funding. Transaction costs are especially a burden for developing countries, because they only

have few resources. Since institutional fragmentation and fragmentation of actor constellations create high transaction costs for developing countries to gain access, it is not expected that the feature of 'direct access' for developing countries will lead to a significant higher access in practice for domestic entities in developing countries. This leads to hypothesis 2:

> *H2: High transaction costs for developing countries make it unlikely that the feature of 'direct access' will lead to effective adaptation finance in terms of accessibility.*

Within the fragmentation literature a distinction between horizontal and vertical fragmentation can be made: horizontal fragmentation refers to the degree of coordination between institutions on the same level, and vertical fragmentation between different levels, for example between the international, national and local level (Young, 2011; Pickering, 2017). Both dimensions are relevant to assess the empirical case. Table 3. summarises the relation between different levels of fragmentation and the performance of institutions. In Figure 7. fragmentation between and within institutions is visualised.

Level of fragmentation	**Relation to performance (+) or (-)**
Institutions	Coordination (+) Overlap (-)
Actors	Inclusion (+) Exclusion (-)
Norms	Converging norms (+) Diverging norms (-)

Table 3. The relation between fragmentation and institutional performance.

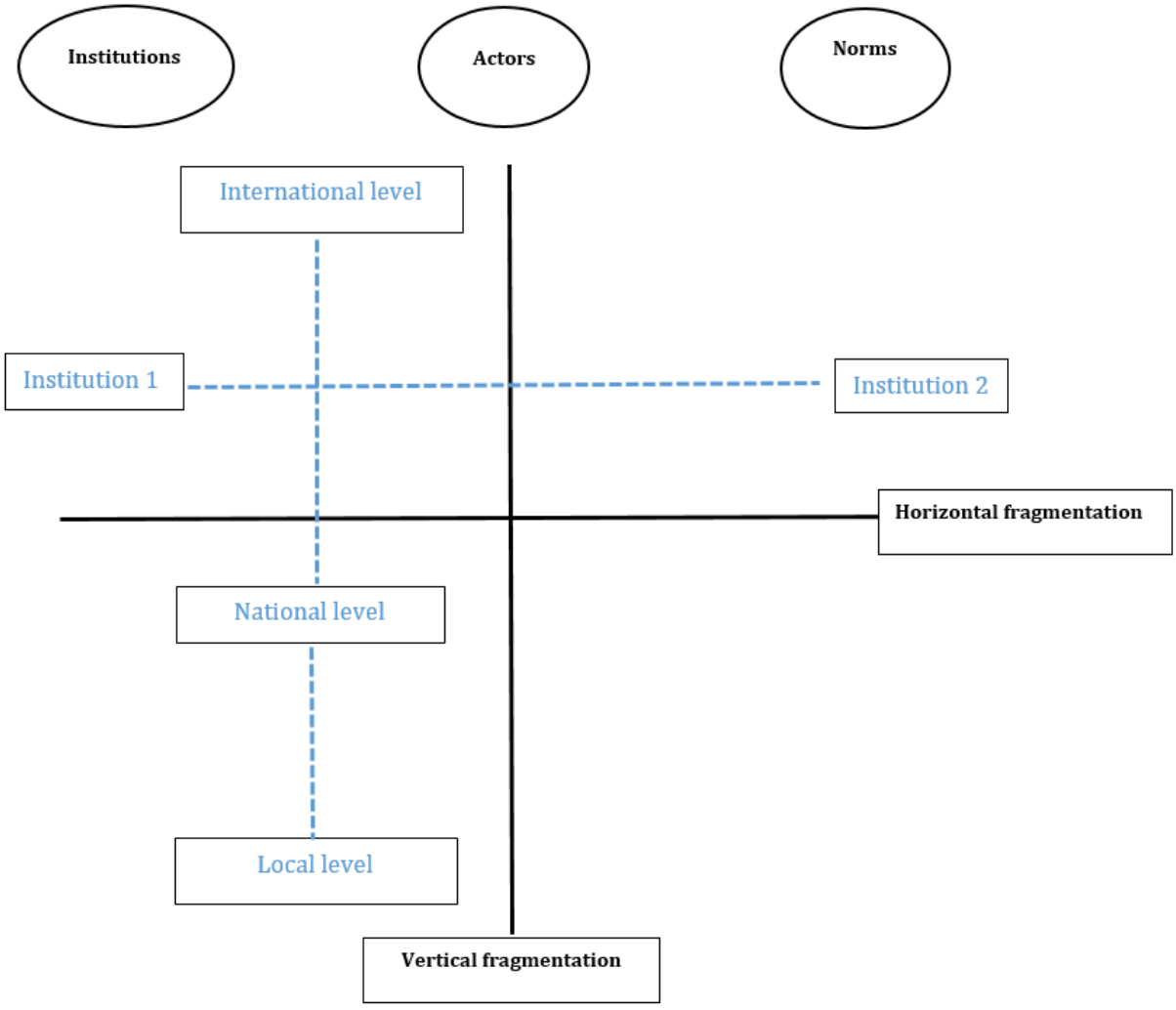

Figure 7. Institutional fragmentation between and within institutions. Adapted from Biermann et al (2009).

3.3. Theory of social constructivism

The main assumption of social constructivist theory is that actor's preferences are guided by norms, referring to norms as standards of appropriate behaviour for actors with a given identity (Finnemore & Sikkink, 2006: 891). Norms are socially constructed, as they consist of shared ideas, expectations and beliefs about what is appropriate behaviour (Finnemore & Sikkink, 2006: 894). The avoidance of norm conflicts depends on the ability of actors to reach a common understanding (Pauw, 2017). Actor's preferences can change over time through a shift in ideas and beliefs of what is appropriate behaviour. Linked to effective decision-making, awareness of the different frames of reference that actors use is needed to discover the substantive questions that need to be addressed to solve a problem (Koppenjan & Klijn, 2004: 38). If there is no attention for frame reflection during interactions, efforts to find solutions will result in a 'dialogue of the

deaf' (Rein & Schön, 1986; Koppenjan & Klijn, 2004: 30). Social constructivism can help to understand why norms show convergence or are likely to conflict, as is the case with norm fragmentation. At this abstract level it is difficult to derive specific hypothesis about actor's perceptions. In the next section about 'environmental aid theory' the preferences of different actors will therefore be discussed.

3.4. Theory of environmental aid

The effectiveness of environmental regimes is hard to define, when the definition of 'problem solving' is unclear: different actors have different motivations for the creation of regimes (Young, 2011:1). From this follows the question what the different motivations or preferences of actors that participate within an institution consist of. Theory of environmental aid helps explain the different preferences of developed and developing countries in the context of aid and environmental policies, two fields that are closely interlined (Hicks, Parks, Roberts & Tierney, 2010).

'Environmental aid' is a stream of the general aid literature, which defines 'environmental aid' as "the support to reduce environmental poverty, such as the consequences of climate change" (Lewis, 2003). According to this theory, one of the reasons why developing countries prefer multilateral institutions above bilateral ones to solve environmental issues, is that they have a stronger position vis-à-vis donor countries than in bilateral funds. This stronger position will consequently lead to more ownership for developing countries (Hicks et al., 2010). Moreover, the theory explains why developed and developing countries have different priorities that lead to norm conflicts within multilateral institutions. While developed countries prioritise the protection of the global environment, developing countries prioritise local needs in terms of the effect of environmental projects on the improvement of their livelihoods (Lewis, 2003). This observation can also be explained through the spatial scale of the actors in relation to the environmental goods or problems (Newig & Fritsch, 2009). While actors that live close to a natural resource prefer to exploit its economic use, those actors living at a greater distance will favour its ecological conservation (Newig & Fritsch, 2009: 7). Environmental aid exemplifies a shift in the aid architecture (Carbonnier & Sumner, 2012). While aid was initially driven by the norm that no one deserves to live in poverty, environmental aid goes way beyond the scope of poverty reduction. Rather, environmental aid becomes of direct interest for developed countries, as they are pressured by the international community to fight the 'public bad' of climate change (Carbonnier & Sumner, 2012: 4).

Hypothesis 3

The actors that participate in the GCF have different norms with regard to desired outcomes of adaptation projects. Where developed countries might prioritise the environment, developing countries might prioritise the impact of the project on their economy. Preferences are also diverging for non-state actors: while the private sector prioritises the cost-effectiveness of measures, CSOs tend to prioritise the protection of the most vulnerable. Disagreement over values will lead to ineffective decision-making, because decisions will only satisfy the needs of a small part of the actors involved. Since I expect that there will be no agreement about how finance can be used effectively, the last hypothesis states:

> *H3: Norm fragmentation regarding the desired outcomes of adaptation projects makes it unlikely that the features of the GCF will lead to an overall effective use of climate finance for adaptation.*

Figure 8. visualises the hypotheses and expected relation between the variables that will guide the empirical research. Note that the relations are expressed in dotted lines. This is done to show that the hypotheses are not measurable in quantitative terms, thus emphasising the qualitative character of the prepositions.

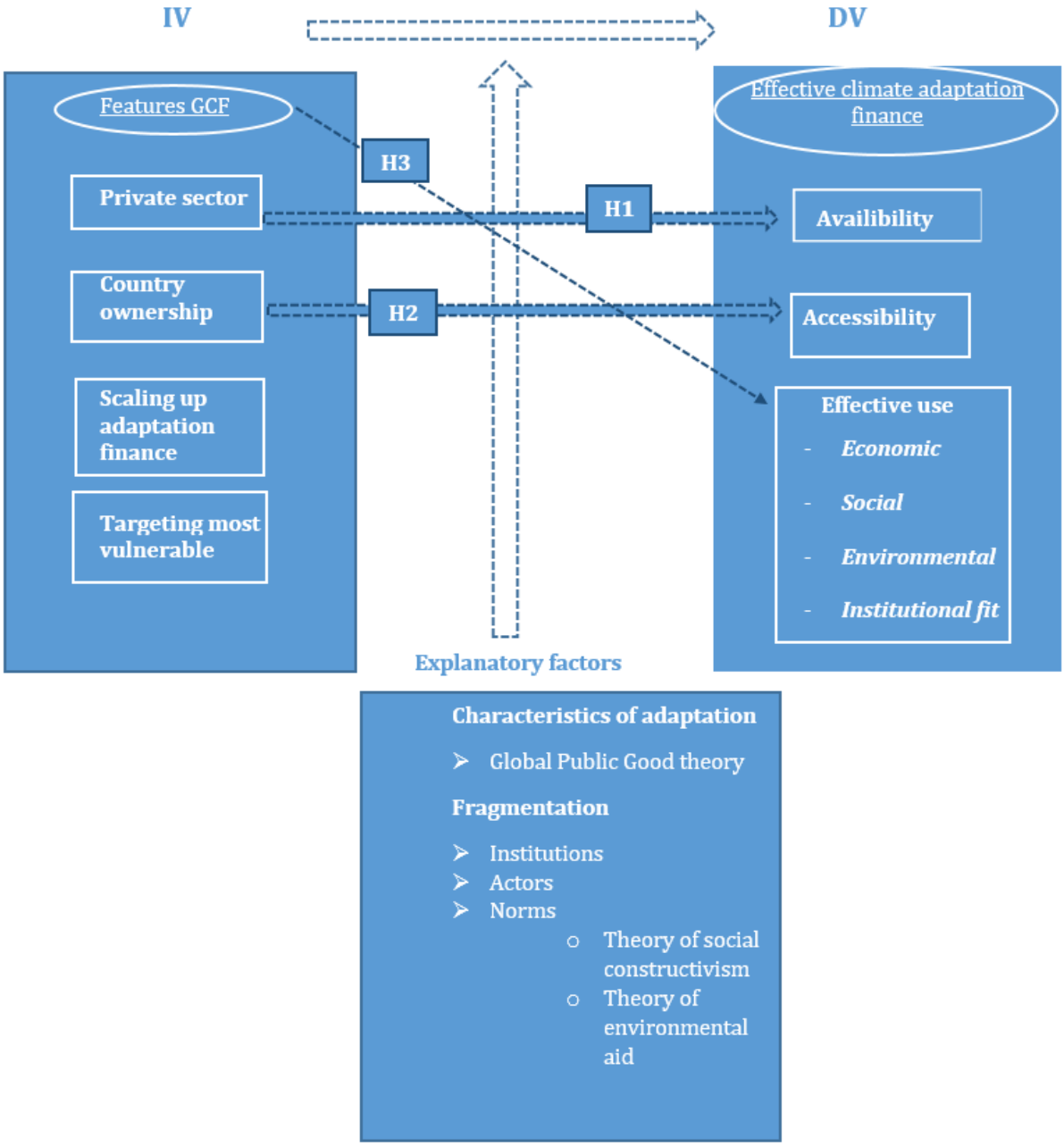

Figure 8. Hypotheses and expected relation between variables.

4. Methodology

So far the theoretical framework has resulted in three hypotheses about the expected effectiveness of the GCF to finance climate adaptation. The first part of this chapter operationalises the variables of these hypotheses (4.1). The operationalisation section pays particular attention to the dependent variables (4.1.1.) and moderating variables (4.1.2.), because the independent variables consist of the features of the GCF, which have already been described in section 2.4. Table 5. gives an overview of the operationalisation, including the indicators that will guide the empirical research. The second part of the chapter (4.2) outlines the research design, describes the data sources and acknowledges the limitations of the research.

4.1. Operationalisation of key concepts and variables

4.1.1. Dependent variables (DV): Effectiveness of climate finance for adaptation

The dependent variable is non-objective in terms of outcome and takes into account the different perceptions of actors. This implies that there is no objective threshold to determine effectiveness. Effectiveness is measured on the following aspects:

Availability

A basic condition for the effectiveness of finance is whether finance is available. Since the tracking of financial flows for climate adaptation projects is difficult, due to the integration of climate finance and development budgets for climate-related projects, the 'availability' of finance will not be measured in quantitative terms. Rather, it will be measured by asking actors and analysing in policy documents to what extent they perceive a shortage of finance as a problem and how private sector engagement in the GCF is or is not likely to solve the shortage: do they think private sector participation will lead to a higher availability of finance for climate adaptation? In addition, the concept is measured by the actual participation of the private sector in adaptation projects.

Accessibility

Accessibility depends on the extent to which the climate finance system is characterised by clear procedures and coordination, as opposed to complex rules and overlap. A lack of clear procedures concerning access criteria and coordination between different funding mechanisms constrains the accessibility of climate finance for adaptation. Therefore, accessibility will be measured through the perceived access to climate finance for developing countries and their domestic implementing entities: do they perceive the rules and procedures of the green climate fund to gain access to funding as complex?

Effective use

In operationalising the effective use of finance, the different norms of actors with regard to effective use are measured. The trilogy of social, environmental and economic sustainable development, together with the criterion of 'institutional fit' with the local context, are used to map different actor's perspectives on effective use. The concept will be measured through asking actor's about their preferences in interviews and analysing the preferences in policy documents. This makes it possible to see whether different perspectives are likely to conflict.

Table 4. gives an overview of the different aspects of effectiveness that will be measured through actors' perceptions.

Factors determining effectiveness		**Actors' perceptions on**
Availability		Pledges in the fund are sufficient
		Potential for the private sector to increase adaptation finance
Accessibility		Clear procedures and coordination
Effective use	Economic sustainability	Measures with a return on investment
	Social sustainability	Pro-poor measures
	Environmental sustainability	Measures aimed at ecological conservation
	Institutional fit	Inclusion of relevant stakeholders on the implementation level

Table 4. Operationalisation of effectiveness of climate adaptation finance.

4.1.2. Moderating variables (MV): explanatory factors for effectiveness

In the theoretical chapter three theories are discussed to provide explanations for why certain features of the GCF are unlikely to lead to effective climate adaptation finance. In this section these theoretical explanations are linked to the empirical case study of the GCF and operationalised into measurable indicators. The explanatory factors are presented here as 'moderating variables'. It must be noticed, however, that this is an explorative research, and there might be other variables that affect the relationship between the features of the GCF and its perceived effectiveness. Since this is a qualitative research that explores a new phenomenon, the aim of the research is not to establish a cause-effect relationship, while controlling for all the other variables that could be of influence. Rather, the research aims to get a deeper understanding of the possible effects of factors that are expected to be of influence.

H1: Characteristics of adaptation

Global Public Good theory states that there are several structural factors that make collective action in the field on environmental governance difficult. Two factors are especially relevant to operationalise the explanatory factor 'characteristics of adaptation' in hypothesis 1: the uncertainty of cause-effect relationships and time preference. Uncertainty is measured through the perceptions of actors on the impact of adaptation investments. Time preference is measured through actor's perceptions on the time-span over which returns on investment of adaptation projects are likely to occur.

H2: Fragmentation

From fragmentation theory follows that overlap and a lack of coordination between institutions can create difficulties for recipient countries to access funding, because they create high transaction costs. Transaction costs also increase when recipient countries are excluded from the main decision-making systems.

Institutional fragmentation

Institutional fragmentation is measured by assessing whether the GCF uses the same eligibility criteria and procedures compared to other multilateral funds with adaptation as thematic focus. This is assumed to be a necessary condition for coordination. Furthermore, recipient countries are asked whether they consider themselves to have sufficient resources to pay for transaction costs and get access to funding. Contributing countries are asked whether they prefer to use the GCF as the main funding channel.

Actor fragmentation

Transaction costs increase when actors have to spend a lot of resources in order to access relevant information. This could be the case when they are not included as a relevant stakeholder. Actor fragmentation is measured on a horizontal scale through assessing the representation of recipient countries in the main decision-making structure of the GCF. It will be measured on a vertical scale by assessing the efforts of domestic governments to include relevant stakeholders.

H3: Disagreement over desired outcomes

Norm fragmentation

Norm fragmentation is measured through the perceived desired outcomes of adaptation projects according to contributing countries, recipient countries, CSOs and the private sector. When these different perceptions are non-reconcilable, norms are indicated as 'fragmented'. Contributing countries are expected to focus on environmental outcomes, while the recipient countries favour the social impact of projects on their livelihood (Lewis, 2003; Klein, 2010). Furthermore, the private sector is expected to prioritise economic sustainability, while CSOs are expected to

prioritise pro-poor measures that are closely related to social outcomes. These assumptions from the literature have been tested in the empirical case.

4.1.3. Independent variables (IV): features of the GCF

The main features of the GCF that aim to improve the effectiveness of climate adaptation finance function as independent variables. These features are operationalised from the founding document of the GCF: The Governing Instrument (2011). Additionally, the Investment Framework (2014) is used, to specify the funding criteria of the GCF. These features have been presented in section 2.2., so will not be elaborated upon in this chapter. The feature of 'private sector' engagement is measured in relation to the first hypothesis, and 'country ownership', of which direct access is a part, is measured in relation to second hypothesis. This is done as the expected relationships follow directly from the theory (see also Figure 8). For the third hypothesis the relation between the specific features is less clear. Therefore, it is assessed for all the features whether norm fragmentation exists between actors regarding those features.

Table 5. gives an overview of the operationalisation.

Hypothesis	Indicators MV	Indicators IV	Indicators DV	Variation in DV
1.The characteristics of adaptation make it unlikely that private sector engagement will lead to effective climate adaptation finance in terms of availability	Do actors have a clear view on the impact of adaptation measures? How do actors perceive the time span over which the benefits of adaptation projects become visible?	**Feature 1:** engagement of the private sector (private sector facility)	Perceptions on the likeliness for the private sector to increase availability of climate finance for adaptation.	Private sector engagement is perceived to lead to higher availability. **-> feature is expected to be effective.** Private sector engagement is perceived unlikely to lead to higher availability. **-> feature is *not* expected to be effective.**
			The existence of private finance through loans and equity in GCF's project portfolio for adaptation. *	The GCF's portfolio includes private sector involvement in adaptation projects. **-> feature is expected to be effective.** The GCF's portfolio excludes private sector involvement in adaptation projects. **-> feature is *not* expected to be effective.**

2.High transaction costs for developing countries make it unlikely that the feature of 'direct access' will lead to effective adaptation finance in terms of accessibility.	What difficulties do contributing countries and domestic implementing entities encounter while gaining access to the GCF? Are contributing countries planning on using the GCF as the main funding channel? Are recipient countries included in the main decision-making structures? Are domestic governments including relevant stakeholders in designing project proposals?	**Feature 2:** Direct access (direct access is part of country ownership)	Degree of coordination between eligibility criteria and procedures between GCF and other multilateral climate funds.	GCF is using comparable eligibility criteria and procedures -> **feature is expected to be effective.** GCF is using different eligibility criteria and procedures-> **feature is *not* expected to be effective.**
			Actual % of access through national implementing entities. *	The major part of the GCF's portfolio consists of national access -> **feature is expected to be effective** The major part of the GCF's portfolio consists of international access. -> **feature is *not* expected to be effective**
			Perceived stakeholder engagement of domestic governments and local communities in the GCF board and in designing proposals.	Domestic governments and local communities are perceived to be: Included -> **feature is expected to be effective.** Excluded -> **feature is *not* expected to be effective.**

*** These indicators are not part of the interview questions and are researched through document analysis.**

3. Norm fragmentation regarding the desired outcomes of adaptation projects makes it unlikely that the features of the GCF will lead to an overall effective use of climate finance for adaptation.	Do actors differ in their preferences with regard to outcomes of adaptation projects? Preferences express general development outcomes (recipient countries). Preferences express climate related outcomes (contributing countries). Preferences express pro-poor outcomes (CSOs) Preferences express economic sustainability (Private sector)	**Features of the GCF:** **1.**Private sector engagement **2.**Country ownership **3.** Scaling up adaptation finance **4.** Addressing needs of the most vulnerable countries	Effective use is expressed in terms of: Economic impact Environmental impact Social impact Fit with the institutional context	Preferences with regard to outcomes are converging -> **features are expected to be effective.** Preferences with regard to outcomes are conflicting -> **features are *not* expected to be effective.**

4.2. Case-selection strategy: qualitative approach

The research consists of a qualitative single case study design. The qualitative case study method is suitable to understand social phenomena in a real-life context, whereby the researcher has no control over the events (Yin, 2013). The multilateral funding architecture is a complex phenomenon and studying a single case makes it possible to gain an in-depth understanding of mechanisms that enhance or inhibit effectiveness of climate funds. The GCF has been chosen as single case, as it is a multilateral fund that exemplifies the most recent policy developments in the international climate finance architecture. A qualitative analysis of its features and the assessment of its potential effects through interviews with actors that participate in the international climate finance architecture helps to answer the research question: 'Can the features of the Green Climate Fund be expected to lead to effective climate adaptation finance?'.

4.3. Qualitative methods

4.3.1. Literature study

In the first stage of the research a literature study is conducted to describe the academic and policy context of the GCF. Academic articles and policy reports have been collected through search engines, such as Google Scholar, by combining key words related to the research question, such as "Green Climate Fund" and "climate finance effectiveness". This has been an iterative process, as literature was published during the research, and I wanted to give the most recent overview of

the existing literature. An example of a recent publication is the 'Future of the Funds' report of the World Resource Institute (WRI) that has been published in March 2017 and gives an overview of the challenges and opportunities of several multilateral climate funds. To maintain the policy and academic relevance of this thesis, I discussed with the authors of the report where research gaps remained and I scoped my research accordingly. The report offers a broad, and consequently less detailed, overview of the entire multilateral climate finance architecture, while the aim of this research has been to provide an in-depth analysis of the GCF.

4.3.2. Semi-structured interview

For the empirical part of the research, the semi-structured interview forms the main primary data source. The semi-structured interview is guided by a topic list, based on concepts that have been derived from the theory (see annex 1 and 2 for the interview guide). The topic list leaves room to ask further questions in response to answers of informants that seem significant (Bryman, 2012: 472). The semi-structured interview offers flexibility to the researcher, which makes it the most suitable method for a qualitative case study research in which multiple variables could be of influence on the dependent variable and valuable information might pop up during the data collection (Yin, 2013). A downside of the method is that respondents can elaborate on information that might be less relevant for the research question. Obtaining a balance between relevant outcomes and making the respondents feel heard comes down to the interview skills of the researcher. To achieve this, I summarised respondents' answers during the interviews and tried to link those to another topic that still needed to be discussed. Another challenge is that respondents might give socially desirable answers. To avoid this, it has been expressed in the invitation e-mail as well as in the interview itself that the respondents' identity will be concealed in the written report. This enabled officials to speak more freely. Regarding ethical considerations, all the interviews have been conducted with the informed consent of participants, meaning they have been made aware of the purpose of the research and how their information would be treated in the written report (Mosley, 2013).

4.3.3. Document analysis

Complementary to the interviews, a document analysis is carried out with the purpose of triangulation: the interview data is analysed in light of other empirical material, such as primary policy documents and secondary sources that interpret policy documents (Bowen, 2009: 28; Bryman, 2012: 392). Firstly, documents that provide information on how the GCF operates are used. These contain primary sources, such as reports from board meetings or policy frameworks. Moreover, secondary sources, such as reports from think thanks that describe the features of the GCF, are used for this purpose. Secondly, the analysis contains documents that express the viewpoints of respondents. These documents were referred to by respondents themselves during

the interviews and are used to give more strength to their expressions in the analysis. The same topics as in the interviews have been applied to the document analysis. Consequently, it has been analysed whether the information in the documents is complementary or contradictory to what has been said in the interviews, for example regarding the question whether the modalities the GCF proposes in its policy frameworks are actually used in practice. Table 6. gives examples of the types of documents that are used for both purposes.

Type of document	Example
Primary documents that provide information on the features of the GCF.	Green Climate Fund (2014). *Investment framework.*
Secondary documents that provide information on the features of the GCF.	Nakhooda et al. (2013). *The global climate finance architecture.*
Documents that express the viewpoints of respondents.	*Contributing country perspective:* Australian Ministry of Foreign Affairs (n.d.). *Climate finance roadmap to US $100 billion.* *Recipient country perspective:* Darby (April 6, 2017). *Green Climate Fund a 'laughing stock' say poor countries.* *CSO perspective:* Soentoro et al. (2016). *The Green Climate Fund: A CSO guide for engagement and local access.* *Private sector perspective:* UNEP Finance Initiative (2016). *Demystifying adaptation finance for the private sector.*

Table 6. Document analysis: examples of documents.

4.4. Data collection

4.4.1. Background respondents

The respondents are selected on the basis of non-random or purposive sampling (Bryman, 2012: 418). This is suitable for research that aims to develop 'causal explanations within complex phenomena' rather than to 'generalise' to a larger population (Mosley, 2013). Purposive sampling is thus suitable for the single case-study design of this research. Individuals have been selected on characteristics that are relevant for the research question: firstly, they belonged to one of the respondent groups that participate in the climate finance architecture, which are explained below. Another criterion was that the respondents have regularly attended the board meetings of the GCF in the head quarter in Songdo, South Korea, and other regional meetings, so they can speak

from personal experiences. A full overview of the respondents can be found in annex 5. Table 7. summarises the actors that are part of the sample and their roles. For privacy reasons, not all the specific country backgrounds of respondents are referred to in the result section.

Contributing countries (acronyms result section: CC 1-5)
This group consists of five respondents from developed countries that contribute to the Fund, respectively from Denmark, Germany, the Netherlands, Norway and the United Kingdom. Four respondents work as policy advisors to the representatives of their country in the board. The German respondent has been co-chair of the contributing countries in the board during the period 2011-2013.

Recipient countries (acronyms result section: RC 1 -2)
This group consists of two respondents: one policy advisor to the board member of the Caribbean SIDS and one policy advisor to the board member of the SIDS in the Pacific. These countries function as recipient parties to the Fund.

Accredited entities (acronyms result section: AE 1-5)
This group consists of five respondents that are employed at international, regional and national accredited entities. The international entities concern UNDP, the Dutch Development Bank (FMO) and Conversation International (CI). The latter organisation received funding of the GCF to implement a project in Madagascar, and at the same time functions as advocacy organisation. Therefore, this respondent also belongs to the group of CSOs. The regional accredited entity, the Secretariat of the Pacific Regional Environment Programme (SPREP), is an environmental organisation in the pacific SIDS. Furthermore, an interview is conducted with an employee of Centre Suivi Ecologique (CSE), the national accredited entity of Senegal.

Civil society organisations (acronyms result section: CSO 1-2)
Two CSOs are part of the interview sample. The aforementioned shows that CSOs can function as accredited entity. Besides this function, they advocate for developing countries, for example through the publication of critical reports or attending board meetings as observer. Besides CI, a respondent from the Dutch organisation BothENDS, which advocates for direct access in developing countries, has been interviewed.

The private sector (acronyms result section: PS 1-3)
Three interviews with private sector experts have been conducted. One respondent advises the GCF board directly on private sector modalities. Another respondent is a post-doc researcher at

the London School of Economics on climate finance. The last respondent is employed at the Italian commercial bank UniCredit, which is specialised in climate finance. It has not been possible to find private sector experts that all have attended board meetings. Reason for this is that the role of the private sector in the GCF is marginal so far in practice. Although the two last mentioned respondents have not attended GCF meetings, they could provide information on adaptation finance in a more general sense that is also applicable to the case of the GCF.

In addition to these groups, a climate finance specialist that leads the WRI's international policy work related to the GCF is interviewed to collect information on the developments in the GCF in general.

Actor		**Role**	
Developed countries		Contributing party	
Developing countries		Recipient party	
Accredited Entities		Implementing projects	Financial support
			Technological support
Non-state actors	Private Sector	Contributing party	
	Civil Society Organisations	Implementing projects	
		Advocacy	

Table 7. Actors and roles in the GCF.

4.4.2. Conducting the interviews

Interviews have been conducted with 17[4] respondents between April and June 2017. To ensure the quality of the interview questions, three pilot interviews have been conducted: one with a respondent that participates in another multilateral fund (Adaptation Fund), a private sector expert and a representative of a CSO. These pilot interviews had the aims to learn to speak the language of the respondents, to assess whether the topic list did not miss out on important unforeseen information and to create opportunities for snowball sampling (Mosley, 2013: Bryman, 2012: 202). This has been especially relevant for the questions with regard to the private sector, because as a social researcher without significant knowledge of finance I still had to learn to speak the language of the private sector. During the pilot interviews, it became clear that actors gave different meanings to the independent variable: the proposed policy features in the GCF were interpreted differently and actors mentioned that they would prefer to see the features of the GCF

[4] Three pilot interviews and the expert interview for background information are included in this number.

more specified. Based on this finding, the interview guide has been adjusted by adding a topic 'policy gaps', which seeks to discover the main policy gaps in the GCF and their consequences for effective climate finance (see annex 1: topic 4).

The interviews lasted 45 minutes up to an hour and have been collected in person, via the phone or Skype, depending on whether the respondents lived in the Netherlands or abroad. Officials that work in multilateral institutions are used to having conference calls, which has been believed to reduce the possible negative effect of creating a large distance between the respondent and researcher in a phone interview, which could disable getting crucial information.

A practical concern with regard to non-random sampling is access to informants (Mosley, 2013). Key-informants might decline the request for an interview, which makes it necessary to adapt the sample. Besides the practical consideration of access to informants, the interview method has some challenges concerning the reliability of the research (Bryman, 2012). Since respondents speak about past events, it could be the case they do not memorise everything. Therefore, I have asked them if they could recommend me any documents where I can find the information they referred to in the interviews. In addition to the interviews, these documents are analysed as part of the empirical research. In addition to official documents, documents such as news articles and reports of CSOs have been used. Unofficial documents are useful to assess the preferences of actors, as they capture the political discussions that have led to decisions in the GCF board. This is not the case with official board documents, because they only contain information about the decisions that are actually taken and not about the political discussions that have resulted in the non-decisions.

4.5. Data analysis

Directly after each interview, a detailed script has been made, in which the chronological order of the interview has been followed to maintain the 'narrative' of the interview. The interviews are not fully transcribed, as this was not a requirement of the research project and this would have been a very time-consuming process for 17 interviews. To express specific quotes or paraphrases, however, the records have been used during the reporting process.

The interviews have been analysed through a process of coding, in which predefined topics from the literature were leading. The codebook in annex 3 gives an overview of the main topics that have derived from the data, including more detailed subcategories, which express how the respondents give meaning to the concepts. Where new topics arose from the data that have not been taken into account before the data collection, they have been placed as a subcategory under existing topics. See for example the topic of 'policy gaps' in the codebook (annex 3).

The process of coding started out manually, as coding on hard copies gives the researcher more ownership over the data because it requires intensive reading (Saldana, 2015: 23). To efficiently organise and reconfigure the data, the software programme NVivo has been used afterwards. NVivo makes it possible to visualise which codes are dominant and makes it easy to access all the paraphrases of the total data set that refer to a specific code, which again enables for analytical reflection (Saldana, 2015: 23).

4.6. Quality criteria and limitations of the research

4.6.1. Reliability

Reliability relates to the question if measurements are conducted consistently and systematically. If another scholar would conduct the research again, he or she should encounter the same outcomes (Bryman, 2012). 'Interviewer effects', caused by variation in access, variation in the answers informants give and variation in interpretation of the data, are unavoidable in qualitative research (Mosley, 2013). This makes exact replication unlikely. However, efforts to increase the reliability of the research have been made through enhancing transparency by recording and reporting the data-generating process. For data-collection, all the interviews are recorded with consent of the informants. For data-analysis, elaborate interview notes and information on the way the researcher derives the themes from the interviews has been provided.

4.6.2. Validity

Internal validity

Internal validity refers to the question if the right value is measured to answer the research question. This has been enhanced in this research in three ways (Mosley, 2013: 20). First, it is important to ask the right questions in interviews that will measure the concepts the researcher is interested in. Therefore, pilot interviews have been conducted beforehand. After the process of data collection, paraphrases have been verified with the respondents, to ensure their viewpoints are expressed correctly. Secondly, it must be ensured that the information informants give is accurate. Although socially desirable answers are sometimes unavoidable, internal validity is maintained by making sure issues are captured from all points of view through interviewing actors from different positions. Furthermore, earlier conducted interviews are used as meta-data to validate the answers of informants. Thirdly, internal validity refers to the researcher's interpretation of the data: to what extent do the viewpoints of respondents revealed in the interviews correspond with the researcher's theoretical concepts? To increase the validity of interpretation, this research has used a triangulation strategy to evaluate the interview data in light of other empirical material, such as primary policy documents and secondary sources that interpreted policy documents (Bryman, 2012: 392).

External validity

External validity generally refers to the extent to which the conclusions of a study can be generalised to a larger population. As this research contains a single case study, external validity from this perspective is low. However, the single case study reflects the aim of the research to understand a complex phenomenon in depth, which makes the choice for this research design valid (Yin, 2013). Moreover, in qualitative research some scholars speak of 'analytical generalisation', referring to the extent to which findings of the specific case in this research can be translated to a broader theoretical context (Yin, 2009: 43). In this research analytical generalisation can be enhanced through the generation of theory out of the findings that might be applicable to the broader context of international climate finance, the aid landscape or financing global public goods.

A final limitation that is worth mentioning is the lack of counter factual evidence in the research. As the GCF is still in an early stage of implementation, the research can only result in conclusions about the expectations that different actors have with regard to the functioning of the Fund. They might change their points of views over a few years' time. Since assessing whether expectations align or misalign is important to create knowledge dissemination about how to overcome the current issues in the GCF, measuring perceptions is considered relevant.

5. Results

This chapter presents the results from the interviews and document analysis in three sections, which will cover the three hypotheses respectively. In the analysis of the interview results the position of different actors and the nuances in the hypotheses are considered. Moreover, factors will be discussed that have not been taken into account in the research design, but are still valuable in explaining the outcomes. The chapter ends with an overview of the relations between the GCF's features and aspects of effective climate adaptation finance.

5.1. Private sector engagement

This section presents how informants think that private sector engagement is likely to lead to effective climate adaptation finance in terms of availability. Moreover, the GCF's project portfolio is analysed to see whether private finance is currently used in adaptation projects. Two themes are discussed subsequently: the reality of private sector engagement in adaptation projects (5.1.1.) and the ambiguous meaning of 'private sector engagement' (5.1.2.). The section ends with a conclusion regarding hypothesis 1:

> *The characteristics of adaptation make it unlikely that private sector engagement will lead to effective climate adaptation finance in terms of availability.*

5.1.1. The reality of private sector engagement in adaptation

The literature describes that the private sector is driven by cost-effectiveness norms, which raise questions about the possibility and desirability of private sector finance for adaptation (Gomez-Echeverri, 2013; Schalatek, 2012). This is confirmed in the interviews by respondents of contributing countries and the private sector. Firstly, certainty of the impact of adaptation projects is missing, while the private sector needs certainty about returns on investment (mentioned by 5 respondents). Secondly, in case there is a return on investment, it takes a long time for the benefits to materialise (mentioned by 3 respondents). A private finance climate expert at the London School of Economics (PS3, April 13, 2017) summarises these difficulties in the following statement:

> "The first and main problem [of adaptation] is the cash-flows, which are less mapped out in adaptation projects. It is unclear what benefits and risks are linked to those projects in terms of cash-flows. The second problem is the time-horizon. Private sector investors have a short time horizon, while the returns of adaptation projects will pay off over a very long time span."

Moreover, informants point out to the incentives of the private sector that form a mismatch with adaptation projects: adaptation is not economically viable, while this is the main incentive of the private sector (mentioned by 10 respondents). Because of this mismatch, the GCF is "lagging behind its mandate" to involve the private sector, as a policy advisor of the recipient countries states (RC1, May 22, 2017)[5].

The reality of private sector engagement becomes clear in an analysis of the GCF's project portfolio (annex 4), which shows that the GCF solely has the private sector as partner in mitigation projects and some cross-cutting projects (projects that focus on both adaptation and mitigation). In addition, co-financing of the private sector is not a criterion for adaptation projects in the GCF Investment Framework, while it is for mitigation projects (GCF, 2014: 30). This reality contradicts the objectives that are formulated by contributing countries in their 'Climate finance roadmap to the US$ 100 Billion' (Australian Ministry of Foreign Affairs, n.d.). In this document, 39 contributing countries explicitly state three times that private sector finance needs to be mobilised and attracted for adaptation. Contributing countries consequently leave themselves with a dilemma: grant-based public finance is insufficient to respond to increasing adaptation costs, though in the current situation it seems unlikely that this gap could be filled with private finance.

It is presented in the literature that whenever actors are unaware of each other's 'frames' through which they see problems and solutions, efforts to reach common solutions will result in a "dialogue of the deaf" (Koppenjan & Klijn, 2004). The interviews show that public and private parties understand each other's frame of reference, but it remains difficult to reach common solutions. All private sector experts are aware of climate stress, but as a private sector expert of the commercial bank UniCredit (PS2, April 5, 2017) mentions: "as long as the economic viability of a project is lacking, private sector financing for adaptation remains a fairy tale". A representative of the contributing countries expresses his awareness of the 'private sector frame' by stating that "innovative solutions do not come from bureaucrats, but to commit them [the private sector] there needs to be something in it for them" (CC2, May 8, 2017). This finding shows that collaboration between the public and private sector is inhibited by a lack of innovativeness of the public sector of how to make adaptation attractive for the private sector.

Respondents have consensus on the responsibility of the public sector to reduce risks for the private sector, but this role is interpreted in different ways. While some contributing countries

[5] To increase the readability of the analysis, acronyms are used for the references without quotes. Acronyms are also used for interviewees that wish to have their identity concealed completely. The full references can be found in annex 5.

emphasise the importance of the GCF to offer guarantees (CC3; CC4), several actors state that this is not enough (CC2; PS1; AE4), as "guarantees will not lead to a sustainable GCF" (Staff member FMO (AE4), May 23, 2017). One private sector expert (PS1, May 11, 2017) proposes investments in analytical tools and data software to assess future climate risks in developing countries as the first step towards private sector engagement:

> "If you look at the possibilities of engaging the PS in adaptation in the GCF, it depends on how you interpret the 'mandate' of financing of adaptation. What should be interpreted as part of the mandate is to develop analytical tools and to provide data to assess future climate risks."

This finding relates to the study of the UNEP Finance Initiative (2016) that was presented in chapter 2. This report concludes that providing more accurate information of climate impacts should be a responsibility of the public sector. Contributing countries emphasise climate-smart technologies as well in their roadmap (Australian Ministry of Foreign Affairs, n.d.: 16). Although adaptation measures are not financed from private sources within the GCF, informants identify several examples of private sector participation in adaptation on the domestic level in developing countries. One example is a micro finance programme for homeowners in the Caribbean who can receive a loan to make their house more climate resilient and pay it back to the fund that has provided the loan over time, as one interviewee explains (RC2, June 5, 2017).

5.1.2. Ambiguous meaning of private sector engagement for adaptation

In the last quote, the respondent speaks about the 'interpretation of the mandate' of financing adaptation. From the interviews, it follows that there are different interpretations of private sector finance for adaptation. Some informants speak about domestic private enterprises in developing countries that need to be encouraged to act against climate stress (RC1; RC2; CC3; CSO1), while others emphasise that investments from international financiers are necessary to scale up adaptation finance (CC2; CC4; PS3). A few respondents mention both types of the private sector (AE4; PS1). Regarding the GCF policy of private sector finance, it does not clarify the type of private sector the GCF aims to involve. The mandate of the GCF to engage the private sector is described as follows: "The Fund will have a private sector facility that enables it to directly and indirectly finance private sector mitigation and adaptation activities at the national, regional and international level" (GCF, 2011: art. 41). Moreover, the facility will promote participation of the private sector on the domestic level in developing countries (GCF, 2011: art. 43). It does not follow from this definition how private finance can be used for adaptation. Therefore, a common understanding of how to engage the private sector remains absent.

Concluding hypothesis 1

The feature of the GCF to engage the private sector in adaptation projects is currently not expected to lead to a higher availability of finance for adaptation. Chapter 3 predicted there is a misfit between private sector incentives and the characteristics of adaptation measures. This has been confirmed, as interviewees describe the uncertain character of adaptation as the main reason why it is difficult to attract the private sector. Another barrier is the ambiguity surrounding the type of private sector the Fund wants to commit. This finding aligns with the assumption in chapter 3 that different interpretations of a policy constrains effectiveness, as it could lead to non-action. The reality that the private sector is mainly involved in mitigation projects and some cross-cutting projects leaves the Fund with a dilemma, considering private sector engagement is perceived as crucial to ensure the GCF's sustainability.

5.2. Country ownership and direct access

This section aims to draw a conclusion regarding hypothesis 2:

> *High transaction costs for developing countries make it unlikely that the feature of 'direct access' will lead to effective adaptation finance in terms of accessibility.*

The interviewees mention two challenges to accessibility: accessing funding depends on the coordination between the GCF and other funds, and the lack of capacity of recipient countries. These two themes are discussed sequentially.

5.2.1. Coordination between funds

In the literature it has been found that effectiveness of different decision-making systems with shared objectives depends on the degree of coordination between these decision-making systems (Biermann, 2009). Recipient countries acknowledge that the architecture of multilateral climate funds is complex and together with national accredited entities they agree that comparable access criteria of funds enable them to access funding more easily (RC1; AE2; AE3).

Two informants mention that access to the Adaptation Fund has made access to the GCF easier for the organisation (AE3; RC2). An official of the national accredited entity from Senegal (AE3, May 12, 2017) states:

> "Being accredited at the Adaptation Fund has made it so much easier for us to become accredited at the GCF, as we were much more prepared in terms of documents like the fiduciary standards and Environmental and Social Safeguard (ESS) assessments."

This is confirmed in the 'fast track accreditation criteria' of the GCF, which lists the application requirements that entities can skip when they already receive funding from other funds, such as

the GEF, AF, or DG Development and Cooperation of the EU (DEVCO) (GCF, n.d. (b)). This shows that the GCF is using coherent access criteria compared to other funds, which decreases transaction costs for recipient countries in terms of time and resources spent on the accreditation process.

According to several policy reports and scholarly work, the GCF is expected to become the primary funding channel (Nakhooda et al., 2013; Pickering et al., 2017). Representatives of recipient countries express in the interviews that they do not want to have the GCF as main funding channel. This is because the dependency on a single fund is too risky. Especially the accredited entities see it as crucial to their survival as organisation to target different funds (AE 1-5). b A spokesperson of the regional Pacific accredited entity (AE2, May 18, 2017) mentions: "the reality is that organisations are scrambling for projects".

Contributing countries do not find this outlook desirable either. They all emphasise a country's autonomy in choosing a funding channel, except for one respondent who states that: that "a one stop shop principle is desirable because access to new funds always comes with administration costs." (CC2, May 8, 2017).

In addition to the desirability of having several funds, respondents give another explanation for the existence of multiple funds within the climate finance architecture: the institutionalisation of multilateral climate funds. The GCF is not expected to take over any other multilateral funds, as there is still money running through other funds (CC2; CC5). The CIFs of the World Bank originally contained a 'sunset clause', which means that the GCF is expected to take over their work when it has become fully operational and capable to deliver at scale (Amerasinghe et al., 2017: 22). It follows from the interviews that contributing countries are reconsidering this sunset-clause, because it is "not important to have sunset-clauses of other funds anytime soon, before there is a stronger functional GCF" (CC2, May 8, 2017).

In chapter 3, it has been defined that horizontal coordination between decision-making systems has a positive effect on the performance of an institution (Biermann et al., 2009). Although the institutionalisation of multilateral climate funds makes horizontal fragmentation in the climate finance system inevitable (Biermann et al., 2009), the findings show the GCF takes efforts to coordinate by linking its access framework to other funds, and thereby reduces the transaction costs for accredited entities and recipient countries.

All informants acknowledge that the greatest challenge to access remains the lack of capacity in recipient countries. The subsequent section will elaborate on this, by describing the transaction costs that recipient countries encounter in gaining access to the GCF.

5.2.2. Lacking capacity

In theory, the direct access method of the GCF should reduce the 'administrative nightmare' for recipient countries to gain access through multiple implementing entities (Tenzing 2016; Savacool et al., 2016). Only 16% of the projects is currently channeled through national access, compared to 75% through international access (GCF portfolio, n.d.(a)). Several informants mention that this is due to a lack of capacity of the domestic entities in recipient countries compared to the international agencies, and that access to the GCF results in an "unequal level playing field" for domestic entities (RC1-2; AE2; CC4; CSO 1-2). A major bottleneck in becoming accredited and applying for funding for national entities is the access to statistical data that is necessary to fulfill the application requirements. A policy advisor of the Dutch government (CC3, April 24, 2017) illustrates this:

> "It appears that small and vulnerable developing states cannot comply with all the requirements to apply for funding. The access to statistical and high-resolution climate data is a bottleneck for these countries."

Moreover, recipient countries tend to prioritise international access, because their resources are limited and the threats of climate change ask for urgent action. This can be illustrated with the following quote:

> "Some small countries prefer the World Bank or UNDP to take the lead, because they do not have the capacity to implement projects. I am aware this constitutes problems for capacity building within a country." (RC1, May 22, 2017).

Representatives of CSOs mention that the trend of international access is paradoxical when it comes to country ownership. The feature of ownership is in the interest of recipient countries, but as long as contributing and recipient prioritise access through big international entities over domestic access, capacity within the country will never be built (CSO1; CSO2). One of the main conclusions of the report 'The Green Climate Fund: A CSO guide for engagement and local access' strengthens this finding: "We believe that if the GCF is really serious about its vision, the national and subnational organisations (including local communities) should be at the core of its policies." (Soentoro, Rochaeni, Coltman & Robben, 2016).

Chapter 3 described that transaction costs are higher when actors are excluded from the decision-making systems. This was referred to as 'actor fragmentation' and believed to negatively influence the performance of an institution (Biermann, 2009). The data confirms this, as recipient countries that are excluded from the main decision-making institutions have higher transaction costs in the form of time and resources that are necessary to collect information about access.

In the GCF 24 developing countries are directly part of the board, either as current or alternate board member. Other countries are part of the constituency that the board is representing. There are 155 countries that have the status of recipient country, which means that 131 countries are relying on these 24 board members as a source of information about the GCF processes. Because not all board members are accessible to their constituencies to the same extent, the GCF is experiencing difficulties in finding ways to communicate to countries in a cost-effective way (RC2). A policy advisor of the Caribbean SIDS (RC2, June 5, 2017) illustrates the importance of being accessible as a board member:

> "We have been very lucky that we are so familiar with processes in the GCF thanks to the fact that we have a board member representing us directly. For countries that do not have a seat in the board, I can imagine it must be hard to navigate yourself through the GCF. Therefore, it is important that board members are accessible for their whole constituency."

The fragmentation between the GCF board and domestic governments can be perceived as vertical fragmentation, as it exemplifies fragmentation between different levels of governance (Young, 2011; Pickering, 2017). Vertical fragmentation of actors does not only exist between the board level and domestic level, but also between actors on the domestic level. The inclusion of stakeholders seems to depend on the capacity and willingness of the NDA to play a coordinating role between governments local communities. All informants mention that cross-sectoral collaboration between different ministries is indispensable in GCF projects, because adaptation is a topic which relates to the fields of different ministries. Senegal exemplifies a best practice:

> "The problem with the NDA in some countries is that it only comes from one department, this can be finance, environment energy and so on. This creates issues in case there is no coordination between ministries, because the NDA cannot know what is happening everywhere. As a solution to enable the NDA to get all the necessary parties from the government involved, Senegal has set up a National Committee of different departments." (AE3, May 12, 2017).

This good practice is not happening everywhere, as the ability of the NDA to play a coordinating role depends again on the capacity of the government in the specific country context. A climate finance specialist of the WRI states:

> "The NDA is meant to be an institution, not an individual. However, in some countries, the responsibilities of the NDA currently rest with one person. This individual may have other responsibilities as well, meaning that they can only dedicate part of their time to fulfilling the role of the NDA." (May 11, 2017).

Representatives of CSOs add that inclusion of domestic stakeholders does not only depend on the capacity of the NDA, but also on the willingness of the NDA. A representative from CSO BothENDS (CSO1, April 20, 2017) reflects on the different interests of national governments and local communities:

> "In many countries the NDA is established within the Ministry of Finance. The Ministry of Finance however is usually not familiar with climate and gender issues, nor with civil society engagement. The GCF has not set mandatory rules for the operation of NDAs, but only provides best practice guidance. This gives a lot of leeway to NDAs, for instance in relation to multi-stakeholder decision-making."

The GCF board aims to develop mechanisms to encourage stakeholder participation (GCF, 2011: art. 71), although these mechanisms are not yet developed. Five informants mention that it is comes down to the responsibility of the accredited entity to ensure that the needs of local communities are taken into account in the design and implementation of adaptation projects. Consequently, it depends on the willingness and capacity of the accredited entity whether stakeholder inclusion happens in practice.

Concluding hypothesis 2

It can be concluded from the data that high transaction costs for developing countries make it unlikely that the feature of 'direct access' will lead to effective adaptation finance in terms of accessibility. While the GCF takes measures to lower transaction costs through coordinating its eligibility criteria with other multilateral funds, horizontal fragmentation is not the main constraint to access. The main challenge is the lack of capacity of national accredited entities to design qualitative proposals. The application procedures to become accredited and to apply for funding put a large burden on the bureaucratic capacity of organisations in the form of time and resources, such as access to information and skilled people. This gives international organisations an advantage over national organisations in vulnerable countries. Since urgent action for adaptation measures is needed to reduce the immediate risks of climate change, governments prioritise international access and the imbalance between direct and indirect access thus remains. Whether the transaction costs in terms of information are lowered through the inclusion of relevant stakeholders on the domestic level, depends on the role of the NDA in the country-specific context.

5.3. Different norms, different outcomes

In the operationalisation of effectiveness different aspects of 'effective use' have been distinguished, assuming that different actors would prioritise some aspects over others. The data shows that all actors think climate finance should be used effectively, but their meanings of 'effective use' indeed diverge, depending on their norms and preferences. Norms, which can be defined as standards of appropriate behavior for actors with a given identity, form the basis for actors' preferences (Finnemore & Sikkink, 2006). This section focuses on norm fragmentation between recipient and contributing countries. In addition to the viewpoints of contributing and recipient countries, the insights from implementing entities are used as they work in close collaboration with recipient countries. There is also norm differentiation between public and private actors. Since the conflicting public and private logics are discussed in the section on private sector engagement (5.1), these will not be discussed here.

The first section (5.3.1) presents the main norm conflict between prioritising 'climate' versus 'development'. It appears that norm conflicts can result in trade-offs between the different features of the GCF, as will be discussed in 5.3.2. The section ends with a conclusion regarding hypothesis 3:

> *Norm fragmentation regarding the desired outcomes of adaptation projects makes it unlikely that the features of the GCF will lead to an overall effective use of climate finance for adaptation.*

5.3.1. Overall development potential versus climate impacts

The literature on environmental aid assumes that developed countries prioritise the ecological conservation of measures, while developing countries prioritise overall development objectives (Hicks et al., 2010; Fritsch & Newig, 2009). Although the research also aimed to explore whether contributing countries have a higher preference for the ecological conservation of measures compared to developing countries, this was not mentioned by respondents themselves as a priority.

Contributing and recipient countries are mainly divided on the discussion to what extent proposals should contain a clear climate impact, or should be more development orientated.

Priorities of contributing countries: climate

The GCF has the mandate to finance the 'additional costs of adaptation' (GCF, 2011: art. 54). The concept of additional costs refers to the amount of funding necessary to implement adaptation

measures that would not be necessary in absence of climate change (GEF, 2012). The full costs of a project for example also include development goals.

All contributing countries mention that the climate impact is most important in a proposal. They express this by stating that the GCF should finance "climate only", which corresponds with the mandate of the GCF to finance additional costs. This can be explained by their fear of the Fund running empty if grants are used excessively (mentioned by 4 out of 5 contributing countries). Although climate contributions are only determined for emission reductions and not for adaptation (UNFCCC, n.d.), political accountability seems to be an important cause of why the climate element in project proposals is important. A climate finance policy advisor illustrates this as follows:

> "It seems to be more a concern of contributors to ensure that projects have a climate impact, because they are accountable towards their parliaments for their climate contributions." (CC4, May 1, 2017).

The importance of additionality does not take away that defining additional costs is difficult. Overall, all informants mention that distinguishing climate and development is an extremely complex task. The German ex co-chair of the GCF (CC1, April 18, 2017) expresses this:

> "From bilateral experience, I already knew that adaptation is a very difficult thing to do. This is because the line is so thin. When you work in adaptation, you are actually in the core of development."

Priorities of recipient countries: development

Recipient countries were originally supportive of the criterion of 'additional costs', because they wanted to ensure developed countries' contributions were complementary to their aid budgets and did not function as a replacement (Bracking, 2015). As AE2 mentions:

> "To single out the climate element in a project is a highly political activity, because a lot of foreign aid is redirected to the GCF, while the climate obligation is that it should be additional to aid and not function as replacement." (May 18, 2017).

The conflicting preferences between contributing and recipient counties on this issue can be illustrated with the proposal from Ethiopia, on which the board could not reach consensus. According to a UNDP officer (AE1, April 11, 2017) the GCF proposal of Ethiopia was an important

moment when this debate over additional costs was brought to the fore. Developed countries, among which the United States, rejected the proposal because it contained a wide range of activities that did not all have a clear climate link (mentioned in 10 interviews). Since the board does not have an official policy yet on rejecting a proposal, the disapproval did not result in a decision nor was it perceived as a formal rejection. Consequently, the 'rejection' is not found in the decisions of the board of that particular meeting (GCF, April 4-6, 2017). In a news bulletin, CSOs express their discontent with this non-decision, stating that: "there is a clear bias against projects focused on people. They are okay with making bridges climate-proof, but not poor communities", referring to a proposal to refurbish a Soviet-era hydropower dam in Tajikistan that got approved in the same decision round (Darby, April 5, 2017). CSOs see the approval of the hydropower dam as evidence that the GCF is not clear about the track record it wants to build and does not pay sufficient attention to the social and environmental sustainability of measures.

Based on their experiences in the board and in working with recipient countries, accredited entities and contributing countries mention that recipient countries are less rigid about following the GCF requirement to single out the climate element of a project. AE3 states:

> "We have noticed that local governments that come to us do not really care about climate, their proposals focus on the development of their local region. I can say that 4 out of 5 projects we see will not contain that climate element." (May 12, 2017).

An important explanation for the focus of recipient countries on livelihood elements is their lack of capacity and experience with environmental impact assessments (AE1-5; CC2; CC3). All respondents express their desire for a larger steering role of the GCF secretariat in providing guidelines for the assessment of the 'climate impact' of adaptation projects. This is also to avoid discussions on the board-level as happened in the Ethiopia case, which could lead to political controversies and are above all inefficient. One contributing country representative illustrates this by saying:

> "In the last board meeting, there has been consensus that the secretariat must take a much larger role in acting as a gatekeeper and sending proposals forward to the board that are good enough." (CC2, May 8, 2017).

A central finding that has not been considered beforehand, is the lack of capacity within the GCF's governance system. It appears that uncertainty about the best possible solution is not only caused by the complex character of adaptation or constructive ambiguity, two causes that have been

explained in the theoretical framework (Koppenjan & Klijn, 2004). This study shows that uncertainty is caused by the lack of capacity of the Fund's secretariat. Seven informants give the residence of the GCF board in South Korea as reason for its lack of capacity, as it is hard to attract staff to this location.

It can be concluded from the interviews that a larger steering role of the Fund in approving proposals could lead to funding proposals that contain a higher climate impact, because recipient countries not always tend to prioritise climate element in their funding proposals. This is due to their preferences for development projects and their limited capacity to single out the climate impact in a proposal. As a consequence of this, the Ethiopia case shows that tensions could occur between country ownership principles and the climate impact of proposals. Notwithstanding, the subsequent section will show that there are also converging norms between both parties.

Converging priorities: institutional fit with the local context

Contributing and recipient countries agree on the importance of country ownership to ensure the sustainability of a project, also when the duration of the project has expired. AE 4 illustrates this:

> "When a project ends, a change has happened on the ground and in order to be sustainable, it needs to be driven by the government, local communities and so on. One-off projects are not going to make a transformational change." (May 23, 2017).

This quote shows that actors attach importance to the institutional fit with the local context, which has been defined in this study as one aspect of 'effective use' of adaptation finance (Newig & Fritsch, 2009). The GCF has a policy to commit the national government, called the 'non-objection procedure', which means that proposals need to be approved by the national government in order to receive funding (GCF, 2014: 18). However, several respondents believe that the commitment of the domestic government must go beyond this formal procedure to create a real institutional fit. AE3 states that "If you do not commit the NDA before this formality, you are too late" (May 12, 2017). Respondents mention alignment of the project with domestic policies (7 times) and with the needs of local communities (6 times) as the actions required, while referring to the role of the accredited entity in collaborating with the government and local communities.

5.3.2. Trade-offs between features

From the data derives a norm conflict regarding the features of the GCF to 'scale up adaptation finance' and 'engage the private sector', and the feature of the GCF to 'address the needs of the most vulnerable to climate change'. Scalability and private sector engagement seem to be

prioritised by contributing countries, while addressing the needs of the most vulnerable is prioritised by recipient countries and CSOs. This confirms the assumption that the 'effective use of climate adaptation finance' is perceived differently by different actors, which will be illustrated in the subsequent section (Ellis et al., 2013). In this thesis is has been defined that 'effective use of adaptation finance' consists of the environmental, social and economic sustainability of projects. The rest of this section shows that contributing countries prioritise economical aspects, while recipient countries and CSOs prioritse social or pro-poor aspects.

Trade-offs between scaling up and targeting the most vulnerable

Table 8. gives an overview of the respondents' preferences regarding projects that aim to produce at scale and projects that aim to address the needs of the most vulnerable countries. It shows that contributing countries are much more explicit about the importance of scaling up finance than they are about pro-poor policies, except for contributing country 3 that emphasises the positive outcomes for gender. The recipient countries and CSOs emphasise the importance of addressing needs of the most vulnerable to climate change throughout the interviews. Three respondents explicitly mention the dissension between the objective to produce on scale and the objective to address the needs of the most vulnerable (CC1; CSO2; RC1).

A press release of the last board meeting confirms these differences in ideological preferences, stating that: "observers at the board meeting complained that donor countries were displaying an ideological preference for large scale infrastructure projects, rather than ones that build resilience within communities." (Darby, April 4-6, 2017).

Informant	Statement scale	Statement pro-poor
CC1	"It is difficult to reconcile the objectives of effectiveness' and 'efficiency' with the objective to address the needs of the most vulnerable"	-
CC2	"Now we see a few small-scale projects here and there. The challenge is – also for development assistance in general - to produce at scale. Just having these small islands of perfection does not really bring the world forward".	-
CC3	"The niche of the GCF consists of big transformational investments."	"Gender is a priority."
CC4	"We have an interest to invest in projects in countries such as Mexico, China and South Africa."	-
CC5	"The GCF is an important mechanism to scale up finance and to contribute to the 100 BLN USD goal."	-
CSO1	"Big impact is not only made in big projects."	"The most important criterion is that a project fits with the local needs of the community."
CSO2	"It is an easy thing to do to put a lot of money in big (mitigation) projects, but in doing so you do not automatically reach the most vulnerable"	"The poorest of the poor are the main target of adaptation projects."
RC1	"How the SIDs see the paradigm shift differs from the view of contributing countries. For the LDCs, it is not necessarily big projects."	"They [SIDs] are small and vulnerable to climate change and the GCF has been initially established to protect them. So, it is not an excuse to say now that 'they are not a good investment climate'."
RC2		"It is important to consider what 'transformational' means in the context of the SIDS. Here, you can already have sectoral transformation with one or two medium projects. If you want to have impact on scale, you should go to India. "

Table 8. Preferences regarding outcomes supporting scale and pro-poor outcomes.

Trade-offs between private sector engagement and targeting the most vulnerable

It follows from the data that the objective to involve the private sector is believed to threaten the objective to maintain a balance between mitigation and adaptation: 10 informants mention that reconciling these two objectives is difficult. The main reason for this is that mitigation projects are economically more sustainable than adaptation projects. Mitigation projects are therefore more attractive for the private sector.

The GCF's portfolio currently maintains a balance between mitigation and adaptation measured in projects, but not in volume of finance. Speaking of the number of projects, adaptation is not lagging behind mitigation: out of 43 projects, 18 consist of adaptation (41,8%) 13 of mitigation

(30,2%) and 12 (28 %) of cross-cutting projects (GCF, n.d. (a)). Expressed in volume, however, only 27% of the funding goes to adaptation, 41% to mitigation and 32% to cross-cutting projects.

One informant referred to a recent publication that proposes a revision of the 50:50 balance (Brechin & Espinoza, 2016). The authors argue that in order to become a key player in combatting climate change efficiently and effectively, the GCF should prioritise mitigation over adaptation in countries with a greater emission reduction potential over those that have less potential. This will also contribute to the engagement of the private sector. The argumentation behind the allocation revision is that successful mitigation reduces the need for significant investments in adaptation (Brechin & Espinoza, 2016). This article is another evidence that proposes changes to make the fund operate more effectively and efficiently do not lead to effective adaptation finance in the most vulnerable countries, because mitigation projects get financed at the expense of adaptation projects.

Concluding hypothesis 3

The third hypothesis states that 'norm fragmentation regarding the desired outcomes of adaptation projects makes it unlikely that the features of the GCF will lead to an overall effective use of climate finance for adaptation'. The data indeed confirm norm fragmentation exists: contributing countries and the private sector prefer projects on scale in countries where a return on investment can be made, while recipient countries and CSOs emphasise that small-scale and grant-based adaptation finance is part of the core mandate of the GCF. These objectives appear difficult to reconcile. It is thus unlikely that the features of the GCF will lead to an overall effective use of climate finance for adaptation, as the focus of contributing countries on economic sustainability might threatens the social or pro-poor character of adaptation in the most vulnerable countries. Another important finding related to this hypothesis is that the development preferences of recipient countries are not so much a sign of their unwillingness to invest in proposals that target climate instead of development, but are mainly a sign of their inability to develop high quality funding proposals. Since the GCF secretariat does not provide clear policy guidelines nor agreements of the interpretation of the 'climate impact' in proposals, this remains a major issue for the GCF to finance climate adaptation effectively. The discussion in the next chapter will elaborate on the causes of this policy gap and its consequences for effective climate adaptation finance.

5.4. Overview

Table 9. gives an overview of the perceived relations between the features and the different aspects of effectiveness. The grey cells have not been part of the findings, as the hypotheses did not cover all features and all aspects of effectiveness.

[redacted] **Effectiveness of climate adaptation finance**	**Availability of adaptation finance**	**Accessibility of adaptation finance**	**Effective use of adaptation finance**			
Features [redacted]			Environment	Economic	Social	Institutional fit
Private sector engagement	Will not enhance	*No relationship assumed*	*No relationship assumed*	Will enhance	Will not enhance	*No relationship assumed*
Country ownership	*No relationship assumed*	Not functioning optimally, due to lack of capacity	*No relationship assumed*	*No relationship assumed*	*No relationship assumed*	Will enhance, on the condition that NDA is committed
Scaling up adaptation finance	Will not enhance	*No relationship assumed*	*No relationship assumed*	Will enhance	Will not enhance	*No relationship assumed*
Targeting most vulnerable	*No relationship assumed*	*No relationship assumed*	*No relationship assumed*	Will not enhance	Will enhance	*No relationship assumed*

Table 9. Perceived relations between features and climate adaptation effectiveness.

6. Discussion of findings

This chapter discusses the findings of the study that require further explanations in the light of other research (6.1). Moreover, the chapter deliberates upon the methodological limitations of the research and gives recommendations for future research in which these limitations can be addressed (6.2).

6.1. Explanations of the data in the light of other research

A major finding of the research is that the features of the GCF are often perceived as 'ambiguous' by different actors, leading to different interpretations of the features. Actors refer to 'policy gaps' in the governance framework of the GCF, by which they mean policies that leave room for interpretation and create uncertainty about decisions. In the theoretical framework of this thesis it has been defined that uncertainty could lead to 'broad and shallow decisions', whereby uncertainty can be caused by a lack of knowledge about cause-effect relationships, or by disagreement about the nature of the problem and solutions (Bradshaw & Borchers, 2000; Koppenjan & Klein, 2004). The latter form of uncertainty can be strategically beneficial, because it allows actors to interpret decisions in a way that suits their interests.

Two major policy gaps seem to evolve around the meaning of adaptation and the meaning of private sector engagement. Further elaboration will explore these policy gaps, and offer an explanation as to why they occur and their consequences for the effectiveness of the GCF.

The ambiguous meaning of adaptation

Hall's (2017) research about the meaning of 'adaptation to climate change' concludes that states have not agreed over a precise definition of 'adaptation', because they are uncertain about the exact nature of the task. She calls this 'epistemic ambiguity' and distinguishes it from 'strategic ambiguity'. The latter means that states do not reach consensus over a task due to political differences. In this research, the ambiguity around adaptation seems mainly epistemic, because interviewees have expressed their difficulties in defining adaptation and distinguishing it from development. From the theoretical framework regarding the theory about 'environmental aid', it had been assumed that developing countries tend to prioritise the overall development potential of a project (Hicks et al., 2010). It follows from the results that this can be better explained through their lacking capacity to develop proposals with a strong climate element, than through their lack of willingness. Both developed and developing countries have expressed their preference for proposals with a clear climate impact. The preference of developed countries can be explained by their political accountability to finance climate adaptation, and developing countries want to

ensure that climate finance is additional to ODA finance. The preference of both parties for more certainty alludes to the epistemic ambiguity of the meaning of adaptation.

The consequence of epistemic ambiguity leads to the proliferation of a wide range of adaptation activities that vary in their narrow or broad definition of adaptation (Hall, 2017: 46). Based on this research, there are three problematic consequences of epistemic ambiguity in the GCF. Firstly, there is uncertainty of what constitutes 'adaptation' as distinct from development, which leads to highly political discussions in the board about the approval of projects. One informant has described the GCF board as "the UNFCCC in small". This political nature constrains the operational functioning of the Fund, thus inhibiting the Fund's mandate to deliver finance efficiently and effectively. Secondly, a lack of guidance on what type of projects the GCF should approve leads to an inconsistent track record of approved projects. This also constrains the effectiveness of the Fund, because it becomes difficult to disapprove projects in a later stage on the same grounds of which a similar project has been approved in the past. Finally, epistemic ambiguity attributes a large responsibility to implementing entities to define and frame the adaptation element in proposals. This disadvantages the national implementing entities compared to the big international organisations, as the latter have more capacity and experience with activities such as developing warning systems or environmental planning. In this way, epistemic ambiguity makes the emancipation of national implementing entities in gaining access to funding unlikely.

The ambiguous meaning of private sector engagement

A second major policy gap is the meaning of private sector engagement within the GCF: there is no common understanding of the role of the private sector to finance adaptation. Pauw (2017) arrives at similar conclusions in his research about the way contributing countries and development banks interpret the role of the private sector in adaptation. Contributing countries have a broad understanding of private sector engagement and in their submissions to the UNFCCC on how to achieve the USD 100 billion goal they refer to private sector finance in general. Development banks on the implementation level see these objectives as too abstract and have a more narrow definition of the private sector: they see the private sector as a partner to implement adaptation actions on the domestic level. In line with Pauw's (2017) findings, this study shows that there are successful examples of private sector engagement on the domestic level in developing countries that create jobs and tax revenues, while on the global level the norms of the developed and developing countries remain divided regarding the role of the private sector in adaptation. The first encourage private finance for the sake of scaling up climate finance, while the latter are afraid that private finance will lead away from adaptation projects in the most vulnerable countries.

As long as different actors lack a common understanding of how to engage the private sector, it is unlikely that the feature of the GCF will lead to a higher of availability of climate finance for adaptation. Instead, parties should look for opportunities, such as providing technical assistance to make the private sector more aware of climate risks. This recommendation is given by Pauw (2017), without asking the private sector directly. In this study private sector representatives have been interviewed and they confirm that climate smart technologies to predict adaptation impacts are the first step to engaging the private sector.

Although multilateral negotiations are inherently characterised by ambiguity due to political differences, the policy gaps in the GCF seem to be mainly caused by the uncertainty of the task of adaptation at hand. In drawing this conclusion, it must be realised that the GCF is a recently created fund. The GCF is in its operational phase, but at the same time it is constantly learning and adapting its policies. Several interviewees have described this process in the GCF as "building a plane while flying".

The current lack of capacity within the GCF itself forms a major challenge to provide developing countries with guidance on how to design proposals with the highest climate impact possible. In order to keep the plane going, capacity of the Fund to give guidance and capacity in developing countries to design high quality proposals remains, however, crucial.

6.2. Methodological limitations and needs for further research

This explorative study has some limitations that could be improved in further research. The main shortcomings are the inability to measure effectiveness in terms of problem-solving capacity, the incapability to take into account the context as an explanatory factor and the underrepresentation of developing countries in the interview sample.

The GCF is still in the early stage of implementation, which means it cannot be measured in objective terms whether the proposed policies contribute to the effective use of climate finance for adaptation. Therefore, this study has measured the effective use of climate finance in expectations and perceptions. This has the consequence that the results of the research are preliminary, as people adjust their opinions over time on the basis of how the policies of the GCF will be monitored and evaluated.

Nevertheless, this study may be considered as a relevant contribution to the climate finance literature, as the framework of effectiveness developed in this thesis provides a more consistent understanding of climate finance effectiveness for adaptation than was available in the literature and pays special attention to perceptions of different actors. This framework could be applied to

other funding mechanisms as well, such as ODA or bilateral funds, as these funding mechanisms are also characterised by a broad range of state and non-state actors.

Moreover, it is believed that the domestic context is an important factor in explaining effectiveness. Since this research is focused on a fund as research unit and not on a specific country or region, it has not been possible to systemically take contextual factors into account. The importance of context dependency can be illustrated with the feature 'country ownership'. The policy of the GCF regarding country ownership requires that the NDA approves a project proposal before it can be submitted to the board. Interviewees have expressed concerns that country ownership will only lead to an institutional fit with local context when the NDA takes a pro-active role that goes beyond this formal requirement. They mentioned examples of 'good practices' whereby developing countries have set up 'cross-sectoral climate units'. They also pointed out less effective examples of individuals taking up the full task of being an NDA.

Although a detailed assessment of contextual factors in different settings was outside the scope of this research, it can be learned from this study that effectiveness is highly contextual and the effectiveness of generic policy frameworks can only be assessed when they are implemented in a specific context. A further investigation of contextual factors could be part of future studies that assess the effectiveness of climate finance policies in different settings, such as least developed and middle income countries. In addition, these studies could focus on relevant contextual factors, such as good governance or the economic conditions in these countries.

A final shortcoming is that it has been difficult to gain access to representatives of recipient countries, with the result that they are underrepresented in the sample: two representatives of recipient countries are part of the sample, against five representatives of contributing countries. To account for this, implementing entities that operate in developing countries have been asked about the preferences of recipient countries. These entities work closely with recipient countries in designing proposals and are therefore believed to present the recipient countries' view in a reliable way. This limitation can however serve as an interesting outcome of the research, as it enlightens the discussion about the true emancipation of developing countries in the GCF. While the board structure formalises the equal representation between developed and developing countries, the issues surrounding country ownership indicate that developing countries still have less voice compared to developed countries. On a broader note, this outcome opens up a venue for further research into the formal position of developed and developing countries in intergovernmental organisations (de jure), and their actual position (de facto).

7. Conclusion and policy recommendations

The Green Climate Fund is a multilateral climate fund that has become fully operational in 2015 to deliver finance for climate adaptation and mitigation objectives in developing countries. It is the first fund that follows the Paris Agreement in maintaining a balance between funding mitigation and adaptation projects. It is therefore expected to play a significant role in delivering finance for adaptation. In this study, the fragmented nature of the climate finance architecture and the complex character of adaptation have been assumed to challenge the potential of the GCF to finance climate adaptation effectively. Taking these factors into account, it has explored whether the features of the GCF can be expected to lead to effective climate adaptation finance.

The study has focused on four features that cover the main objectives that the GCF aims to accomplish: (1) private sector engagement (2) country ownership (including direct access for developing countries) (3) scaling up adaptation finance and (4) addressing the needs of the most vulnerable countries. A coherent definition of *effective climate finance for adaptation* is not available in the existing literature. Therefore, three dimensions of effectiveness have been developed to assess whether these features are likely to lead to effective climate finance for adaptation. Firstly, effectiveness depends on whether the features add to the availability of adaptation finance. Secondly, the features need to enhance the accessibility of adaptation finance for developing countries. Finally, adaptation finance must be used effectively on the ground. In this study it has become evident that actors differ in their perceptions of what effective use entails. Therefore, effectiveness is divided into the sub-dimensions of economic, social and environmental sustainability. Along with these aspects, the institutional fit with the domestic context has been perceived as an important factor determining 'effective use'.

Hence, what can be said about the effectiveness of each feature?

7.1. Conclusions per feature

Private sector engagement

For private sector engagement it has been assessed whether it is expected to lead to effectiveness in terms of availability of adaptation finance. In line with hypothesis 1, "The characteristics of adaptation make it unlikely that private sector engagement will lead to effective climate adaptation finance in terms of availability", it is *not* expected that private sector engagement will lead to a higher availability of adaptation finance anytime soon. GPG theory explained that adaptation is characterised by uncertain and long term cause-effect relations. The mismatch between the character of adaptation and the incentives of the private sector that are driven by cost-effectiveness explains why the GCF is lagging its mandate to involve the private sector in

adaptation. Moreover, there is no agreement over the meaning of the mandate, leaving 'private sector engagement in adaptation' as a policy gap. The study also has shown that the Fund's focus on private sector engagement could possibly lead to an increasing amount of mitigation projects with the consequence of distorting the agreed allocation balance between mitigation and adaptation in the Fund. In sum, along with the finding that private sector engagement will not lead to a higher availability of adaptation finance, it might lead the GCF's focus away from adaptation projects.

Country ownership

Country ownership is an indispensable feature to support the sustainability of projects in developing countries. This study has shown that implementing entities of developing countries are behind in gaining access compared to international organisations. This is due to their lacking capacity to develop climate data that will enable them to design high quality project proposals that are prone to be approved by the board. As long as this capacity is not built within countries, direct access will not lead to effective climate finance for adaptation in terms of accessibility. This conclusion is in line with hypothesis 2, which stated that "High transaction costs for developing countries make it unlikely that the feature of 'direct access' will lead to effective adaptation finance in terms of accessibility".

The latter conclusion shows that problems with access have not so much to do with fragmentation of the climate finance architecture, as was assumed is in the literature, but with the need for capacity building to develop qualitative funding proposals in developing countries. This is a finding that has not been taken into account prior to the empirical research. Still, it has important policy implications that will be discussed at the end of this chapter. The problem of capacity building can be understood in the broader context of the aid landscape. Foreign aid is provided to developing countries as they lack the resources to help themselves, while interventions are urgent. This results in an 'aid dilemma', because interdependencies cannot be overcome as long as aid is provided without capacity being built.

Scaling up adaptation finance and addressing the needs of the most vulnerable countries

The features of scalability and addressing the needs of the most vulnerable countries have illustrated a norm conflict between developed countries and the private sector against developing countries and CSOs. The objective to produce on scale is promoted by developed countries. This can be explained by their political accountability: developed countries have an interest in showing that money is flowing, because they made a commitment in the Paris Agreement to increase their levels of climate finance. Scalability enhances the economic sustainability of projects, however, it

might lead away from the pro-poor or social character of measures. This is because projects on scale mainly target mitigation projects in stronger economies that do not address the needs of the most vulnerable countries. According to developing countries, scalability does not match the reality of adaptation projects in the most vulnerable countries, emphasising that the latter is also part of the GCF's mandate. To conclude, norm fragmentation leads to trade-offs between these two features, but these trade-offs are not 'hard' or definite. In line with hypothesis 3, "Norm fragmentation regarding the desired outcomes of adaptation projects makes it unlikely that the features of the GCF will lead to an overall effective use of climate finance for adaptation", this study has shown that norm fragmentation exists, although different perceptions on effectiveness do not necessarily constrain effective climate adaptation. The main message is that it is important to raise awareness how both objectives can be achieved without letting one dominate the other. This all depends on the balance the GCF will maintain in funding small-scale adaptation projects in vulnerable countries and large-scale mitigation projects in bigger economies.

Based on the literature, it has been assumed that norm fragmentation between developed and developing countries has implications for the climate impact of measures: developed countries prioritise the environmental impact of measures, while developing countries prioritise overall development outcomes. Developing countries indeed propose projects with strong livelihood components that are sometimes looked at with suspicion by developed countries in the board. This study has contributed to the literature on different preferences along the North-South divide by showing *why* these preferences differ. It is not a sign of unwillingness of developing countries to propose projects with a clear climate impact. Instead, they lack the resources that enable them to design high quality proposals that reflect a strong climate element.

While this explanation was lacking in the climate finance literature, the outcomes of this research show that the explanation of the different preferences between developed and developing countries lies in the lack of capacity for developing countries. This finding contributes to raising awareness of governments about what is really needed to overcome the challenges in the international climate finance architecture: capacity building within developing countries to enable them to build qualitative proposals and consequently increase their access to resources.

Main conclusion

In answering the research question, it can be said that the features of the GCF can be expected to lead to effective climate adaptation finance on the condition that capacity is built. 'Capacity' refers to the capacity in recipient countries to develop high quality funding proposals as well as to the capacity in the secretariat of the GCF, which tends to be a major constraint for the effectiveness of the Fund. Fragmentation and the complex character of adaptation are given factors that can

constrain effectiveness under the condition that there is insufficient capacity in developing countries and within the governing bodies of the Fund. Although these factors cannot be overcome completely, efforts to build capacity could possibly reduce their negative consequences. Capacity building in developing countries should enable them to overcome high transaction costs, such as getting access to information that is needed to gain access to funding. Moreover, access to reliable climate data enables them to assess the impact of climate disruptions, thus reducing the uncertain character of adaptation. Capacity building within the Fund will permit the secretariat to provide more guidance for developing countries on how to increase their ability to receive funding. The latter will reduce the political character of the board and will encourage the GCF to function as an operational mechanism.

The subsequent section provides three policy recommendations based on this conclusion.

7.2. Policy recommendations

Encourage a knowledge exchange

A first recommendation to the GCF would be to increase its focus on technical assistance and training in developing countries, in particular on developing software to assess environmental impacts. It is important this happens through a knowledge exchange, meaning that developing countries get to possess knowledge themselves and do not rely on international organisations to gain access to funding. This will help national accredited entities to make their proposals more climate-proof, thus increasing their chances of getting proposals approved by the board. Besides international organisations, there could be a role for (local) knowledge institutes that do not have the potential to become accredited at the GCF, but can still support developing countries by collecting relevant information on climate assessments. A higher availability of climate-smart technologies will also open up possibilities to engage the private sector, as the private sector would be more likely to participate when the impact of investments becomes clearer.

Develop an access framework for the most vulnerable countries

In the current application framework, small- and large-scale projects need to comply with the same criteria to access funding. This disadvantages the smaller projects, as a lot of eligibility criteria relate to scale. The GCF has an implicit leniency towards the most vulnerable countries when it comes to fulfilling all the proposal requirements. In order to balance the objectives of producing on scale and addressing the needs of the most vulnerable countries, it would be preferred if the GCF had an explicit framework in place through which small projects can receive funding. This framework would then contain milder access criteria that focus less on quantifiable indicators.

Do not discuss everything at the highest level

A framework for small and vulnerable countries would also be desirable from an efficiency standpoint, as it could be agreed upon that smaller projects do not have to come for the board for approval and can be taken care of by the secretariat instead.

A final recommendation thus is that an alternative should be found for letting all the project proposals come for the board. In doing so, it would be desirable to have closer collaboration between implementing entities and the secretariat, complemented by a larger steering role of the secretariat on what types of projects are likely to get approved. This steering role consists of guidelines of what the climate impact in project proposals should contain in order to be eligible. This study has shown that long political discussions in the board on the type of projects it wants to approve result in the Fund being the 'UNFCCC in small' and constrain its ability to serve as an operational mechanism. Moreover, the GCF should take a more honest approach in showing that the secretariat currently falls short of capacity and therefore cannot reach decisions over a short time span. This is also beneficial for the reputation of the GCF, as it gives the public a better understanding of why the Fund is currently not disbursing funding. It will show that the problems the Fund is experiencing are not all due to political reasoning and that it is important to take the cause of lacking capacity more seriously.

As a final note, I would like to mention that it is justifiable that the GCF is operating without fully living up to its mandate to "operate in a transparent and accountable manner guided by efficiency and effectiveness". This is because the threat of climate disasters is now more urgent than ever before. The urgency of the Paris Agreement thus caused that the international community has started to build this plane while flying, which is comprehensible. Nonetheless, the seriousness of climate change impacts makes it crucial that we do not let the plane crash.

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Annex 1. Interview Guide 1

Respondents: contributing countries, recipient countries, implementing entities, civil society organisations

Questions

- Main question
  - Follow-up question

Introduction

- Introduction of the researcher
- Explaining the aim of the interview: assess to what extent the features of the GCF are perceived to lead to effective climate finance for adaptation.
- Explaining the structure of the interview: the questions will be structured along the lines of several features of the GCF, such as country ownership (including direct access) and private sector engagement. Besides, you will be questioned how finance for adaptation can be used effectively, about your experience with stakeholder processes, and your perception on the roles and responsibilities of different actors in the GCF. There is no fixed order of questions and room for your questions and remarks at any point during the interview.
- Duration: 45-60 min
- Consent for recording the interview ok?
  - Explaining that the identity of the informant will be concealed
- Further questions/remarks?

General

- Role of the organisation with regard to climate funding for adaptation within the Green Climate Fund?

1. Accessibility of funding [6]

Contributing country

- To what extent is your country going to channel finance through GCF?
- Is the GCF expected to change anything in the current channels or levels of climate funding?

Recipient country

- What are challenges in accessing funding for your country?
- How does the GCF seem to improve accessibility of funding?

[6] In this topic the type of questions is slightly adapted according to actors' positions.

- What are the consequences of direct access for the quality of adaptation projects?

Accredited entity

- What are the challenges in gaining access to the GCF?
    - What was the role of the NDA in letting your organisation becoming nationally accredited?
- What are the advantages/disadvantages of the existence of different types of funds for your organisation?

Civil Society Organisation:

- How do you consider the potential of the GCF to make finance for adaptation more accessible for developing countries?

2. Availability of funding

The GCF has a Private Sector Facility to directly and indirectly finance private sector mitigation and adaptation projects.

- How do you think private sector leverage could lead to a higher availability of funding for *adaptation*?

- To what extent is funding sourced from the private sector challenging the 50/50 balance between adaptation and mitigation?
    - Do you see a role for public parties in the GCF to reduce risks for private sector?

3. Use of funding

Outcomes

- What are the most valuable criteria in allocation/spending funding? More specifically, with regard to:

- Cost-effectiveness of measures
- Social (impact on livelihoods)
- Environmental (impact on environment)
- Alignment with domestic policies

- Are there any other important criteria you would like to mention?

Process

- What types of stakeholders should be engaged in planning and designing the project proposal?
- To what extent do you see a desirable stakeholder process in GCF projects and programmes?

- What is the desirable role of recipient countries in using funding?
- To what extent do you see this desirable role back in practice?
- How do you see country ownership?

GCF proposals require 'additionally' of climate finance in relation to development.

- How do you perceive the aim of additionally of climate finance in relation to development?
- How do you perceive the consequences of distinguishing adaptation and development for the quality of measures taken?

4. Policy gaps

Statement: the GCF is operational since +-/ 18 months, however, there seem to be policies that still require further specification in order to be effective.

- Do you agree with the above mentioned statement?
- Could you give an example of a policy needs further specification?
- What are the consequences of these 'policy gaps' for the quality of measures taken?

5. **Roles and responsibilities**

- Overall, who do you see as having the responsibility to ensure funding for climate adaptation is used in an effective way?
- Governments (contributing/recipient countries)
- GCF board members/ secretariat
- Implementing entities

- Do you see other parties that (should) have this responsibility?
- To what extent are the above mentioned parties fulfilling their desirable role?

Conclusion

- Is there anything you would like to add?
- Recommendations for further interviews?
- Next steps of the research: In June I will e-mail you with quotes or paraphrases I would like to use in the written report. You can validate the quotations and choose your preferred reference (e.g. to position in organisation or completely concealed).
- Questions?
- Wrapping up: thank the respondent for her/his time and effort.

Annex 2. Interview Guide 2

Respondents: private sector experts [7]

Questions

- Main question

  - Follow-up question

Introduction

- Introduction of the researcher
- Explaining the aim of the interview: assessing to what extent the GCF is successful in fulfilling its mandate to engage the private sector in adaptation projects.
- Explaining the structure of the interview: the questions will be structured along three themes: the private sector facility of the GCF; private sector incentives and the channels of private finance. There is no fixed order of questions and room for your questions and remarks at any point during the interview.
- Duration: 45-60 min
- Consent for recording the interview ok?
  - Explaining that the identity of the informant will be concealed
- Further questions/remarks?

1. Private sector facility

Presentation of art. 41 governing Instrument:
The Fund will have a private sector facility that enables it to directly and indirectly finance private sector mitigation and adaptation activities at the national, regional and international levels.

- How do you think private sector leverage could lead to a higher availability of finance for *adaptation*?
  - Could you describe the main characteristics of a climate adaptation project in which the private sector is or could be involved?

2. Private sector incentives

- What does the private sector need to invest in adaptation projects?
- From the Fund?
- To what extent do you see a role for public parties in the GCF to reduce risks for the private sector in order to leverage finance?

[7] The private sector has a distinctive interview guide with more in-depth questions with regard to private sector involvement in the GCF and its relation to effective climate finance for adaptation. This was necessary to get a better understanding of private sector incentives for climate investments.

3. Channels of private finance

- What are the discussions in the board with regard to private sector finance for adaptation?

- Who are the investors the GCF tries to commit? [Or: who *could* be the investors the GCF *wants* to commit?]

- E.g. private financiers?

- E.g. private enterprises?

- Do you think that the GCF has succeeded in committing the private sector in adaptation projects according to its mandate?

- How come?/ why not?

Conclusion (general)

- Is there anything you would like to add?

- Recommendations for further interviews?

- Next steps of the research: In June I will e-mail you with quotes or paraphrases I would like to use in the written report. You can validate the quotations and choose your preferred reference (e.g. to position in organisation or completely concealed).

- Questions?

Annex 3. Codebook

Private sector engagement

- Misfit between private incentives and adaptation objectives
    - ➢ Impact assessments versus long-term time horizons
    - ➢ Clear versus unclear cash flows
- Public efforts to involve private sector
    - ➢ Speaking the language
    - ➢ Reducing risks
    - ➢ Impact assessments

Country ownership and direct access

- Horizontal fragmentation between funds

➢ Enhancing accessibility

- o Developing countries need different funds
- o Integration of funding criteria

➢ GCF will exist next to other Funds

- o Autonomy of contributing country
- o Institutionalization of funds

➢ GCF as one stop shop

- Vertical fragmentation
    - ➢ Between Fund and Accredited Entities: unequal level playing field national accredited entities
    - ➢ between GCF and domestic governments: exclusion developing countries
    - ➢ Between actors on the domestic level
- Institutional fit
    - ➢ Fit project and local needs
    - ➢ Fit project and national policies
    - ➢ Participation government and local communities

- Cross-sectoral coordination
- Relation between government and Accredited Entity

- Tension country ownership and qualitative proposals
  - Role NDA
  - Lack of capacity
  - Different preferences

Different norms, different outcomes

- Climate versus development

  (Diverging opinions):

  - Country demand should be leading
    - Equity principles
    - Special status most vulnerable countries

  - Fund should be steering
    - Fear of fund running empty
    - Mandate GCF is financing climate
    - Political accountability

  With regard to outcomes

  - Climate resilience is most important
  - Development is most important
  - Financial viability
  - Scalability

(Coverging opinions):

- Additionally is difficult
  - Responsibility of Accredited Entity
- Larger role secretariat

Policy gaps

- Types

➢ What is adaptation?

  - What projects does GCF want to approve?

➢ Which private sector does GCF want to commit?

- Causes

  ➢ Norm conflicts

  ➢ Uncertainty

  ➢ Capacity

- Consequences

  ➢ Different interpretations of decisons

  ➢ Non-decisions

  ➢ Inconsistent track record

Annex 4. GCF Portfolio

Project	Country/Region	Adaptation	Mitigation	Cross-cutting	Financial instruments GCF	Private sector finance
FP001	Peru			X	Grant	
FP002	Malawi	X			Grant	
FP003	Senegal	X			Grant	
FP004	Bangladesh	X			Grant	
FP005	Rwanda/Kenya			X	Grant/ equity	X
FP006	Mexico		X		Grant/guarantee	X
FP007	Maladives	X			Grant	
FP008	Fiji				Grant	
FP009	El Salvador		X		Loan/Grant	
FP010	Armenia		X		Grant	
FP011	Gambia	X			Grant	
FP012	Mali	X			Grant	
FP013	Vietnam			X	Grant	
FP014	Tajikistan/ Uzbekistan	X			Grant	
FP015	Tuvalu	X			Grant	
FP016	Sri Lanka	X			Grant	
FP017	Chile		X		Loan	X
FP018	Pakistan	X			Grant	
FP019	Ecuador		X		Grant	
FP020	Eastern Carribean		X		Grant/loan	

FP021	Senegal	X			Grant	
FP022	Morocco			X	Grant	
FP023	Namibia	X			Grant	
FP024	Namibia	X			Grant	
FP025	Africa/Asia Pacific/Eastern Europe			X	Grant/loan	X
FP026	Madagascar			X	Grant/equity	X
FP027	Africa		X		Grant/equity	X
FP028	Mongolia		X		Grant/loan	X
FP029	South Africa		X		Equity	X
FP030	Argentina		X		Grant/loan	X
FP033	Mauritius		X		Grant	
FP034	Uganda	X			Grant	
FP035	Vanuatu	X			Grant	
FP036	Cook Islands			X	Grant	
FP037	Samoa			X	Grant	
FP038	Africa/Latin America & Caribbean/Eastern Europe/Asia Pacific		X		Grant/equity	X
FP039	Egypt		X		Grant/loan	X
FP040	Tajikistan			X	Grant/loan	X
FP041	Tanzania	X			Grant	
FP042	Morocco	X			Grant	
FP043	Morocco	X			Grant	
FP044	Solomon Islands			X	Grant/loan	X

FP045	India			X	Grant	

(Source: summarised from GCF portfolio, May 15, 2017). Available at: http://www.greenclimate.fund/what-we-do/projects-programmes (Last accessed at 18-06-17).

Annex 5. Interview sample

#	Reference result chapter	Description role	Location and date
1	Contributing country 1 (CC 1)	Ex co-chair of the GCF during period 2011-2013	Phone, April 18 2014
2	Contributing country 2 (CC2)	Policy advisor of Norway to the Norwegian representative of the GCF board.	Skype, May 8 2017
3	Contributing country 3 (CC3)	Policy advisor of the Netherlands to the Dutch representative of the GCF board.	Ministry of Foreign Affairs, The Hague, April 24 2017
4	Contributing country 4 (CC4)	Policy advisor of Denmark to the Danish representative of the GCF board.	Skype, May 1 2017
5	Contributing country 5 (CC5)	Policy advisor of the UK to the British representative of the GCF board.	Phone, May 25 2017
6	Recipient country 1 (RC1)	Policy advisor of the SIDS to the SIDS representative of the GCF board board.	Skype, May 22 2017
7	Recipient country 2 (RC2)	Policy advisor of Antigua and Barbuda to the Latin American and Carribean representative of the GCF board.	Skype, June 5 2017
8	Accredited Entity 1 (AE1)	UNDP policy officer: writes proposals for developing countries.	Deltares, Delft, April 14 2017
9	Accredited Entity 2 (AE2)	Spokesperson of environmental organisation SPREP, which is the regional accredited entity of the SIDS.	Skype, May 18 2017
10	Accredited Entity 3 (AE3)	Policy officer at environmental organisation CSE, the national accredited entity of Senegal.	Phone, May 12 2017

11	Accredited Entity 4 (AE4)	Staff member of Dutch Development Bank FMO.	Phone, May 23 2017
12	Civil Society Organisation 1 (CSO1)	Expert water, climate and gender at the Dutch CSO BothENDS: this CSO advocates for developing countries in the GCF.	BothENDS Amsterdam, April 20 2017
13	Civil Society Organisation and Accredited Entity (CSO2/AE5)	Staff member of conservation International (CI). CI operates both as accredited entity of the GCF and as CSO/advocacy organisation.	Skype, May 2 2017
14	Private sector expert 1 (PS1)	Advisor of the developed countries in the PSAG (private sector advisory group) to the GCF board.	Phone, May 11 2017
15	Private sector expert 2 (PS2)	Private sector expert at UniCredit (commercial bank) and member Finance Initiative UNEP.	Skype, April 5 2017
16	Private sector expert 3 (PS3)	Post-doc researcher at London School of Economics on private climate finance.	Skype, April 13 2017
17	Climate finance associate (general)	Researcher at the World Research Institute (WRI) and follows GCF on foot.	Skype, May 11 2017