

Distribution of Adaptation Finance in the Global South: A Qualitative Investigation of Current Procedures and Criteria

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Dedication

In loving memory of Louise, who I wish could have shared this experience.

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List of abbreviations

AOSIS	Alliance of Small Island States
BASIC	Brazil, South Africa, India and China
BMU	Ministry for the Environment, Nature Conservation and Nuclear Safety
BMZ	Federal Ministry of Economic Cooperation and Development
CBCBA	Community-based Cost Benefit Analysis
COP	Conference of the Parties
CRI	Climate Risk Index
CRS	Credit Reporting System
DA	District Administrator
DRMD	Disaster Risk Management Department
ETF	Environment Trust Fund
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIZ	German Agency for International Cooperation
GNI	Gross National Income
ICS	Island Conservation Society
IPCC	Intergovernmental Panel on Climate Change
ITAP	Independent Technical Advisory Panel
KfW	German Development Bank
LDC	Least Developed Country
LMIC	Lower Middle-Income Country
MACCE	Ministry of Agriculture, Climate Change and Environment

MDB	Multilateral Development Bank
NAP	National Adaptation Plan
ND-GAIN	Notre Dame Global Adaptation Index
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
SDG	Sustainable Development Goal
SeyCCAT	Seychelles Conservation and Climate Adaptation Trust
SIDS	Small Island Developing State
ToC	Theory of Change
UMIC	Upper Middle-Income Country
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar

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Introduction

Climate change is affecting communities across the world, endangering lives and livelihoods through adverse effects such as rising sea levels, increased storms and altered precipitation patterns (Intergovernmental Panel on Climate Change [IPCC], 2013). These impacts are likely to grow stronger in the future as global temperatures continue to rise. Coping with the adverse effects requires adaptation measures, with the purpose of adjusting human and natural systems to current and projected impacts (IPCC, 2014a). While industrialised countries in the Global North have contributed the majority of historical emissions, the impacts of climate change are disproportionately harming countries in the Global South, which also have the least resources to adapt to them (Matthews *et al.*, 2014; IPCC, 2023; Jones *et al.*, 2023). In response, Global North Parties to the United Nations Framework Convention on Climate Change (UNFCCC) have committed to mobilise financial assistance to support climate action in the Global South (UNFCCC, 1992). However, the finance currently available to Global South countries for climate adaptation is negligible in comparison to actual needs, and it is estimated that the finance gap will continue to increase as the needs of recipient countries grow faster than the volume of pledged funding (UNEP, 2023). In addition to this, Global North countries will have to increase investments into domestic climate adaptation, potentially restricting the funds available to support the Global South (Nunn & Kumar, 2019). The scarcity of funding available means that not all adaptation needs can be met, and the issue of how existing funding is allocated is therefore crucial.

The international community agrees that the “particularly vulnerable” countries must be prioritised in the allocation of adaptation finance (UNFCCC 2015a, art. 9/para. 4), without actually defining what it means to be particularly vulnerable. The lack of a clear definition has both technical and political reasons. On the technical side, vulnerability is a complex and context-dependent phenomenon that can vary between and within countries and communities, making it difficult to measure and compare (IPCC, 2022). On the political side, the objective of prioritising the most vulnerable means that countries have an interest in shaping the definition of the term to increase their own access to adaptation finance, making it difficult to agree on indicators (Klein, 2009; Khan *et al.*, 2020). Moreover, providing financial assistance to the most vulnerable countries is not the only concern. Barrett (2012) highlights that a commitment to prioritising the most vulnerable requires not only reaching the most vulnerable countries but also the most vulnerable communities and locations within them. Taking that into consideration, which countries are particularly vulnerable? Are they indeed prioritised in the

allocation of adaptation finance? And how is financial assistance distributed within the recipient countries?

Studies have assessed the allocation of adaptation finance using various indicators and aggregate indices of vulnerability. They indicate that there might be other factors influencing allocation decisions at both the international and subnational levels. Besides climate vulnerability, factors related to (perceived) aid effectiveness and the political and economic interests of providers are found to play a role in allocation at both the international and subnational levels (Alesina & Dollar, 2000; Clist, 2011; Betzold & Weiler, 2018; Barrett, 2014). Studies find differing and sometimes conflicting results on the role of vulnerability vis-à-vis other factors (Barrett, 2014; Robertsen *et al.*, 2015; Robinson & Dornan, 2017; Betzold & Weiler, 2018; Noltze & Rauschenbach, 2019; Saunders, 2019; Weiler, 2019). The conflicting results are partly due to the use of different vulnerability indicators and country samples across the studies. Common for many allocation studies is that they tend to choose vulnerability indicators based on the vulnerability literature and neglect how adaptation finance providers perceive it. Furthermore, allocation studies tend to focus on recipient characteristics and rely on aggregate quantitative data sets that obscure complexities within the aid system. However, scholars highlight that factors on the donor side could be influential in shaping allocation (Peterson & Skovgaard, 2019; Dietrich, 2021).

This thesis is part of the interdisciplinary project *adjust*, which aims to develop guidelines for how to best distribute the scarce available funding for adaptation. My research seeks to understand how adaptation finance is currently distributed by assessing how providers of adaptation finance perceive vulnerability and how they consider it in their decision-making. As such, my thesis is guided by the overall question: *What procedures and implicit and explicit criteria guide the allocation of adaptation aid?* Drawing on Barrett's (2012) multiscalar approach, my thesis consists of three case studies exploring different channels of international and subnational adaptation finance: bilateral adaptation aid from Germany, multilateral adaptation finance from the Green Climate Fund (GCF) and subnational adaptation finance in Seychelles. The thesis offers a threefold contribution to scholarship on adaptation finance. On a theoretical level, it applies insights from the literature on allocation determinants and examines how these play out in practise. On a methodological level, it contributes with a qualitative case study approach to the allocation literature, which has so far been dominated by quantitative studies. On an empirical level, it goes beyond the focus on recipients' characteristics by exploring decision-makers' perceptions of vulnerability and examining how the priorities and procedures of adaptation finance providers influence allocation.

In this chapter, I introduce the current state of the literature on climate and adaptation finance to set the scene for the rest of my thesis. Based on this, I introduce my three case studies and briefly discuss

further work I have produced as part of the broader research agenda on international climate governance. Finally, I reflect on how this thesis contributes to the literature on adaptation finance and on-going policy debates and propose opportunities for further research.

1. The USD 100 billion goal

The international agreement on climate finance and its sub goals provides an important context for understanding adaptation finance and its allocation. In recognition of the need to support countries in the Global South deal with climate change, the UNFCCC states that Global North Parties shall provide financial resources to support climate action in the Global South (UNFCCC, 1992). This commitment was reaffirmed when Parties at the 15th Conference of the Parties (COP15)¹ in 2009 agreed to “mobilise” USD 100 billion per year by 2020 to be “balanced” between mitigation and adaptation (UNFCCC, 2009, para. 8). They furthermore decided that the financial assistance must be “new and additional”, in response to Global South countries’ concern that the provision of climate finance could otherwise drain the funding for other development objectives (UNFCCC, 2009, para. 8). The commitment was repeated in the Paris Agreement at COP21, where Parties also agreed to set a new goal of at least USD 100 billion per year before 2025 (UNFCCC, 2015b).

Climate finance mobilisation has increased steadily over the years. According to the Organization for Economic Cooperation and Development (OECD) (2023), USD 89.6 billion were mobilised in total climate finance in 2021², of which USD 73.1 billion were public climate finance. They estimate, based on preliminary and unverified data, that the USD 100 billion goal is likely to have been met in 2022 (OECD, 2023). If this holds true, the global mobilisation goal was reached two years later than intended. However, the resources contributed towards the USD 100 billion goal are disputed and could be lower than what developed countries have reported (Dasgupta *et al.*, 2015; Carty *et al.*, 2020; CARE, 2021, 2023). Of the USD 59.5 billion that developed countries reported to have provided in climate finance for 2017-2018, Oxfam estimates the climate-specific net assistance to constitute only USD 19-22.5 billion (Carty *et al.*, 2020). The divergent estimates of how much climate finance has really been mobilised stem partly from disagreements over the financial instruments used to deliver climate finance, and partly from issues in how climate finance is reported.

Firstly, developed countries are criticised for counting all financial instrument (incl. loans, grants and investments) at face value, meaning that potential future repayments are not discounted from the

¹ The Conference of the Parties (COP) is the supreme decision-making body of the UNFCCC and gathers annually in different locations (UNFCCC, n.d.).

² Bilateral climate finance data is submitted biennially and data for 2022-2023 has therefore not been compiled yet (see OECD, 2023).

original flow (Carty *et al.*, 2020; CARE, 2021). This is particularly important since the share of loans in public climate finance has increased over time, growing from 52% to 67% between 2013-2021 (OECD, 2020, 2023). The increased reliance on loans is deemed problematic for several reasons, including due to the normative argument that recipients of climate finance are entitled to the resources as a form of compensation (Duus-Otterström, 2016; Baatz, 2018). Furthermore, loans increase the debt burden of already resource-constrained countries, thereby disrupting their economic development (Carty *et al.*, 2020; Cipler *et al.*, 2022). At the subnational level, loans can constitute a barrier for actors that lack creditworthiness or the capacity to manage debt-based financial assistance (Colenbrander *et al.*, 2018; Bracking & Leffel, 2021). Hence, it is important to pay attention to how adaptation finance is delivered because it can interfere with its objectives.

The second issue concerns the reporting system for climate finance. Climate finance mobilisation is reported using the OECD's Rio marker methodology, which was originally developed to track the mainstreaming of the Rio Conventions in development cooperation³ (OECD, 2016). Finance providers label their aid contributions according to the objectives of the UNFCCC, such as mitigation and adaptation, using a three-score system: principal objective, significant objective or no objective (OECD, 2016). The Rio marker system relies almost exclusively on countries' self-reporting and can therefore mask biases in the true size and nature of financial contributions (Weikmans *et al.*, 2017). Weikmans and Roberts (2016) furthermore point out that the Rio marker system is designed in a way that allows for double-, triple, or even quadruple-counting of resources. This happens for instance when the same project is labelled as principally targeting more than one of the Rio markers (Weikmans & Roberts, 2016).

A further critique of the reporting system is the lack of clear definitions of relevant concepts, resulting in some projects being mislabelled as climate-relevant (Weikmans *et al.*, 2017). The lack of clear definitions also concerns the concept "new and additional", as there is no agreed baseline from which to count additionality (Mitchell *et al.*, 2021; Stadelmann *et al.*, 2011). Stadelmann *et al.* (2011, p.3) suggest possible definitions of additionality including "an increase compared to present and projected future development assistance". Carty *et al.* (2020) point to a stagnation in non-climate-related ODA, suggesting that adaptation aid is displacing funding from other essential areas. Some developed countries, notably France and Japan, have reported large increases in bilateral climate aid, but their overall aid contributions have not increased (Mitchell *et al.*, 2021; CARE, 2023). Another more ambitious definition is to only count climate finance as the contributions above 0.7% of the provider's gross national income (GNI), which is the development aid level committed to by most Global North

³ The Rio Conventions refer to the three UN conventions that were adopted at the 1992 Rio Earth Summit: the UNFCCC, the Convention on Biological Diversity (CBD) and the Convention to Combat Desertification (UNCCD).

countries (Carty *et al.*, 2020; Stadelmann *et al.*, 2011). In 2018, only five countries provided ODA of 0.7% or more of their GNI (Carty *et al.*, 2020).

This section has introduced the international community's climate finance goal, of which adaptation finance is one component, including objectives and key tensions and challenges related to the goal. Understanding these aspects provides an important background for understanding the scarcity of adaptation finance, and by extension the need to examine how it is allocated.

2. Financing adaptation

Adaptation finance is a subcategory of overall climate finance and refers to financial flows from developed to developing countries “directed to [...] helping people to adapt to the impacts of climate change” (Peterson *et al.*, 2015, p. 6). Between 2010-2015, bilateral assistance contributed 69% of global adaptation finance, thereby constituting the biggest source of funding (Doshi & Garschagen, 2020). Of the remaining finance, 7% came from multilateral climate funds, such as the Green Climate Fund and the Adaptation Fund, while 24% was provided by Multilateral Development Banks (MDBs) (Doshi & Garschagen, 2020). A report by United Nations Environment Programme (UNEP) (2023) shows that the flows shifted between 2017-2021, with MDBs providing 53% of adaptation finance, bilateral sources providing 39% and multilateral climate funds providing 5%. An explanation for this shift could be the increased focus on mainstreaming of adaptation into development activities, which UNEP (2023) also highlights in their report.

Scholars make a conceptual distinction between adaptation aid and adaptation finance, with the former being a subset of the latter (Ayers & Abeyasinghe, 2013). Adaptation aid comes from international aid budgets and is channelled to developing countries as Official Development Assistance (ODA) (Ayers & Abeyasinghe, 2013). There is no official consensus on how to distinguish between adaptation and development aid due to their overlapping objectives (Donner *et al.*, 2016). ODA aims to promote economic development and welfare, while the purpose of adaptation aid is to address vulnerability to climate change, which can include e.g. reducing poverty (Ayers & Abeyasinghe, 2013; Bird & Glennie, 2011). The similar objectives of development and climate adaptation bring challenges regarding how to measure whether it is indeed “new and additional” (Ayers & Abeyasinghe, 2013). In addition to this practical element, the distinction between adaptation aid and finance also has a normative dimension. The concept of adaptation aid is criticised for implying a voluntary contribution based on solidarity; however, developing countries and climate justice scholars argue that funding for adaptation constitutes a compensation for prior injustice and as such should be considered an obligation (Persson & Remling, 2014; Adaptation Watch, 2015; Duus-Otterström, 2016; Baatz, 2018; Khan *et al.*, 2020). In this thesis, I use “adaptation aid” to refer to bilateral adaptation assistance. In

doing so, I do not neglect normative arguments regarding the obligation to provide financial resources, rather I use this term to emphasise that it comes from ODA budgets. I use “adaptation finance” to refer to the broader concept of financial resources for adaptation and to refer to non-bilateral adaptation funding, such as funding from mixed or multilateral sources.

It is not possible to provide a single estimate of the global costs of adaptation, since the sum differs according to the methods used to calculate it, the level of global warming anticipated, and the ethical choices made in the estimate (UNEP, 2016). As a result, estimates of the costs of global adaptation vary greatly. The World Bank (2010) estimated that given a temperature increase of approximately 2°C, adaptation costs in developing countries will range between USD 70 billion to USD 100 billion a year from 2010-2050. However, in their most recent Adaptation Gap Report, UNEP (2023) suggests that this is a vast underestimation. They estimate that the costs of adaptation in the Global South are more likely to range between USD 215 billion to USD 387 billion per year in the current decade and project that they will rise in the coming decades (UNEP, 2023). According to the OECD (2023), only 25% of climate finance mobilised between 2016-2021 was dedicated to adaptation, while the majority of funds went to mitigation. Furthermore, reviews of projects labelled as adaptation-relevant in the OECD database show that some projects have no adaptation objective and that donors routinely exaggerate projects’ adaptation component (Donner *et al.*, 2016; CARE, 2021). Overall, it is apparent that the funding available for adaptation falls far short of what is required to meet the needs of developing countries. In addition to the economic costs of adapting to climate change, researchers have also pointed to the non-economic losses and damages caused by climate change, such as the loss of cultural heritage and biodiversity (Serdeczny *et al.*, 2016).

Adaptation efforts mainly benefit the communities and regions in which they are implemented, as opposed to mitigation which has universal benefits (Rübbelke, 2011). Furthermore, if not designed and implemented properly, projects risk having no effect (Barnett *et al.*, 2013) or, in the worst cases, result in maladaptation (Magnan *et al.*, 2016; Schipper, 2020; Eriksen *et al.*, 2021). This concept refers to adaptation projects where the vulnerability of project beneficiaries is increased, vulnerability is shifted to other parts of the population or new problems are introduced (Schipper, 2020). Therefore, it is not sufficient to increase the amount of adaptation finance; we must also examine who receives it and how it is spent. As such, UNEP called for increased efforts to track the flow of adaptation finance and ensure that it “is used efficiently and targeted where it is most needed” (2016, p. xiii). Article 4.4 of the Convention states that “developed country Parties [...] shall assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation” (UNFCCC, 1992). But who are the most vulnerable countries and communities and are they indeed prioritised in the distribution of adaptation finance?

Vulnerability to climate change is an ambiguous concept since there are no universally agreed indicators. According to the IPCC (2022), vulnerability is a complex and context-dependent phenomenon and can differ between and within countries and communities. Being categorised as a vulnerable country leads to prioritisation in finance allocations (in theory at least) and countries therefore have overt political interests in shaping the definition (Klein, 2009; Khan *et al.*, 2020). Furthermore, Webber (2013) emphasises that vulnerability is not a latent condition, but rather an identity that is discursively and materially produced to fit a political agenda. All of this forms an important basis for the subsequent discussion of adaptation finance allocation.

International allocation to countries has been studied at quite some depth (Robertson *et al.*, 2015; Betzold & Weiler, 2017, 2018; Robinson & Dornan, 2017; Mori *et al.*, 2019; Noltze & Rauschenbach, 2019; Saunders, 2019; Weiler, 2019; Garschagen & Doshi, 2022) but subnational allocation has received less attention. Barrett (2012) highlights that if we are to reach the most vulnerable it is critical that we employ a multiscale analysis, whereby we look across global, national and local scales. The rationale behind this is that, in order to achieve climate justice, funding must be targeted to the most vulnerable countries and to the most vulnerable communities within them (Barrett, 2012). Ensuring that funding reaches the most vulnerable countries alone does not guarantee that it will benefit the most vulnerable groups, because the adaptation interests of governments and other powerful groups can differ greatly with those of marginalised people (Kates, 2000). Indeed, adaptive strategies that may satisfy national or regional adaptation goals can have high social costs for vulnerable groups and increase their vulnerability to climate change (Eriksen *et al.*, 2021; Kates, 2000). For example, the adoption of agro-technology by politically and economically powerful groups in response to droughts can introduce new risks to the rural poor through altered physical and institutional conditions (Warner & Kuzdas, 2016). Similarly, the construction of coastal protection measures such as sea walls, dikes and flood channels may simply deflect risks elsewhere rather than decrease them (Atteridge & Remling, 2018).

This section has discussed the nature of adaptation finance and how its objectives overlap with general ODA. It has furthermore examined the scarcity of adaptation finance and why it is important to track how it is allocated. Based on this, I will now turn my attention to the literature examining how adaptation finance is allocated. This includes a broader introduction to the general aid allocation literature and the theoretical underpinnings that shape it.

3. Theories on allocation

The literature specifically examining the allocation of adaptation finance is limited, but studies argue that it can be explained largely by similar factors as those described in the general aid literature

(Barrett, 2014; Betzold & Weiler, 2018). In this section, I introduce the key theoretical paradigms underpinning research on aid allocation to give a broader conceptual context. Building on this, I explain the dominant allocation models used to explain aid and adaptation finance allocation at the international and subnational levels respectively.

3.1 Theoretical underpinnings

International aid has long been examined in the context of the idealist and realist paradigms of international relations (McKinlay & Little, 1977, 1978; van Dam & van Dis, 2014; Gulrajani & Calleja, 2019). In the idealist paradigm, aid is motivated by an altruistic humanitarian objective to improve the conditions in recipient states (Belle *et al.*, 2004; van Dam & van Dis, 2014; Gulrajani & Calleja, 2019). As such, idealist scholars argue that the influence of national interests on allocation should be minimised (Belle *et al.*, 2004). In line with these values, idealist critiques of aid tend to centre on how aid is delivered, particularly whether it indeed benefits those with the greatest need or rather local elites and other powerful groups (Belle *et al.*, 2004). This includes attention to the bureaucracies and institutional mechanisms through which aid is delivered, and how they may fail to prioritise recipients with the greatest need (Tendler, 1975; Belle *et al.*, 2004).

At the other end of the spectrum, the realist paradigm conceptualises foreign policy, including foreign aid, as a strategic instrument for donor countries to maximise their self-interests (Liska, 1960; Belle *et al.*, 2004; van Dam & van Dis, 2014; Gulrajani & Calleja, 2019). According to this view, donors use aid to protect or advance their key interests abroad, namely related to security, trade and investments (McKinlay & Little, 1978; Belle *et al.*, 2004). Some realist scholars recognise that altruistic goals may play a role in aid allocation, but stress that they are subordinate to other motivations (Knorr, 1973; Gilpin & Gilpin, 1987) or that the interests of donor countries are closely tied to the economic well-being of recipient countries (McKinlay & Little, 1977). Realist critiques of aid have focused on its effectiveness, particularly in nondemocratic and crisis-prone countries, reflecting an underlying logic that aid must provide some kind of return on investment (Wolfson, 1979; Eberstadt, 1988; Belle *et al.*, 2004). Based on the realist assumptions, aid would be expected to primarily go to recipient countries with greater strategic importance for the donor (Belle *et al.*, 2004).

The idealist and realist theories on aid are often presented as polar opposite rationales but in reality donors may be guided by several different motivations simultaneously (McKinlay, 1978; Gulrajani & Calleja, 2019). Furthermore, aid motivations differ across different donors and over time (eg. Berthélemy, 2006; Hoeffler & Outram, 2011; Maizels & Nissanke, 1984). Nevertheless, the idealist and realist theories on aid are strongly reflected in the models used to examine aid allocation, as discussed in the following section.

3.2 Aid allocation models

The idealist and realist theories on aid allocation have influenced the conceptual framework for how most aid studies assess allocation at the international level, and their logics are also echoed in allocation models at the subnational level. At the international level, the literature on aid allocation identifies three main allocation models; recipient need, donor interest and recipient merit (Alesina & Dollar, 2000; McKinlay & Little, 1977) (see overview in table 1.1). The recipient need model, reflecting the idealist paradigm, suggests that aid is driven by a charitable motive (Betzold & Weiler, 2018). It is allocated in response to the recipient's development needs, which can be measured through a range of variables such as income per capita, life expectancy or infant mortality (Hoeffler & Outram, 2011). In the context of climate adaptation, recipient need is conceptualised as how vulnerable a country is to climate change (Betzold & Weiler, 2017; Weiler, 2019). Of course, a comparison of the recipient need model across donors assumes that donors share the same understanding of what constitutes recipient need, and as previously discussed there is no agreed definition of vulnerability. As table 1.1 shows, studies operationalise different indicators of vulnerability, including, but not limited to, various global vulnerability indices (Betzold & Weiler 2017; Noltze & Rauschenbach 2019; Saunders 2019) and gross domestic product (GDP) per capita (Robinson & Dornan, 2017; Weiler *et al.*, 2018).

Some empirical studies suggest that allocation is indeed correlated to vulnerability (Barrett, 2014; Robinson & Dornan, 2017; Weiler *et al.*, 2018; Mori *et al.*, 2019; Noltze & Rauschenbach, 2019). Other studies indicate a concave relationship with vulnerability and allocation of adaptation finance, where the most vulnerable receive less (Betzold & Weiler, 2017; Saunders, 2019). This pattern is possibly due to the role of absorptive capacity, as the most vulnerable are not able to put the resources into productive use (Betzold & Weiler, 2018; Bird & Glennie, 2011). Herding may also play a role, whereby donors concentrate around the same countries (Donner *et al.*, 2016; Noltze & Rauschenbach, 2019). This may explain why some recipient countries with seemingly similar level of vulnerability (according to certain indicators) receive different amounts of adaptation finance (Donner *et al.*, 2016). Finally, other studies indicate that vulnerability has a weak or non-existent correlation to allocation of adaptation finance (Stadelmann *et al.*, 2012; Robertsen *et al.*, 2015; Doshi & Garschagen, 2020).

There are different potential explanations for the divergent findings on the role of vulnerability. Firstly, it may be partly due to the use of different vulnerability indicators and country samples. The issue is particularly exposed in Robinson and Dornan (2017), who apply the Climate Risk Index (CRI) and ND-GAIN to the same sample of SIDS and find different results regarding the role of vulnerability in allocation. Secondly, studies tend to focus on recipient characteristics and rely on aggregate data that obscures complexities in the aid system. However, studies on ODA suggest that some donors, particularly the Nordic countries, are more driven by altruistic motives than others (Gates & Hoeffler,

2004; Berthélemy, 2006). Additionally, Peterson & Skovgaard (2019) argue that the role of vulnerability in allocating bilateral adaptation finance is strongly influenced by which ministry is involved in making the allocation decisions. When the Ministry of Development is involved, funding is more likely to go to lower-income recipient countries, while involvement by the Ministry of Environment tends to favour political allies in the UNFCCC (Peterson & Skovgaard, 2019). Overall, this highlights the difficulty of assessing the role of vulnerability in allocation.

The second allocation model, donor interest, reflects the realist paradigm by postulating that donor countries use aid as a tool to maximise commercial, political or security interests abroad (McKinlay & Little, 1977). Studies suggest that bilateral adaptation finance is influenced by trade (Saunders, 2019) and political priorities and diplomatic relations (Doshi & Garschagen, 2020). Donor interest can also take the form of proximity between the donor and recipient (Clist, 2011). This can be measured in either physical distance, colonial history, or shared language or religion between donor and recipient (Clist, 2011). Indeed, Saunders (2019) finds that donors are more likely to choose recipients that are physically closer to them. Barrett (2022) argues that studies on adaptation aid have not adequately incorporated donor interest as a dyadic relationship in their models. Correctly controlling for this relationship may remove any statistical correlation between vulnerability and allocation (Barrett, 2022).

The third model, recipient merit, emerged in the allocation literature in the early 2000s (Alesina & Dollar, 2000; Dollar & Levin, 2006; Betzold & Weiler, 2018) as an addition to the recipient need-donor interest distinction. It proposes that donors favour recipient countries with “good governance”, such as the existence of sound economic policies and democratic institutions (Betzold & Weiler, 2018). While the recipient merit model does not directly mirror the idealist or realist paradigms, it does echo some of the realist critiques concerning aid effectiveness. Studies offer different explanations for this allocation behaviour, such as donors attaching an intrinsic value to good governance (Alesina & Dollar, 2000; Lewis, 2003) or because democratic countries are more transparent and likely to uphold human rights (Demirel-Pegg & Moskowitz, 2009). It can also reflect a concern with aid effectiveness, as evidence suggests that sound economic policies and democratic institutions are necessary conditions for aid to create growth (Burnside & Dollar, 2000, 2004; United Nations, 2002). An emphasis on effectiveness can create path dependency, whereby past aid recipients are more likely to receive aid in the future because existing networks lower transaction costs and thereby increase aid efficiency (Francken *et al.*, 2009; Anderson, 2012; Betzold & Weiler, 2018). Robertsen *et al.* (2015) point out that this is potentially problematic for the aim of prioritising the most vulnerable countries, since it means that existing ODA priorities may guide the allocation of adaptation aid rather than the vulnerability of recipient countries.

The models described above are to some extent echoed at the subnational level. Drawing on studies on adaptation finance and general resource allocation, Barrett (2014) identifies three subnational allocation models: climate vulnerability, donor utility and government interest. Climate vulnerability refers to the need of subnational groups or locations. Similar to international allocation studies, subnational allocation studies also utilise different vulnerability indicators including, but not limited to, poverty (Francken *et al.*, 2009; Dipendra, 2020) and physical exposure (Barrett, 2014; Cisneros & Ilbay-Yupa, 2023) (see table 1.1). Cisneros & Ilbay-Yupa (2023) find that while current physical exposure influences allocation of adaptation finance, future projected physical exposure does not, highlighting the complexity of vulnerability as a determinant as it interacts with other factors and considerations.

Donor utility (or path dependency) means that aid is more likely to target areas that are more accessible or where donors have invested in institutional capacity such as personnel, offices, infrastructure and institutional reputation (Clay *et al.*, 1999; Francken *et al.*, 2009; Barrett, 2014). This echoes the emphasis on aid effectiveness from the recipient merit model. The preference for areas where donors are already active can result in certain locations becoming hotspots of activity while more remote locations are overlooked (Incerti & Barnett, 2024), mirroring the ‘herding’ pattern also found in international allocation studies. Path dependency can also occur through a reliance on pre-existing aid practices. Clay *et al.* (1999) show that subnational food aid in Ethiopia disproportionately favours women and the elderly irrespective of their food needs, due to a pre-existing focus on these groups. This suggests that pre-existing beneficiary selection criteria may override actual recipient need in allocation (Clay *et al.*, 1999).

Finally, government interest measures whether allocation favours the political or economic interests of the political elite (Berlin *et al.*, 2023; Francken *et al.*, 2009; Hodler & Raschky, 2014; Jablonski, 2014; Posner, 2005; Sharp, 1997). This can for instance take the form of electioneering, whereby political candidates try to win votes (Sharp, 1997; Alcañiz & Giraudy, 2023), or political patronage, when decision-makers favour allocation to their political supporters or ethnic region (Francken *et al.*, 2009; Dipendra, 2020).

Similar to vulnerability, donor utility and government interest can also be measured through a range of different indicators. Moreover, these indicators are also subject to interpretation. This is reflected in the study by Barrett (2014), which finds a significant correlation between adaptation finance to districts and the number of households owning a television. Barrett (2014) recognises that this can reflect both donor utility and government interest. Television ownership is an indicator of income, which is tied to absorptive capacity (donor utility), but it can also be an indicator of political engagement, as it allows people to monitor political action (donor interest) (Barrett, 2014). Thus, while

these aggregate indicators provide important insights into allocation, they cannot conclusively explain it on their own.

Table 1.1: Overview of allocation determinants found to influence adaptation finance

International	Subnational
Recipient need <ul style="list-style-type: none"> • Notre Dame Global Adaptation Index (ND-GAIN) (Mori <i>et al.</i>, 2019; Noltze & Rauschenbach, 2019; Saunders, 2019) • Germanwatch Climate Risk Index (Noltze & Rauschenbach, 2019) • GDP per capita (Robinson & Dornan, 2017; Weiler <i>et al.</i>, 2018; Saunders, 2019) • Physical exposure (Weiler <i>et al.</i>, 2018) • Environmental Vulnerability Index - Climate Change Subindex (Betzold & Weiler, 2017) 	Recipient need <ul style="list-style-type: none"> • Poverty (Francken <i>et al.</i>, 2009; Dipendra, 2020) • Asset losses (Morris & Wodon, 2003) • Physical exposure (Francken <i>et al.</i>, 2009; Barrett, 2014; Cisneros & Ilbay-Yupa, 2023) • Socioeconomic vulnerability (Alcañiz & Giraudy, 2023; Cisneros & Ilbay-Yupa, 2023)
Recipient merit <ul style="list-style-type: none"> • Existing aid relationship (Robertsen <i>et al.</i>, 2015) • Democracy (Robertsen <i>et al.</i>, 2015) • World Governance Indicators (Robinson & Dornan, 2017; Weiler <i>et al.</i>, 2018) • Economic readiness (Saunders, 2019) • Cost-effectiveness (Stadelmann <i>et al.</i>, 2012) • ND-GAIN adaptive capacity sub-index (Weiler <i>et al.</i>, 2018) 	Donor utility <ul style="list-style-type: none"> • Cost-effectiveness (Barrett, 2014) • Institutional capacity and accessibility (Clay <i>et al.</i>, 1999; Francken <i>et al.</i>, 2009; Barrett, 2014; Dipendra, 2020; Incerti & Barnett, 2024) • Proportion of households owning a television* (Barrett, 2014) • Agricultural engagement (Barrett, 2014) • Pre-existing aid practices (Clay <i>et al.</i>, 1999; Incerti & Barnett, 2024) • Low corruption (Dipendra, 2020)
Donor interest <ul style="list-style-type: none"> • Physical distance (Betzold, 2015; Saunders, 2019) • Trade relations (Betzold, 2015; Weiler <i>et al.</i>, 2018; Saunders, 2019) • Colonial ties (Weiler <i>et al.</i>, 2018; Saunders, 2019) • United Nations voting alignment (Betzold, 2015) 	Government interest <ul style="list-style-type: none"> • Proportion of households owning a television* or radio (Francken <i>et al.</i>, 2009; Barrett, 2014) • Political patronage (Francken <i>et al.</i>, 2009; Dipendra, 2020) • Electioneering (Sharp, 1997; Alcañiz & Giraudy, 2023)

* Television ownership can reflect both donor utility and/or government interest (Barrett, 2014).

4. Situating my research

As discussed above, studies at both the international and subnational levels find conflicting results regarding which allocation model is a better predictor of adaptation finance. There are different potential explanations for these conflicting findings. Firstly, the divergence may result from the use of different country samples and indicators for vulnerability. The latter stems from a lack of agreed indicators for vulnerability, due to its complex and context-dependent nature (IPCC, 2022) and political interests in shaping the definition (Klein, 2009; Khan *et al.*, 2020). Common for most allocation studies at both the international and subnational levels is that they tend to choose vulnerability indicators based on the vulnerability literature and do not consider how decision-makers on adaptation finance view it. However, as Clay *et al.* (1999) point out, donors' pre-existing beneficiary selection criteria, based on ideas of which recipient characteristics may contribute to vulnerability, could be more influential than actual recipient need. Thus, in that particular case at least, comparing allocation to actual vulnerability could give the incorrect impression that donors are not motivated by vulnerability. Dreher *et al.* (2024) claim that studies on aid effectiveness often choose indicators that do not match what donors actually aim at. They add that in order to properly assess effectiveness, it is necessary to first understand donors' aims better. It seems logical to apply the same approach when assessing the role of vulnerability in allocation decisions. In other words, to assess whether donors prioritise vulnerability, we should first examine their aims, including how they understand and approach vulnerability.

Secondly, studies tend to focus on recipient characteristics and rely on aggregate data that obscures complexities within the aid system. Some studies indicate that there are differences between donors in how they allocate their aid (Gates & Hoeffler, 2004; Berthélemy, 2006; Rahman & Giessen, 2017). Echoing this, Dietrich (2021) states that understanding aid allocation requires attention to the institutional environment on the donor side. Indeed, allocation decisions may be shaped by the decision-making processes and who are involved in them. Peterson & Skovgaard (2019) show that allocation of adaptation finance is influenced by which donor ministry is involved in making the allocation decisions, due to their different objectives. Furthermore, Persson & Remling (2014) point out that proposals to the Adaptation Fund are accepted on a rolling basis, and are therefore only ranked against those submitted to the same meeting. This means that countries are not ranked implicitly or explicitly against each other, thus making it difficult to identify specific allocation criteria across time (Persson & Remling, 2014). Mirroring the emphasis on donors' institutional environment, studies at the subnational level show that adaptation planning is shaped by complex political settings, including how state and social actors are organised, their interests and priorities (Biesbroek *et al.*, 2018; Vij *et al.*, 2019). To understand whether adaptation finance providers indeed prioritise the most

vulnerable in their allocation decisions we must therefore take a step back and examine how the allocation decisions are made.

To understand the complexities of the decision-making process(es), this thesis adopts a case study approach. Case studies are an in-depth method of inquiry used to study phenomena within their real contexts (Yin, 2003). They rely on multiple sources of evidence and are designed to capture the complexity of a single case through a holistic approach that allows the researcher to study many different aspects and examine them in relation to each other (Gummesson, 1988; Ebneyamini & Moghadam, 2018). Through the use of multiple sources of data, case studies are intended to reveal the viewpoint of the study participants (Tellis, 1997). Thus, a case study approach enables me to examine the decision-making processes for allocation of adaptation finance while providing me with an in-depth understanding of different actors' perspectives, which is central to my research objectives.

5. Thesis overview

Inspired by Barrett's (2012) multiscalar approach, this thesis explores adaptation finance allocation through three case studies at the international and subnational levels. The case studies focus on bilateral adaptation aid from Germany, multilateral adaptation finance from the GCF and subnational allocation of adaptation finance in Seychelles. In addition to looking across the international and subnational levels, the three case studies also represent different perspectives on adaptation finance: bilateral donor (Germany), multilateral fund (GCF) and recipient (Seychelles). The thesis is guided by the overall question: *What procedures and implicit and explicit criteria guide the allocation of adaptation aid?* The overarching story emerging across the three papers is that allocation of adaptation finance is a complex process, shaped by different priorities and bureaucratic processes. Moreover, the way that decision-makers perceive and approach vulnerability is not necessarily compatible with how vulnerability is often measured in allocation studies.

5.1 The institutional context in German aid allocation

The first paper of my thesis, "Germany's allocation of bilateral adaptation aid: Understanding the role of institutional context in shaping allocation decision" (Gurresø, 2024), examines bilateral adaptation aid from the German Federal Ministry of Economic Cooperation and Development (BMZ). The paper was published in *Earth System Governance* in May 2024.

Germany is one of the biggest providers of bilateral adaptation aid to the Global South, with most of it delivered through BMZ's general ODA budget. Few studies have attempted to explain the allocation of German adaptation aid and with differing results (Betzold, 2015; Noltze & Rauschenbach, 2019; Doshi & Garschagen, 2020). In this paper, I argue that aid criteria are always embedded within an institutional

context and explore how the latter may inform a more accurate assessment of allocation determinants. I propose three elements of the institutional context: institutional identity, institutional beliefs and allocation stages. Through quantitative aid data, document analysis and interviews with people involved in various stages of the decision-making process on German adaptation aid, I trace how the three elements of the institutional context shape allocation.

The institutional identity consists of the aims, values and traditions of the donor, reflecting its ideological foundation (Dietrich, 2021). BMZ pursues country-driven development, meaning that projects are decided in collaboration between BMZ and the partner country (the recipient). The allocation of adaptation aid is therefore a complex process, shaped by different interests and priorities on both sides. Furthermore, a significant share of adaptation aid is allocated through mainstreaming adaptation into development projects. As a result, climate vulnerability is less likely to be a determinant. The second element, institutional beliefs, refer to the knowledge and ideas informing how the donor understands vulnerability. This is inspired by Kuhn's (1970) argument that shifting scientific paradigms dictate the assumptions, methods and solutions for a community of practitioners. BMZ acknowledges that vulnerability is complex and context-specific, and as a result they do not consider it neither measurable nor comparable across different contexts. Instead they take a bottom-up approach to vulnerability centred around local impacts and impact chains in particular locations or sectors, referred to as a system-level approach. This system-level approach is incompatible with the logic of the recipient need model, which measures vulnerability as an aggregate value at the national level. The third element, allocation stages, refers to the fact that there are different stages in the allocation process where vulnerability considerations may come into play (Petersen & Skovgaard, 2019). BMZ has different aid budgets, in which either the project theme or the aid recipient is chosen first. Having separate stages for selection (country) and allocation (project) means that certain criteria are considered before others. Due to BMZ's system-level approach to vulnerability, recipient merit might determine which country is more likely to receive adaptation aid, but vulnerability still shapes how it is spent subnationally. Overall, the paper highlights the complex ways in which vulnerability may shape allocation of adaptation aid, which may not reflect in quantitative, aggregate assessments.

5.2 Approving adaptation projects in GCF

The second paper, "Delays in funding approval and gatekeeping of climate funds: An analysis of adaptation projects in the GCF", is co-authored with Laura Kuhl and Feisal Rahman and examines the approval process for adaptation funds at the GCF. The version included in this thesis is a working draft. We intend to conduct further analysis and submit the revised paper to *Ambio* within the coming months.

The GCF is the world's largest dedicated source of climate finance and a key financial mechanism for the provision of the USD 100 billion. GCF is committed to a 50/50% split for mitigation/adaptation in the allocation of its funds and aims to spend at least half of its adaptation funds in the most vulnerable countries, which it defines as SIDS, Least Developed Countries (LDCs) and African states. The portfolio from 2015-2022 shows that GCF allocated 51/49% of its funds to mitigation/adaptation and 54% of its adaptation funds to the most vulnerable countries, thus (nearly) meeting its allocation targets (GCF, 2023c). However, the approval process at GCF is characterised by long delays. Our analysis shows that projects spend a median of 480 days (approximately 1 year 4 months) from submission until they are approved, with one project taking 1727 days (4 years 7 months). This does not include the time it takes from initial idea to the first submission, or from the final approval to disbursement of funds. Delays can have consequences for the outcomes of projects as their underlying assumptions may change over time, resulting in e.g. higher costs or reduced effectiveness. My co-authors and I explore these delays, with attention to disparities and causes. To understand whether the delays are justified, we analyse the causes of the delays based on Leventhal's (1980) rules for procedural justice: consistency, lack of bias, accuracy, representativeness and correctability.

The paper uses mixed methods: we conduct quantitative analysis on the time that projects spend from submission to approval, content analysis of feedback sheets provided by GCF on proposals and interviews with applicants and GCF staff. The results from the pipeline analysis show that adaptation proposals experience longer delays than mitigation and cross-cutting proposals. Furthermore, proposals from SIDS and LDCs experience longer delays than proposals from other countries. The content analysis and interviews suggest that there are mixed explanations for the delays, of which some may reflect procedural justice issues in the approval process. The latter particularly concerns issues around inconsistent feedback from GCF to applicants and a lack of correctability mechanisms in the process. However, there are more issues surrounding consistency that are not captured by the theoretical framework. Beyond inconsistent feedback, applicants also receive a significant volume of repetitive feedback, which they perceive as an unfair burden, particularly in the light of their limited human and technical capacities. Other challenges include tensions around GCF's standards for accuracy, which may undermine representativeness of applicants' concerns and outlook. The latter raises questions regarding how to ensure that GCF funds good projects while also ensuring a smooth approval process. The paper concludes with theoretical and policy recommendations. Regarding theoretical contributions, it suggests adding an efficiency dimension to Leventhal's procedural justice framework to address the shortcoming of the consistency rule. It also points to tensions between the rules on accuracy and representativeness. In terms of policy recommendations, it proposes that more regional presence of the GCF could contribute to a faster approval process by bridging the knowledge gap between GCF evaluators and applicants. Moreover, the paper highlights that to understand

whether the most vulnerable are prioritised in adaptation finance, we have to look beyond the distribution of funds and consider other aspects of the allocation process too.

5.3 Managing adaptation finance in Seychelles

The third paper, “Managing adaptation finance in SIDS: A study of subnational allocation criteria and procedures in Seychelles”, examines how adaptation finance is allocated at the subnational level in Seychelles. The paper was accepted by *Small States & Territories* for their November 2024 special issue ‘Public Administration and Crisis Governance in Small States’. Seychelles is a SIDS in the Indian Ocean. As a SIDS, they are regarded as highly vulnerable to climate change and among the priority recipients for international adaptation finance. As previously discussed, vulnerability is not distributed evenly at the subnational level, and it can vary between and within communities. Additionally, the literature on subnational allocation tends to draw on a simplified and polarised narrative on the role of recipient governments as unitary actors, but in reality they consist of a diverse web of actors. The paper begins by mapping the landscape of adaptation actors in Seychelles. Through document analysis and interviews with decision-makers it then explores how those actors perceive vulnerability and how they consider it in allocation.

The paper identifies a fragmented landscape of adaptation actors in Seychelles, characterised by inconsistent perceptions between and within public entities of who are those particularly vulnerable. However, actors seem to agree on the need to prioritise projects protecting the largest number of people and the economy, which they perceive as a way to protect the most vulnerable. Whether this is plausible must be evaluated in the context of Seychelles’ fragile and undiversified economy. Finally, public entities in Seychelles have uneven decision-making power and capacity constraints, resulting in certain sectors being prioritised over others for adaptation finance. Overall, the paper makes two contributions to the literature on subnational allocation. Firstly, it highlights that perceptions of vulnerability must be understood and evaluated within the national context. This has implications for how studies assess climate vulnerability as a determinant of subnational finance, as this is often evaluated through more direct financing of specific groups or locations. Secondly, it suggests that we need a more nuanced picture of the role of recipient governments in subnational allocation of adaptation finance that accounts for differing objectives and capacity of different actors to shape allocation.

6. Additional work

This thesis is part of a wider research agenda on international climate governance. Understanding adaptation finance extends beyond the criteria and procedures shaping flows; it also requires that we

examine who influence the international agreements governing the provision of climate finance. These agreements are the product of multilateral negotiations in the UNFCCC. Beyond the papers included in this thesis, I have contributed to research on how SIDS participate in and influence the wider climate negotiations in the UNFCCC.

In the blog article “Power of the Powerless” (Gurresø, 2022)⁴, published by the *Observatoire Multilatéralisme & Organisations Internationales*, I assess how SIDS, despite their limited resources and capacity, have been able to achieve demands in the multilateral negotiations on Loss and Damage against the interest of much larger and wealthier states. Broadly speaking, Loss and Damage refers to harms caused by climate change that cannot be avoided through mitigation and adaptation measures (Kreienkamp & Vanhala, 2017). My blog article is based on interviews and participant observation during COP25 in 2019. In this short research piece I show that SIDS achieve negotiating power by drawing on the five types of leadership strategies proposed by Corneloup & Mol (2014): structural (possession and effective use of material resources), entrepreneurial (drafting of mutually acceptable deals), intellectual (production of intellectual capital and/or systems of thought), environmental (ambitious domestic policies and practices to strengthen legitimacy) and moral leadership (storyline centring on high vulnerability to climate change despite negligible emission contributions). SIDS draw on all five leadership strategies to influence the Loss and Damage negotiations. While they do not individually possess significant structural power, they have managed to achieve structural leadership through effective coalition building, such as in the Alliance of Small Island States (AOSIS), where they collaborate and share resources.

While SIDS’ successes in the climate negotiations are partly contingent on their effective collaboration as a group, it is also important to acknowledge their differences and inequalities. SIDS differ in terms of economic and political circumstances (Julca & Paddison, 2010), influencing their abilities to participate in the climate negotiations and thereby to influence their outcome. This matters because, despite their united front in the climate negotiations, their individual priorities can differ (Betzold *et al.*, 2012). In “Beyond AOSIS: Small Island States’ Presence and Participation at COP27” (Klöck *et al.*, 2024)⁵, I collaborate with several other authors to explore how SIDS participate in the UNFCCC negotiations. Through collaborative event ethnography, we trace the presence and participation of each individual SIDS at COP27 in 2022. Our analysis confirms differences among individual SIDS, with some being much more active in both formal negotiations and side events than others. This is likely the result of differences in technical and financial capacities of delegations as well as the personal

⁴ The blog article is available in Annex A.

⁵ The research article is available in Annex B.

commitment and engagement of individual negotiators. The paper was published in *Climate and Development* in January 2024.

7. Concluding remarks and outlook

Global North Parties to the UNFCCC have committed to mobilise finance to support adaptation activities in the Global South, with priority to the “particularly vulnerable” countries. The mobilised adaptation finance is insufficient to meet the needs of Global South countries, and it is projected that needs will increase faster than the volume of pledged funding. Given this scarcity, it is important that available funds reach those who need it the most. Studies have attempted to assess whether the most vulnerable are indeed prioritised in the allocation of adaptation finance at both the international and subnational levels, but with conflicting results. The conflicting results may be explained partly by the studies’ use of different vulnerability indicators and country samples. Furthermore, the studies tend to focus on recipient characteristics, neglecting factors on the donor side, and rely on aggregate quantitative data that obscures the complexities of adaptation finance allocation. Based on these gaps in the literature, this thesis explores the allocation of adaptation finance by examining the priorities and procedures of decision-makers. It does so through three case studies of adaptation finance providers at the international and subnational levels: bilateral adaptation aid from Germany, multilateral adaptation finance from GCF and subnational adaptation finance in Seychelles.

The thesis offers a threefold contribution to the scholarship on adaptation finance: theoretical, methodological and empirical. On a theoretical level, it applies insights from the literature on allocation determinants and examines how these play out in practice. The thesis builds on the idealist assumption that adaptation finance should be prioritised for the most vulnerable, which is also reflected in international political agreements. Idealist critiques of aid tend to focus on how aid is delivered: particularly whether aid reaches those with the greatest need and how the institutional mechanisms surrounding aid delivery may contribute to, or undermine, this aim (Belle *et al.*, 2004). My thesis contributes to an understanding of how donors’ decision-making processes shape allocation of adaptation finance and its implications for prioritising the most vulnerable. In chapter two (BMZ) and three (GCF), I highlight how the bureaucratic processes that facilitate allocation of international adaptation finance intervene with the broader political aims of prioritising the most vulnerable. This is an important step towards understanding the role of vulnerability in adaptation finance allocation.

On a methodological level, this thesis contributes with a qualitative case study approach to the allocation literature, which has so far been dominated by quantitative studies based on aggregate data. The qualitative case study approach is necessary to explore the intricacies of the decision-making process, which are otherwise concealed in aggregate data sets. As such, my methodology is also linked

to my empirical contributions. On an empirical level, my thesis goes beyond the focus on recipients' characteristics by exploring decision-makers' perceptions of vulnerability and examining how the priorities and procedures of adaptation finance providers influence allocation. By focusing on three individual cases, I was able to explore the respective decision-making processes for adaptation finance in-depth compared to a study with a large sample. Particularly in chapter two (BMZ) and four (Seychelles), I show that the ways in which decision-makers on adaptation finance approach vulnerability may be different from how it is often approached and measured in allocation studies. This highlights the importance of understanding how adaptation finance providers understand and approach vulnerability in order to assess the role that it plays in allocation decisions.

In addition to the contributions discussed above, this thesis furthermore contributes to on-going policy debates on adaptation finance. This comes at a crucial time as the Parties to the UNFCCC are expected to agree on a new collective climate finance goal by the end of 2024 to replace the current USD 100 billion goal. In addition to negotiating an overall quantitative target, Parties are also discussing different options for including various quantitative and qualitative sub goals. These sub goals particularly concern the balance between adaptation and mitigation in overall climate finance and how to ensure access to adaptation finance for the most vulnerable countries (UNFCCC, 2023). My thesis brings up some relevant issues in this respect. Firstly, as previously discussed, I show that bureaucratic processes play an important role in shaping how international adaptation finance is allocated to countries. Chapter three (GCF) furthermore highlights that prioritising the particularly vulnerable in allocation goes beyond a distributional dimension; providers of adaptation finance must also ensure that allocation procedures do not cause unnecessary delays. These issues should be considered in the design of the new climate finance goal in order to succeed with the commitment to prioritise the most vulnerable. Moreover, my thesis highlights the challenges and complexities of tracking progress on a target (prioritising the particularly vulnerable) that is so political and context-dependent in nature.

The research presented in this thesis raises some questions that could be explored in further research. Firstly, while an in-depth case study design is useful for understanding the complexities of the allocation process, it is difficult to generalise the findings across different contexts. To address this, future studies could reproduce these case studies designs on other adaptation finance providers. Specifically, examining the role of institutional context across other providers of bilateral adaptation aid could contribute to further refining this theoretical framework, for instance by assessing how the institutional context differs and how that affects allocation. Future studies could also assess delays in project approval across other multilateral and bilateral providers of adaptation finance to test if there are differences. Furthermore, reproducing the subnational case study on different SIDS could shed light on the differences between SIDS or identify commonalities in adaptation spending despite their

differences. At a broader level, the thesis points to tensions between how providers of adaptation finance conceptualise vulnerability and how it is approached in the allocation literature. Future research on adaptation finance allocation could shed light on how other, particularly bilateral, providers perceive vulnerability in order to better assess the extent to which vulnerability drives allocation.

Germany's allocation of bilateral adaptation aid: Understanding the role of institutional context in shaping allocation decisions

Clara B. Gurreød

Allocation of adaptation aid to the countries most vulnerable to the adverse effects of climate change is a topic that has received increasing attention in global climate governance in recent years. Studies have attempted to explain the role of vulnerability as a determinant of adaptation aid using largely quantitative methods and focusing on recipient characteristics with varying results. I argue that we cannot assess the role of vulnerability in allocation decisions without paying attention to the decision-making process itself. This article examines how the allocation of bilateral adaptation aid to developing countries is shaped by donors' institutional context, consisting of the institutional identity, institutional beliefs and allocation stages. Through a case study of the allocation process of the German Federal Ministry for Economic Cooperation and Development, I show that these three elements of the institutional context govern how vulnerability is understood and considered in the allocation of adaptation aid.

1. Introduction

Developed country Parties to the United Nations Framework Convention on Climate Change (UNFCCC) have committed to mobilise financial assistance to address the climate adaptation needs of developing countries. The Paris Agreement states that this financial assistance should prioritise countries that are “particularly vulnerable to the adverse effects of climate change” (UNFCCC, 2015, Art.9/Para.4). However, vulnerability to climate change is a contested concept. The latest report by the Intergovernmental Panel on Climate Change (IPCC) (IPCC, 2022) emphasises that vulnerability is context-specific and encompasses sensitivity and adaptive capacity, but without suggesting more specific indicators. The lack of agreed indicators to measure vulnerability raises questions regarding whether and how it influences allocation decisions. To understand this, we need to examine how donors understand and operationalise the concept of vulnerability.

Studies have tried to explain the allocation of bilateral adaptation aid according to three main models. These are recipient need (vulnerability to climate change), recipient merit (existence of “good” policies and institutions) and donor interests (economic and political interests). The studies find conflicting results regarding which model is a stronger determinant of bilateral adaptation aid (eg. Betzold & Weiler, 2018; Noltze & Rauschenbach, 2019; Robertsen et al., 2015; Robinson & Dornan, 2017; Saunders, 2019; Weiler, 2019). The dispute arises partly from the lack of agreed vulnerability indicators and the use of different country samples. Studies tend to focus on recipient characteristics to explain allocation patterns, while neglecting the donor side. Yet, the latter plays an important role in shaping allocation decisions (Peterson & Skovgaard, 2019). Moreover, existing studies are mostly quantitative and rely on aggregate data that obscures complexities within the aid system.

Donor institutions are key for understanding aid delivery (Dietrich, 2021) but the institutional context that governs vulnerability considerations in adaptation aid allocation has not received much attention. This paper argues that to understand the role of vulnerability in allocation decisions we must assess how donors understand and operationalise vulnerability. To this end, the paper suggests a model of the institutional context consisting of three elements: institutional identity, institutional beliefs and allocation stages. Institutional beliefs inform how vulnerability is conceptualised, institutional identity sets out the overall aims and values, and allocation stages refer to which point during the allocation process vulnerability considerations are introduced. Exploring how each of these elements shape allocation requires the use of in-depth qualitative methods that can shed light on the intricacies of the allocation process.

This paper contributes to the debate on the determinants of bilateral adaptation-related Official Development Assistance (ODA) (henceforth referred to as adaptation aid) by highlighting the importance of the institutional context. I do so through an in-depth case study of Germany, one of the largest providers of bilateral adaptation aid (Noltze & Rauschenbach, 2019). More specifically, I focus on the Federal Ministry of Economic Cooperation and Development (BMZ), which allocates the majority of German adaptation aid (Noltze & Rauschenbach, 2019). My research is guided by the question: *How does the BMZ’s institutional context shape its allocation of bilateral adaptation finance?* To answer this question, I rely on content analysis of aid guidelines and reports and interviews with experts and decision-makers. My analysis combines inductive and deductive approaches to develop an understanding of the three elements of the institutional context and how they influence allocation.

The remainder of the paper is organised as follows: **section 2** discusses the literature on bilateral ODA and adaptation aid and sets out the conceptual framework for my study. **Section 3** explains my case selection. **Section 4** describes my data collection and analysis methods and reflects on limitations. **Section 5** presents my results, starting with a description of the distribution of BMZ’s adaptation aid.

Subsequently, I show how BMZ's institutional identity, institutional beliefs and allocation stages may explain the distribution. I conclude in **section 6** by summarising my findings and reflecting on the wider implications of my research. Based on my findings, I argue that we need to go beyond aggregate data to understand the role of vulnerability in adaptation aid allocation.

2. Literature review

To explore how the institutional context shapes allocation, I begin with a review of the existing literature on adaptation aid. Almost all public bilateral adaptation aid is delivered through existing ODA channels (Peterson & Skovgaard, 2019). This is partly due to the overlapping objectives between climate change and development (OECD, 2006; Gupta, 2014; Michaelowa and Namhata, 2022). For this reason, the allocation of bilateral adaptation aid can be largely explained by the same models as those described in the general development aid literature (Betzold & Weiler, 2018). These factors consist primarily of recipient need, donor interest and recipient merit (Dudley & Montmarquette, 1976; Hoeffler & Outram, 2011; McKinlay & Little, 1977). Furthermore, population size, network effects and recipient interest are also found to affect allocation (Alesina & Dollar, 2000; Barrett, 2014; Clist, 2011; Doshi & Garschagen, 2020). The allocation factors are not mutually exclusive, as donors may be guided by several motives simultaneously. In the following part I explain each factor in more detail, followed by a discussion on the shortcomings of the literature. This informs the rationale for my study and my conceptual framework.

2.1 Allocation criteria for adaptation aid

The recipient need model posits that aid is driven by a charitable motive and allocated in response to recipients' development needs (Betzold & Weiler, 2018). This is typically measured by income level (poverty) (Clist, 2011; Collier & Dollar, 2002), although a range of other social and economic indicators may be used (Hoeffler & Outram, 2011; McKinlay & Little, 1977; McKinlay, 1978). If donors follow the recipient need model, we should see that poorer countries receive more aid per capita (Betzold & Weiler, 2018). In the context of adaptation aid, recipient need is understood as vulnerability to climate change. The influence of vulnerability on allocation is contested among scholars, partly due to the difficulty of measuring it.

Depending on the vulnerability indicator used, authors draw different conclusions regarding its influence on adaptation aid. Some studies use aggregate vulnerability indices, which measure vulnerability as a function of various elements (typically a combination of exposure, sensitivity and/or adaptive capacity) (Saunders, 2019; Doshi & Garschagen, 2020; Eckstein et al., 2021). Depending on the index and country sample used, they find a concave relationship between vulnerability and

adaptation aid (Saunders, 2019), a strong positive correlation (Robinson & Dornan, 2017), or no correlation (Doshi & Garschagen, 2020; Robinson & Dornan, 2017). Using disaggregated indicators for vulnerability also produces varied results. Weiler et al. (2018) found that physical vulnerability is a strong determinant of adaptation aid, while adaptive capacity plays no role. Among Small Island Developing States (SIDS), GDP per capita shows a positive correlation to adaptation aid, meaning that poorer states are favoured (Robinson & Dornan, 2017). These inconsistencies highlight the importance of considering the sample and methods used, but also of the difficulties that arise from the lack of a clear definition of vulnerability (Betzold & Weiler, 2018). Even with a clear definition of vulnerability, there would still be the challenge of how to measure it. I discuss this issue further in the following section.

In the donor interest model, donors use aid as a tool to maximise commercial, political or security interests abroad (McKinlay & Little, 1977). For instance, donors may favour recipients whose voting aligns with their own in the UN General Assembly (Dreher et al., 2008) or who can support their geopolitical interests (Alesina & Dollar, 2000). Proximity between the donor and recipient also plays a role in the form of physical distance, colonial history, or shared language or religion (Clist, 2011). Alternatively, some scholars suggest that aid may compensate for a lack of colonial history by allowing donors to establish and strengthen ties with recipient countries that would otherwise not exist (Bertoli et al., 2008; Fuchs et al., 2012).

That donor interest is influential is generally supported in the adaptation aid literature, although there is disagreement over the choice of indicators. Saunders (2019) finds no evidence overall that bilateral donors of adaptation aid favour political allies. Instead, he argues, they are more likely to choose recipients that are closer and with whom they share more bilateral trade (Saunders, 2019). Echoing this, Michaelowa et al. (2020) find that bilateral adaptation aid is driven by market and investment opportunities. Meanwhile, Doshi & Garschagen (2020) show that political priorities and diplomatic relations are a factor in allocation. Controlling for donor characteristics shows that when Ministries of Environment are in charge of aid allocation they tend to favour political allies in the UNFCCC as recipients (Peterson & Skovgaard, 2019). Saunders (2019) furthermore finds that colonial history is a positive and significant determinant for adaptation aid, although Robinson & Dornan (2017) argue that this is not the case for SIDS. The literature on adaptation aid is criticised by Barrett (2022) for failing to adequately incorporate donor interest as a dyadic relationship in their models. Controlling correctly for this relationship, he argues, may remove any statistical relationships between vulnerability and allocation (Barrett, 2022).

The third model, recipient merit, assumes that donors use aid to reward “good governance” in the recipient country, such as the existence of sound economic policies and democratic institutions

(Alesina & Dollar, 2000; Betzold & Weiler, 2018). Donors are concerned with effectiveness and there is evidence that the previously mentioned policies and institutions are necessary for aid to create growth (Burnside & Dollar, 2004, 2000; United Nations, 2002). The emphasis on effectiveness creates path dependency in aid allocation. Past recipients are more likely to receive aid again in the future due to existing networks that lower the transaction costs and thereby increase aid efficiency (Betzold & Weiler, 2018; Francken et al., 2009). This evidence is echoed by Robertsen et al. (2015), who show that bilateral adaptation aid to Sub-Saharan African countries is more likely to target countries with democratic characteristics and with which the donor has a pre-existing aid relationship. Similarly, among SIDS, higher quality of governance is also a positive determinant (Robinson & Dornan, 2017).

Finally, population size, network effects and recipient interest also play a role in the allocation of ODA and adaptation aid. Studies show that while countries with larger populations are more likely to receive adaptation aid, smaller countries receive a higher amount per capita (Betzold & Weiler, 2018; Robinson & Dornan, 2017). That may occur because the same project will have a very different cost per capita depending on the size of the population (Betzold & Weiler, 2018). Additionally, the theory on network effects argues that donors are influenced by each other's allocation decisions. This can take the form of coordination, whereby donors focus on different recipients to spread the aid, or herding, in which donors focus on the same recipients (Betzold & Weiler, 2018). Several scholars have found that in practice herding is more common, creating so-called "donor darlings and orphans" as some recipients attract substantial funding while others are overlooked (Berthélemy, 2006; Frot & Santiso, 2011; Klasen & Davies, 2011; Weiler & Klöck, 2021). More recently, recipient interest has been raised as a determinant of adaptation aid (Doshi & Garschagen, 2020). This is based on evidence suggesting that recipients with higher ambitiousness and commitment to climate adaptation and constructive engagement in the UNFCCC are more likely to receive funds (Doshi & Garschagen, 2020).

2.2 Beyond aggregate data

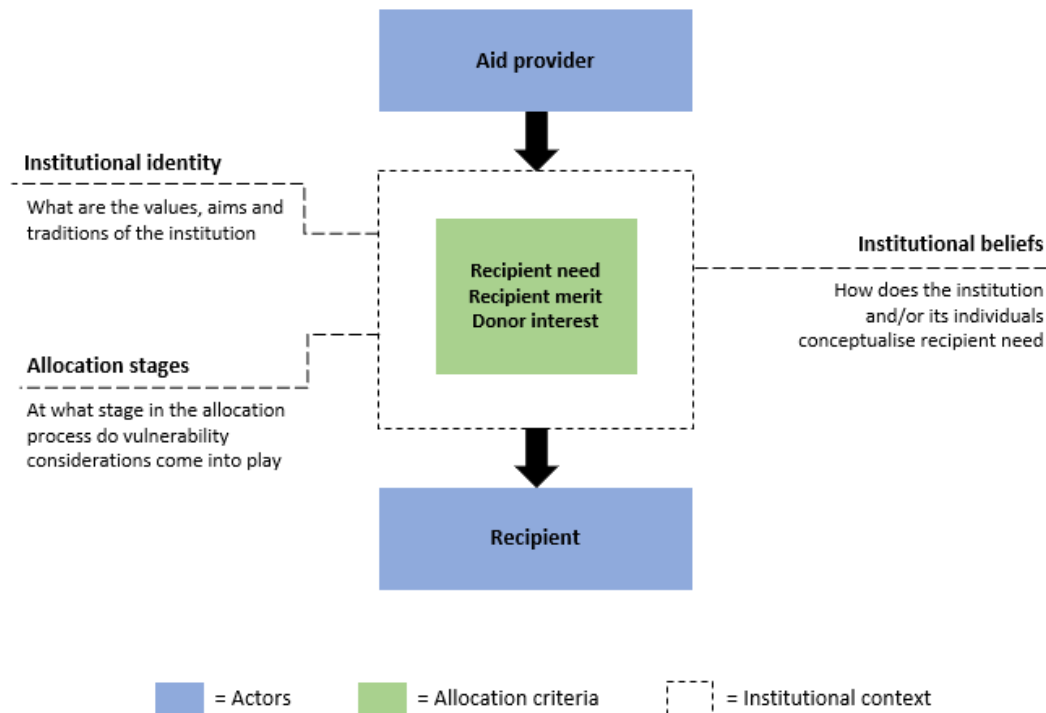
The studies discussed above show varied, and sometimes conflicting, results regarding the determinants of adaptation aid. This could be due to several reasons. Firstly, studies use different indicators of vulnerability: disaggregate indicators range from e.g. physical exposure (Weiler, Klöck and Dornan, 2018) to GDP per capita (Robinson & Dornan, 2017) and health sector sensitivity (Weiler, 2019). Aggregate indicators include the Climate Risk Index (CRI), which measures historical damage and loss (Robinson & Dornan, 2017), and the Notre Dame-Global Adaptation Index (ND-GAIN), which estimates future impacts (Saunders, 2019). The issue is particularly exposed in Robinson & Dornan (2017), who apply the CRI and ND-GAIN to the same sample of SIDS and find different results regarding the role of vulnerability in allocation. Moreover, studies have neglected to examine whether the

indicators are compatible with donors' understanding(s) of vulnerability. Secondly, these indicators only reflect characteristics of the recipient countries, while neglecting how donors' procedures and bureaucratic policies influence aid delivery (Dietrich, 2021). Aggregate data on recipient characteristics conceal differences in donor behaviour (Hoeffler & Outram, 2011). Thus, although donor-specific effects are a significant predictor of aid, this is not captured by conventional aid allocation models (Hoeffler & Outram, 2011).

The challenge with aggregate data equally applies to measuring vulnerability. The recipient need model implies that vulnerability is measured at the national level and comparable across countries. Consequently, to assess the role of vulnerability in adaptation aid allocation, studies use national indices that rank countries according to certain indicators. However, this obscures the fact that vulnerability is highly context- and scale-dependent. Vulnerability can differ greatly within countries, regions, sectors and even cities due to uneven distribution of exposure, sensitivity and adaptive capacity (Kumar et al., 2016; Macharia et al., 2020). Because it is shaped by a combination of global, regional and local factors, different vulnerability phenomena are detectable at different spatial scales (Lioubimtseva, 2015; Fekete et al., 2009). Accurately understanding the role of recipient need in allocation decisions therefore requires that we look beyond aggregate patterns and examine donor procedures and criteria more closely.

Figure 2.1 sets out the conceptual framework for my study. I ground my analysis in the existing models from the allocation literature: recipient need (vulnerability), recipient merit, and donor interests. There is no evidence that the models are conceptually flawed, my previous discussion has rather pointed to issues in how studies apply them. Inspired by Dietrich's (2021) assertion that donor institutions are key to understanding aid delivery, I argue that aid criteria are always embedded within an institutional context. Accordingly, I seek to understand how the latter may inform a more accurate assessment of allocation determinants. The institutional context includes, but is not limited to, the institutional identity, institutional beliefs and allocation stages. The institutional identity consists of the aims, values and traditions of the donor, reflecting its ideological foundation (Dietrich, 2021). Institutional beliefs refer to the knowledge and ideas informing how the donor understands vulnerability. This is inspired by Kuhn's (1970) argument that shifting scientific paradigms dictate the assumptions, methods and solutions for a community of practitioners. Finally, allocation stages refer to the fact that there are different stages in the allocation process during which vulnerability considerations may come into play (Petersen & Skovgaard, 2019).

Figure 2.1: Conceptual framework



3. Case selection

My paper addresses the research gap on how adaptation aid providers understand and operationalise vulnerability (Peterson & Skovgaard, 2019). I focus my analysis on Germany. With €5.34 billion delivered as climate finance in 2021, split between adaptation and mitigation, it is one of the biggest providers of adaptation aid to developing countries (BMZ, 2022a). Like other bilateral donors, most of Germany's international climate aid is delivered through its general ODA budget.

Few studies have attempted to explain the allocation of German adaptation aid and with differing results. Betzold (2015) found that Germany favours its economic and political partners, and countries that are geographically closer. Poorer countries receive more adaptation aid on average (Betzold, 2015), however other indicators of vulnerability have no significant influence on allocation (Betzold, 2015; Doshi & Garschagen, 2020). In contrast, a report from the German Institute for Development Evaluation (DEval) concluded that Germany is more likely to make adaptation commitments to countries with a high level of exposure and sensitivity and low adaptive capacity (Noltze & Rauschenbach, 2019). In general, those countries also tend to receive a higher volume of funds, except from SIDS, which receive below average adaptation funds (Noltze & Rauschenbach, 2019). The latter is consistent with Nunnenkamp & Öhler's (2011) finding that there is a large country-bias in German ODA. Additionally, Germany tends to commit more adaptation aid to countries in which other donors

are already active (Noltze & Rauschenbach, 2019), although they are mindful of having an “added value” (Doshi & Garschagen, 2020, p. 11). Finally, recipient interest is an important factor, and diplomatic disputes can end cooperation (Doshi & Garschagen, 2020).

The studies discussed above focus on recipient characteristics and combine aggregate data from different federal ministries (Betzold, 2015; Noltze & Rauschenbach, 2019; Doshi & Garschagen 2020). However, within Germany allocation criteria may vary significantly across different delivery channels, as ministries and other donor institutions have their own distinct objectives (Nunnenkamp & Öhler, 2011). I focus my analysis on the BMZ, as they are responsible for delivering more than 85% of German adaptation aid (BMZ, 2021a).

4. Research methods

To examine the role of vulnerability in BMZ’s allocation of adaptation aid, I conducted a case study of the ministry’s allocation process. Below I explain my data sources: quantitative data on aid flows, interviews and content analysis. This includes a description of the coding framework used for my analysis. Finally, I reflect on potential limitations of my study and how I addressed them in my research.

I obtained data on German aid commitments between 2012-2019 from the OECD Credit Reporting System (CRS). Aid commitments may differ from actual disbursements, but they give a more accurate indication of the provider’s intentions. I chose these years because the Rio marker⁶ on climate change adaptation was introduced in 2010 (OECD, 2011) and its application may have been inconsistent in the first years. Furthermore, I excluded data from 2020 as the COVID-19 pandemic may have disproportionately affected aid flows. CRS indicates through which channel the aid was delivered, but this variable is largely disregarded in previous studies. It also distinguishes between “principal” aid, meaning that a project has adaptation as its core objective, and “significant” aid, meaning that adaptation is a secondary objective (OECD, 2011). I adjusted the data for inflation and used the statistical software *R* to isolate aid commitments from BMZ. With this new data set, I performed exploratory data analysis to get an overview of the aid distribution between regions, countries and sectors. The information was used to inform my interviews and to corroborate my findings.

I conducted fourteen semi-structured interviews with a total of fifteen participants⁷. My interview protocol was based around the three key concepts that arose from my conceptual framework:

- *Allocation stages*

⁶ The Rio markers are a tracking system used by the OECD to monitor how aid targets the various objectives of the Rio Conventions (OECD, 2011). Other Rio markers include climate mitigation, biodiversity and desertification.

⁷ To keep their identities anonymous, informants are referred to by an assigned number between 1-14.

- 1 How is BMZ's process for allocating adaptation aid structured?
- *Institutional beliefs*
 - 2 How does BMZ conceptualise vulnerability to climate change?
 - 3 How is vulnerability considered in the allocation process?
 - *Institutional identity*
 - 4 What other factors influence allocation decisions?

Given my research aims, I was particularly interested in talking to people involved in the allocation process. Interview participants included current and former staff from the German Agency for International Cooperation (GIZ)⁸, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and German embassy staff posted in a recipient country. I furthermore interviewed climate finance experts from Oxfam Germany and the German Institute for Development Evaluation (DEval). All interviews were recorded with the informants' consent and transcribed. In addition to this, I received three written responses from BMZ staff.

All the documents used in my content analysis were suggested to me by informants, hence I consider them as extensions of my interviews⁹. Most of the documents contain official BMZ procedures and objectives that my informants use to guide their work. Other documents, e.g. press releases, were suggested because informants felt that they illustrated their statements. Documents cannot show us how an institution operates in real life (Atkinson & Coffey, 1997), hence I relied on the interviews for a practical understanding of how the guidelines contained in the documents are applied.

The interview transcripts and documents were coded using the MAXQDA software. My coding framework (table 2.1) has 4 overall themes, with 15 subcategories total. The purpose of this paper is not to identify new criteria for adaptation aid, but rather to understand how current criteria are applied in the allocation process. Accordingly, I used a combination of inductive and deductive approaches (see Azungah, 2018). In the topic *Criteria*, I coded for criteria already identified in the literature, and under the topics *Institutional identity*, *Allocation stages* and *Institutional beliefs* I allowed themes to emerge from the data. The latter three topics correspond to the three elements of my conceptual framework. *Institutional beliefs* apply to all aspects of BMZ's work, but here I focus specifically on how it relates to vulnerability. To ensure consistency in how the variables were applied, and to identify patterns, I returned to recheck my initial coding throughout the data analysis process (Richards, 2015).

⁸ GIZ is an implementing agency for BMZ. They act as advisors and are responsible for carrying out projects and programmes on their behalf.

⁹ A complete list of the documents used in the content analysis is available in the appendix (table A.1).

Table 2.1: Coding framework

Topic	Categories	Examples of codes
Institutional identity	Aims	Aid objectives, intersection between climate and development
	2030 reform	Changes in aid structures, changes in partner countries
Allocation stages	Procedures within BMZ	Aid budgets, aid guidelines, cooperation with implementing agencies
	Partner countries	Choosing partner countries, cooperation, partner interests and needs
	Mainstreaming	Climate mainstreaming procedures
	Financial instruments	Grants, loans, investments
	Access	Political access, data availability
Institutional beliefs	Definitions	Definitions, vulnerability factors, lack of clarity
	Assessment	Indicators, country self-assessments
	Scale	Local, regional, national
Criteria	Donor interests	Distance, security concerns, economic interests
	Recipient need ¹⁰	Exposure, economic need, adaptive capacity, internal conflict, sensitivity
	Recipient merit	Governance, policy, institutional capacity, ambition
	Efficiency/effectiveness	Efficient use of funds, anti-corruption, public support
	Network effects	Considering other donors' activities

One important limitation of the study is that political change may affect the way in which adaptation aid is allocated (Dreher et al., 2013). I considered this by asking informants how they perceived that political changes in BMZ had influenced their work. Additionally, in 2020 BMZ launched the *2030 reform*, which aims to restructure aid delivery. Implementation is still in progress, and it is not yet possible to predict exactly how the reform might change aid allocation. However, as the reform

¹⁰ 'Recipient need' refers to the role of vulnerability as a criterion in decision-making. The topic *Institutional beliefs* explores the concept of 'Recipient need'.

involved a restructuring of the list of partner countries, it does reveal some important priorities within BMZ (as discussed in the results section). Moreover, while political priorities and procedures might change, this does not undermine the argument that we must consider the institutional context.

5. Results

In the following part I present my research findings, beginning with a description of how German adaptation aid is distributed across sectors, countries and financial instruments. I structure the rest of my findings around the three elements of the institutional context as suggested in my conceptual framework: institutional identity, institutional beliefs and allocation stages. The aim is to examine how each of these elements shape the allocation of adaptation aid.

5.1 Distribution of BMZ's adaptation aid

Firstly, we must understand the budget structures that BMZ operates within. BMZ's adaptation aid comes through two budget posts, each with its own separate allocation procedures: allocation by financial instrument and allocation by theme (German Federal Government, 2020; Wencker, 2022). Allocation by financial instrument encompasses Technical Cooperation and Financial Cooperation. In this budget post, funds are earmarked to a specific instrument (technical or financial). Following this, the recipient country is chosen and finally the focus areas for cooperation are defined (Wencker, 2022). Allocation by theme, under the title 'special initiatives' (author's transl.)¹¹, follows an inverted order. Funds are earmarked for a specific theme, after which the recipient country is chosen (Wencker, 2022). The Parliament must approve the budget posts for the financial instruments and themes, but BMZ determines the geographical and sectoral distribution (Wencker, 2022). The CRS data does not indicate which budget post funding comes through. In 2019 (the only year for which precise data is available), the special initiative for climate change accounted for €85.4 million. of BMZ's adaptation aid (Deutsche Klimafinanzierung, n.d.). According to the CRS data, BMZ allocated a little over €1.3 bn in adaptation aid that year¹² and we must therefore assume that the financial instruments accounted for the vast majority of the funds.

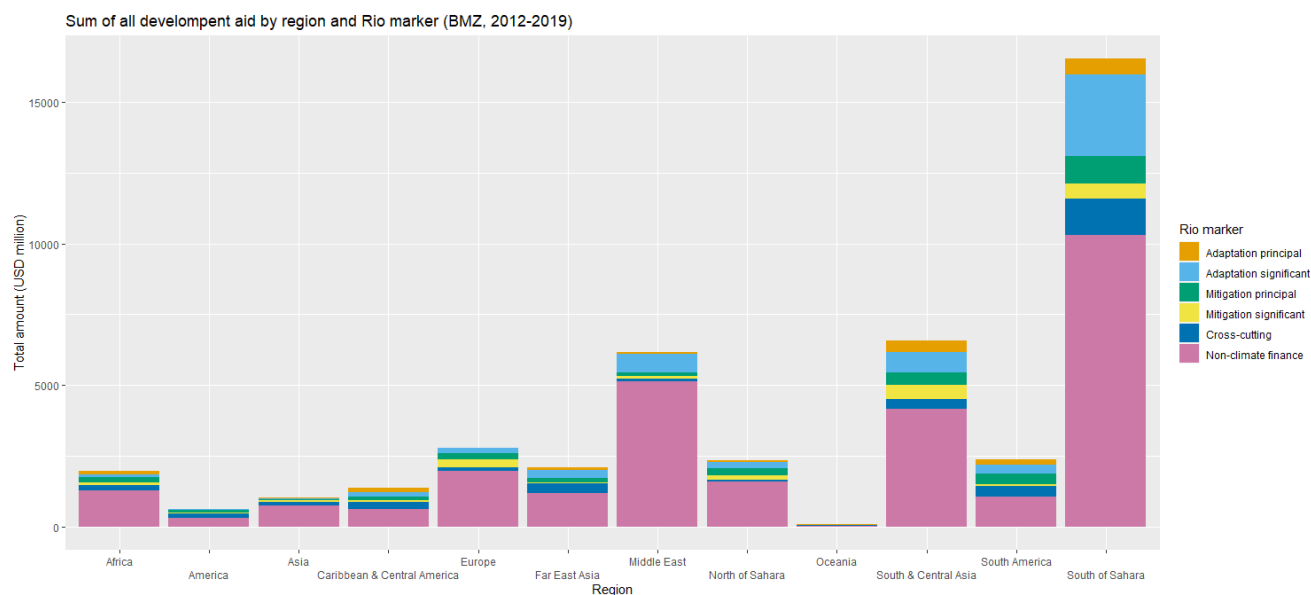
The CRS data shows that roughly three quarters of BMZ's adaptation aid from 2012-2019 had the Rio marker "significant". Accordingly, most adaptation aid is allocated to projects without adaptation as a primary objective. Figure 3 shows the regional allocation of BMZ's adaptation aid. The ratio of principal to significant adaptation aid varies across the regions, but common for all is that they receive mostly significant adaptation aid. The data shows that Sub-Saharan Africa is the largest regional recipient of

¹¹ Translated from German "*Sonderinitiativen*".

¹² Including all projects with a "significant" or "primary" Rio marker on adaptation.

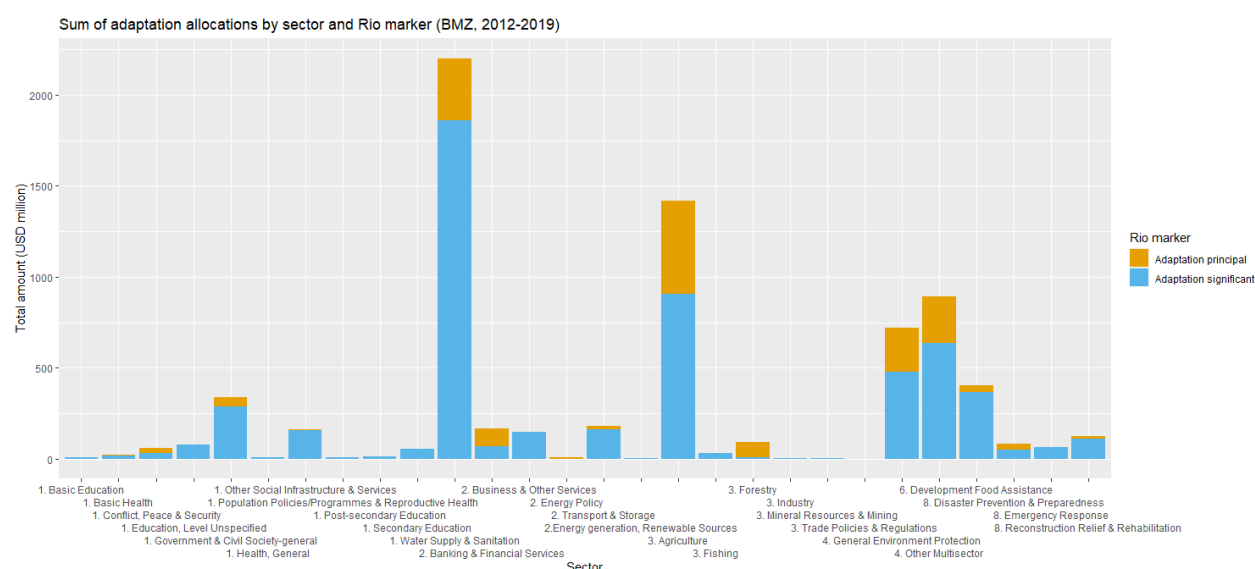
overall aid from the BMZ (fig. 2.2). They receive more than twice the amount of the second largest regional recipient, South and Central Asia. Looking at the aid composition, we see that Sub-Saharan Africa receives both the largest share of adaptation aid and non-climate related ODA respectively.

Figure 2.2: Regional distribution of all aid



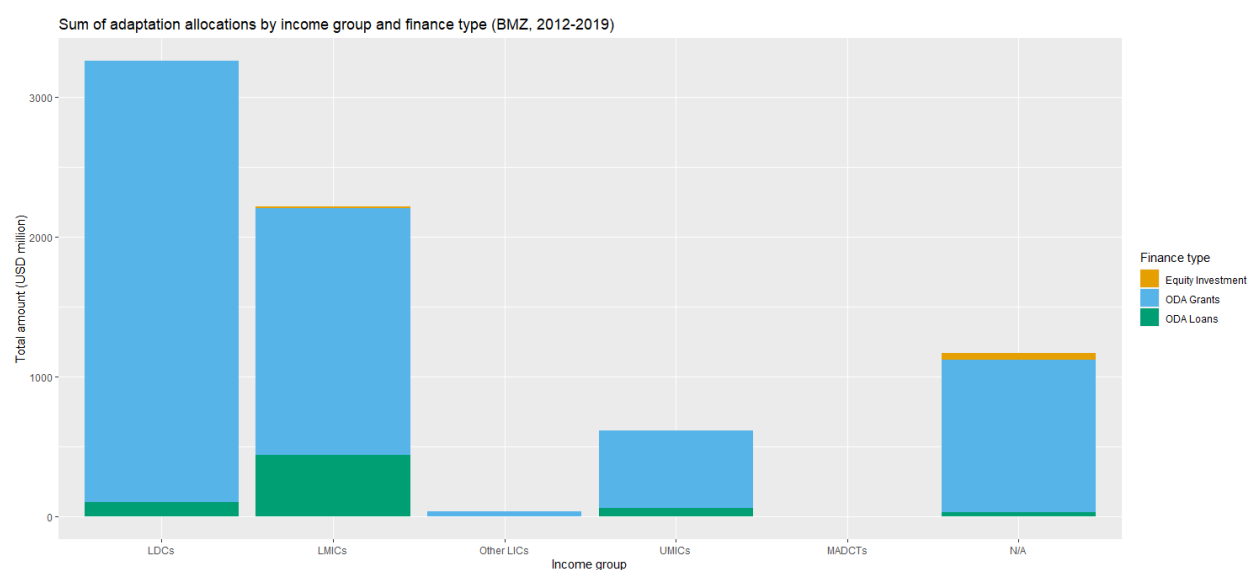
In terms of sectoral distribution, the largest share of German adaptation aid is allocated to projects in *water supply and sanitation* and *agriculture* (fig. 2.3). This is unsurprising given the obvious links of these sectors to climate change. BMZ explains that “water and agriculture are sectors that substantially determine many people’s livelihoods in developing countries but are highly vulnerable to climate change” (BMZ, 2017, p. 10). Both sectors receive mostly significant adaptation aid, but agriculture receives a higher share of principal aid than the water sector.

Figure 2.3: Sectoral distribution of adaptation aid



Another relevant detail is how adaptation aid is distributed across income groups and with which financial instruments. The largest share is allocated to LDCs, followed by lower middle-income countries (LMICs), and upper middle-income countries (UMICs) (fig. 2.4). Other low-income countries (LICs) and more advanced developing countries and territories (MADCTs) receive the lowest share. A significant amount is allocated to regional projects, and is therefore not linked to a particular income group.

Figure 2.4: Allocation of adaptation aid by income group¹³



¹³ The column "N/A" refers to aid delivered to regional projects.

Finally, it is worth looking at which individual countries receive the most adaptation aid from BMZ (table 2.2). A few of the top recipients of adaptation aid are also among the top recipients of non-climate related ODA from BMZ. Many of the countries listed have very large populations, with the notable exception of Palestine (4.9 million), Jordan (11.1 million) and Bolivia (12.1 million). This could support Nunnenkamp & Öhler's (2011) argument that Germany has a large-country bias in their aid allocation.

Table 2.2: Highest recipients of BMZ adaptation aid (2012-2019)

	Highest recipients of BMZ adaptation aid	Total amount (USD million)	Population (million) (World Bank, n.d.)
1	Jordan*	348.3	11.1
2	Ethiopia (LDC)*	249.4	120.3
3	Bangladesh (LDC)	238.5	169.4
4	Mali (LDC)	230.8	21.9
5	Afghanistan (LDC)*	230.2	40.1
6	Bolivia	226.8	12.1
7	India	218.5	1,407.6
8	Kenya	215.1	53.0
9	Palestine	215.0	4.9
10	Uganda (LDC)	195.5	45.9

* = the country is among the ten highest recipients of non-climate related ODA from BMZ during the same period.

This quantitative overview of the broad allocation patterns of BMZ's adaptation aid provides the basis for the following discussion on how the institutional context shapes allocation. In the next sections I will shed light on how the patterns can be explained by BMZ's institutional identity, institutional beliefs and allocation stages.

5.2 Institutional identity

Institutional identity refers to the donor's aims and values. In this section I will focus, on BMZ's core aims and their value of pursuing country-driven development. BMZ pursues partnership-driven development, based on the interests and priorities of both BMZ and the partner country. They have a

list of official partner countries¹⁴ in which they focus their aid activities, including adaptation projects (Wencker, 2022). In technical and financial cooperation, projects are agreed in collaboration with the partner government so that they align with both BMZ and the partner's priorities. Every two years, BMZ conducts negotiations with their partner governments to agree on mutual priorities and which projects to implement (int. 2, 5, 10; BMZ, 2021b). The 2030 reform emphasises that BMZ's "overarching aim remains overcoming hunger and poverty" (BMZ, 2020, p. 3). Within this, they identify five core areas, of which one is climate change (including adaptation)¹⁵. Hence, adaptation is one of BMZ's priorities when projects are decided, however it also needs to be a priority of the partner country to be implemented. This confirms Doshi & Garschagen's (2020) argument that recipient interest is a factor in allocation. A highly vulnerable country could have other more pressing development priorities, and a partnership-oriented approach would require that those are prioritised¹⁶. However, even if adaptation is not the main objective of a project, BMZ can still try to bring in an adaptation aspect through climate mainstreaming.

Prior to the 2030 reform, adaptation was a cross-sectoral theme to be mainstreamed into development projects wherever applicable. With the reform it became an independent objective while simultaneously remaining a cross-sectoral theme (int. 1; BMZ, 2020). How adaptation is incorporated into BMZ's aims could partly explain the distributional patterns presented in section 5.1. Recall that BMZ predominantly allocates significant rather than principal adaptation aid, and that the water and agriculture sectors receive the largest shares (fig. 2.3). Adaptation mainstreaming is voluntary, and it is therefore up to those in charge of a particular portfolio whether to include an adaptation aspect in their projects (int. 1, 2). For this reason, adaptation mainstreaming is more likely to happen in projects that have an obvious climate link, such as water and agriculture (int. 1, 2). Furthermore, staff who have a background in climate projects are more likely to bring a climate angle into development projects (int. 1, 2). Thus, having adaptation purely as a cross-sectoral theme could favour adaptation spending in countries with more water and agriculture projects, rather than those that are most vulnerable (although those might overlap).

Finally, it is noteworthy that the quality criteria that BMZ sets out in their 2030 reform do not mention vulnerability to climate change (table 2.3). It must be assumed that an institution's quality criteria reflect its priorities. Some of the criteria listed, eg. poverty reduction, contribute to vulnerability reduction, but only partly. This has two possible implications. On one hand it could strengthen the view that adaptation, and by extension vulnerability reduction, are not primary aims of the BMZ. One the

¹⁴ The selection of partner countries is discussed in section 4.4.

¹⁵ See detailed information on the five core areas in the appendix (table A.2).

¹⁶ BMZ targets recipient countries with similar interests and priorities (see section 4.4).

other hand, it could be an expression of the difficulty of capturing vulnerability. This relates to the institutional beliefs regarding vulnerability, which I elaborate on in the next section.

Table 2.3: BMZ's quality criteria (BMZ, 2020, p. 10)

SIX QUALITY CRITERIA	
Our quality criteria are a mark of what defines development cooperation as value-based, sustainable and forward-looking. The quality criteria apply to all measures.	
(1) Human rights, gender equality and disability inclusion	all SDGs
(2) Anti-corruption and integrity	SDG 16
(3) Poverty reduction and inequality reduction	SDGs 1 and 10
(4) Environmental and climate impact assessment	SDG 13 (and others)
(5) Conflict sensitivity (Do No Harm approach)	SDG 16 (and others)
(6) Digital technology ("digital by default" approach)	all SDGs

Overall, institutional identity influences allocation in several ways. The value of country-driven development means that BMZ cannot autonomously decide where to spend their adaptation aid. Rather, allocation is an outcome of both donor and recipient interests and priorities. However, it is conceivable that the more vulnerable countries will have a greater focus on climate adaptation in their national priorities. Furthermore, it matters how adaptation is incorporated in the institution's aims (as a cross-sectoral theme or an independent objective). If the primary aim of the project is not climate adaptation, then climate vulnerability is less likely to be a central criterion for allocation (but rather some other indicator of recipient need). It would be interesting to test whether there is a difference in allocation prior to and following the implementation of the 2030 reform that established climate adaptation as an independent sector in BMZ's development work.

5.3 Institutional beliefs

Institutional beliefs refer to the knowledge and ideas that a donor relies on to organise its activities. In this case, I focus particularly on BMZ's institutional beliefs regarding vulnerability.

BMZ emphasises in its climate strategy that it "designs its entire financial commitment in such a way that it is consistent with the goals of the Paris Agreement" (BMZ, 2021a, p. 5, author's transl.). The Paris Agreement stipulates that financial resources should prioritise "those that are particularly vulnerable [...] such as the least developed countries and small island developing states" (UNFCCC, 2015). The view that LDCs and SIDS are particularly vulnerable is echoed by BMZ (BMZ, 2021a, 2019).

However, BMZ further adds that “[p]articularly vulnerable countries as well as disadvantaged and marginalised persons and groups should be able to increase their adaptive capacities [...]” (BMZ, 2021a, p. 20, author’s transl.). The latter would suggest that they consider it an equal priority to support persons and groups in countries that are neither LDCs nor SIDS with adaptation activities. This does not necessarily signify a down prioritisation of the “particularly vulnerable” but may instead suggest an approach that does not consider vulnerability purely at the national level.

I was unable to find a clear and commonly agreed indicator of vulnerability within BMZ that would enable a comparison between recipient countries. BMZ adheres to the IPCC definition of vulnerability, which does not suggest specific indicators or approaches to measuring vulnerability (int. 2, 4, 6). Informants and reports mentioned various factors such as exposure to natural hazards, lack of institutional and financial capacities, dependence on natural resources, and conflict. The diverse views do not reflect incoherence or disagreement within BMZ. On the contrary it stems from an approach to vulnerability that is incompatible with that of previous allocation studies. GIZ, who are responsible for conducting BMZ’s vulnerability assessments, typically limit their studies to a particular sector and country. The *Vulnerability Sourcebook* (GIZ, 2014) is the step-by-step guide for designing and implementing assessments on vulnerability to climate change and provides an insight into GIZ’s approach to vulnerability. It states that “vulnerability is not a measurable characteristic of a system” but rather a complex interaction of various factors (GIZ, 2014, p. 26). There is no fixed rule for which factors should be considered or which methods to use. They add that it is not possible to ‘measure’ vulnerability, but only to ‘assess’ it (GIZ, 2014, p. 26). The Sourcebook indicates a bottom-up approach to vulnerability, as the whole assessment is based around identifying local impacts and impact chains. Following the IPCC AR5, the Sourcebook was updated to incorporate the shift in focus from vulnerability to the risk of climate-related impacts that may harm a system (Zebisch et al., 2017). The ground-up approach to vulnerability used by GIZ is incompatible with the logic of the recipient need model, which measures vulnerability as an aggregate value at the national level. Vulnerability is specific to a certain system and not comparable across different contexts. With this in mind, we can examine how vulnerability is operationalised at different stages of the allocation process.

5.4 Allocation stages

The selection of partner countries (selection stage) and allocation of funds (allocation stage) are two separate processes, albeit both linked to the overall institutional aims. Peterson & Skovgaard (2019) find that Ministries of Development are often inconsistent in these stages, and I therefore examine each process separately to identify how vulnerability is reflected vis-à-vis other criteria.

5.4.1 Vulnerability in selection of partner countries

With the 2030 reform, BMZ shortened their list of partner countries from eighty-five down to sixty countries (BMZ, 2020). Five new countries were later added, bringing the total number of partner countries to sixty-five at the time of writing (BMZ, 2022b)¹⁷. At the same time, partner countries were organised into three categories (table 2.4) according to thematic focus, level of development and type of funding (Wencker, 2022). None of the partner categories have climate adaptation as an explicit priority. While climate is referenced as a motivation for Global Partnerships, it primarily relates to mitigation. Only Bilateral Partnerships, with its aim to “achieve shared development goals”, contains an indirect reference to adaptation.

Table 2.4: BMZ’s partner country categories following the 2030 reform (BMZ, 2020)

BILATERAL PARTNERS	GLOBAL PARTNERS	NEXUS AND PEACE PARTNERS
We work together over the long term to achieve shared development goals.	We work together on tackling the issues defining our common global future, such as the climate.	We work together in crisis and refugee regions to tackle the causes of violence, conflict and displacement.
<i>"Classic" bilateral partnerships</i>		We support them in the process of stabilisation and peacebuilding.
<i>Reform partnerships</i>		
<i>Transformation partnerships</i>		

Among the partnerships that ended with the 2030 reform are several LDCs, including Burundi, Laos, and Sierra Leone. Furthermore, all four SIDS partnerships¹⁸, of which two were also LDCs, were terminated. BMZ does not provide an exhaustive list of selection criteria, but among the decisive factors they highlight level of need, relevance and volume of cooperation and willingness to implement reforms (BMZ, 2020). Level of need refers to broader development needs, as measured through global indices such as the Human Development Index (HDI) (int. 8). It is therefore not a direct expression of climate vulnerability, although some indicators overlap (e.g. income). Volume of cooperation refers to the decision to end activities in countries where BMZ had small programmes compared to other donors (BMZ, 2020), indicating that network effects play a role. Furthermore, the criterion on reform-mindedness, which was instrumental in ending the partnerships with Myanmar and Burundi (int. 8), clearly confirms an emphasis on recipient merit.

My interviews revealed that donor interest is also present in the considerations. An informant explained that tradition matters, as Germany is less likely to end a long-standing partnership (int. 1).

¹⁷ Full list of current and recently terminated country partnerships is provided in the appendix (table A.3).

¹⁸ The four SIDS partners were Cuba, Dominican Republic, Haiti and Timor-Leste (the latter two are also LDCs).

There is also a greater focus on the African continent due to geographical proximity (int. 1, 2, 14). Donor interest furthermore encompasses security interests, which are clearly reflected in the creation of the partnership category “Nexus and Peace”. Even though Egypt is not listed in this category, security interests in the Middle East and North Africa region is an important motivation behind the continuation of this partnership (int. 1).

5.4.2 Vulnerability in allocation

In the previous section I showed that factors other than vulnerability influence the selection of partnership countries. However, we also need to look at how aid is allocated to partners. The large share of adaptation aid going to Sub-Saharan Africa (see fig. 2.2) is in line with BMZ’s focus on the African continent. The allocation favouring the lowest income countries (see fig. 2.4), could indicate that recipient need plays a role. It could also partly be a result of the focus on Africa, as many LDCs are on the African continent. In addition to aid volume, we must also consider the financial instrument. BMZ’s guidelines state that the financial instrument is determined by the economic situation of the partner country (recipient need) (BMZ, 2021b). Hence why LDCs receive a higher share of grants than higher-income groups.

Many of the largest recipients are highly vulnerable countries with large populations (see table 2.2). Additionally, BMZ’s project evaluation indicators emphasise the number of beneficiaries (BMZ, 2021a). Together, this suggests that population size plays a role in allocation. Exceptions to this are Jordan, Bolivia and Palestine, which have small populations. The top recipient, Jordan, ranks number 73 out of 182 countries on the ND-GAIN vulnerability index, reflecting a relatively low vulnerability score (ND-GAIN, n.d.). Given BMZ’s approach to vulnerability, it may still have played a decisive role in allocation. Another (not mutually exclusive) explanation for Jordan’s high share of adaptation aid is that it faces high water scarcity (Scott et al., 2003). Indeed, most of BMZ’s development projects in Jordan are in the water sector. Recalling that adaptation is likely to be mainstreamed into water projects, Jordan’s large share of adaptation aid could perhaps be explained by their high number of water projects. Overall, the findings confirm the need to distinguish between the selection and allocation stages. While there are indications that vulnerability is considered at both stages, allocation is also influenced by different (implicit and explicit) considerations.

6. Conclusion

This paper contributes to the debate on vulnerability as a determinant of adaptation aid by examining the role of the institutional context. Based on a case study of BMZ, I argue that allocation criteria are part of a wider institutional context shaping how they are understood and applied. This context

consists of the institutional identity, institutional beliefs and allocation stages. Institutional identity refers to the aims and values of the donor. My findings suggest that the value of country-driven development means that the donor cannot autonomously decide how to spend adaptation aid. Additionally, spending adaptation aid through mainstreaming means that vulnerability is less likely to be a determinant.

Institutional beliefs govern how donors understand vulnerability. Studies examining the role of vulnerability in allocation decisions use quantitative methods and aggregate vulnerability indicators at the national level. However, my findings suggest that BMZ's approach to vulnerability is incompatible with this paradigm as they assess vulnerability at the system-level. This underlines the need for more qualitative research to assess how vulnerability considerations are reflected in donors' decision-making on adaptation aid.

Allocation stages refer to which point in the allocation process vulnerability is considered. BMZ's aid budgets determine whether the project theme or aid recipient is chosen first. Furthermore, having separate stages for selection and allocation stages means that certain criteria are considered before others. Due to BMZ's system-level approach to vulnerability, recipient merit might determine which country is more likely to receive adaptation aid, but vulnerability still shapes how it is spent subnationally. Finally, due to the emphasis on country-driven development and the reliance on adaptation mainstreaming, countries may receive more adaptation aid because they already receive a larger development budget. This highlights that donors' pre-existing aid agendas, determined by their specific aims, are important in shaping the allocation of bilateral adaptation aid.

Until now the literature on adaptation aid allocation has been dominated by quantitative studies with inconclusive results. The inconclusiveness stems from the lack of consideration to the donor context. This paper points to the importance of examining donors' institutional context to understand how aid criteria are understood and applied. In doing so, it shows a different approach to assessing the role of vulnerability in adaptation finance allocation, based on qualitative methods, that sheds light on the intricacies of the allocation process. This may inform future analyses by highlighting the limitations of relying purely on quantitative methods to assess allocation. Future research may build on this paper by assessing whether the institutional context differs across donors and how this affects allocation. It could also assess the processes through which the elements of the institutional context are established, to explain potential differences between donors.

Delays in funding approval and gatekeeping of climate funds: An analysis of adaptation projects in the GCF

Clara B. Gurresø, Laura Kuhl and Feisal Rahman

Climate adaptation proposals sometimes experience delays between submission and approval. Such delays have material outcomes, limiting the implementation of critical climate policies. Practitioners have brought attention to long delays in the approval process of the Green Climate Fund (GCF), the largest source of dedicated climate finance. We examine the delays in GCF's approval process to shed light on disparities in the process. As such, we provide a scholarly perspective on ongoing policy discussions and contribute to the academic debate on whether the most vulnerable countries are prioritised for adaptation finance. We find that across the full portfolio, approved projects spent 480 days (median value) in the pipeline with no observable trend towards faster approval over time. Adaptation proposals spend longer in the pipeline compared to mitigation or cross-cutting projects. Proposals from Small Island Developing States and Least Developed Countries also spend longer in the pipeline compared to other countries. Through interviews and analysis of GCF's feedback on proposals, we identify the main causes of delays and analyse them from a procedural justice lens. While some of the delays for adaptation projects may be explained by capacity differences among applicants, we argue that the discrepancy is also indicative of particular barriers in the approval process. We find that these barriers include a lack of consistency in the approval process and tensions over how to make accurate decisions on adaptation projects. These issues must be addressed if the GCF wants to fulfil its mission of addressing the needs of vulnerable countries.

1. Introduction

Ahead of the 29th Conference of the Parties (COP29) and its anticipated decision on a new international climate finance goal, the failure of developed countries to deliver the promise of USD 100 billion per

year in climate finance looms large. Significant attention has been given to climate finance flows, including the insufficient flows and unequal allocation (Remling and Persson, 2015; Mostafa, Rahman and Huq, 2016; Weiler, Klöck and Dornan, 2018; Bracking and Leffel, 2021; Garschagen and Doshi, 2022), alignment between climate and development finance (Michaelowa and Michaelowa, 2010; Stadelmann, Roberts and Michaelowa, 2011; Sherman *et al.*, 2016; Carter and Calel, 2019; Mitchell, Ritchie and Tahmasebi, 2021; CARE, 2023), and the quality of finance, drawing attention to high proportion of climate finance provided as loans (Nakhooda *et al.*, 2013; Scoville-Simonds, 2017; Carty, Kowalzig and Zagema, 2020). All these analyses clearly point to disparities between climate finance for mitigation and adaptation. Without dramatic, and timely, increases in finance, adaptation will be hindered, given the high reliance of many developing countries on climate finance to meet their adaptation needs (UNEP, 2021). The amount and quality of finance, however, are not the only challenges for adaptation: the process of securing adaptation finance is slow and adaptation projects face barriers to approval.

Fairness of allocation has two separate (albeit interlinked) aspects; distributive justice, referring to allocation outcomes, and procedural justice, pertaining to fair decision-making procedures (Leventhal, 1980). In this study we adopt a procedural justice lens as we focus on one of the challenges for adaptation finance allocation: delays in project approval. Delays can have significant consequences for the success of adaptation projects as underlying assumptions may change over time, resulting in eg. higher costs or reduced effectiveness. On the other hand, poorly designed adaptation projects can result in ineffective use of funds or, in worst case, maladaptation (Magnan *et al.*, 2016). It is therefore crucial to examine whether the delays are justified or not, i.e. whether delays are caused by issues with the allocation procedures or the project proposals.

Our analysis focuses on the Green Climate Fund (GCF) as a case study of the approval process for adaptation finance. The GCF is a primary mechanism for channelling dedicated climate finance to developing countries under the United Nations Framework Convention on Climate Change (UNFCCC). In addition to being the largest UNFCCC fund, the GCF is also a critical case study because of the relatively high degree of transparency offered by the fund. We explore the GCF allocation process, guided by the question: *What drives delays in the allocation process?* The study is structured along three parts: 1) examining whether there are disparities in the delays, 2) identifying the reasons for the delays and 3) assessing whether the reasons for delays reflect procedural justice issues in the approval process. We answer our research question through a mixed-methods approach. Firstly, we conduct quantitative analysis on pipeline data for approved and pending GCF projects to identify patterns in the delays. Secondly, we conduct interviews with applicants and GCF staff to shed light on the causes

of the delays. This is combined with content analysis of feedback sheets that the GCF Secretariat provided to applicants on their proposals.

The paper is organised as follows: **section 2** discusses the literature on fairness in allocation, with particular attention to procedural justice and its elements. It also includes a discussion of adaptation finance in the GCF to provide context for the study. **Section 3** describes our data collection and analysis methods and how they are suited to our research aims. **Section 4** presents our results, beginning with our quantitative analysis of the time projects spend in the pipeline. This is followed by the results from our interviews and finally the content analysis. In **section 5** we discuss our results according to the elements of procedural justice. We argue that delays are caused partly by procedural justice issues in the approval process and partly by proposals not fulfilling the requirements of the fund. We conclude in **section 6** by summarising our findings and reflecting on the theoretical and policy implications of our research.

2. Literature

2.1 Fairness in adaptation finance – why does it matter?

The adverse impacts from climate change are particularly felt by Global South countries that have the least resources to adapt. Therefore, Parties to the UNFCCC agreed in 2009 to mobilise USD 100 billion per year by 2020 to support countries in the Global South in their mitigation and adaptation efforts (UNFCCC, 2009). The finance is channelled through a mix of bilateral, multilateral and private sources (OECD, 2022). Until now, donors have failed to meet their USD 100 billion mobilisation target and most of the mobilised funding goes towards mitigation activities (OECD, 2022). Overall, the adaptation finance available to countries in the Global South is insufficient to meet needs, and adaptation costs continue to rise faster than the volume of adaptation funding (UNEP, 2023). While mitigation projects have universal benefits, adaptation projects only benefit the local communities in which they are implemented (Eyckmans, Fankhauser and Kverndokk, 2016). Given the funding scarcity, combined with localised benefits of adaptation, it is crucial that available finance is delivered to the recipients that need it the most. The Paris Agreement specifies that climate finance should prioritise “particularly vulnerable” countries, including Small Island Developing States (SIDS) and Least Developed Countries (LDCs) (UNFCCC, 2015a). Yet studies find conflicting results on whether allocation indeed favours the most vulnerable countries (Robertson, Francken and Molenaers, 2015; Robinson and Dornan, 2017; Betzold and Weiler, 2018; Noltze and Rauschenbach, 2019; Saunders, 2019; Weiler, 2019; Garschagen and Doshi, 2022). Moreover, fairness in allocation is more complex than just the quantitative flows between donors and recipients as it also includes procedural aspects of the decision-making process.

Fairness in allocation of adaptation finance merits attention for both moral and legitimacy reasons. Climate justice scholars agree on the moral impetus to support the most vulnerable (Farber, 2008; Grasso, 2010; Baatz, 2018; Khan *et al.*, 2020). While industrialised countries are responsible for the vast majority of historical emissions, the Global South suffers disproportionately from the adverse effects of climate change (Schalatek, 2011; IPCC, 2023; Jones *et al.*, 2023). Adaptation measures to avert or minimise these effects are costly and place an unfair burden on already poor nations (Farber, 2008). Thus, the Global North has a moral obligation to contribute to the adaptation costs in the most vulnerable countries (Farber, 2008; Grasso, 2010). Secondly, fairness in allocation influences the perceived legitimacy of donor institutions and thereby their ability to function and maintain their roles (Buchanan and Keohane, 2006; Morse and Keohane, 2014; Tallberg and Zürn, 2019). Institutional legitimacy exists when an institution is perceived to exercise its decision-making rights appropriately (Zürn, Binder and Ecker-Ehrhardt, 2012). The appropriateness of decision-making is evaluated according to similar dimensions as fairness of allocation, namely the institution's output and procedures (Dellmuth, Scholte and Tallberg, 2019).

2.2 Elements of fair allocation

Fair allocation has two dimensions: distributive and procedural justice (Leventhal, 1980). Distributive justice refers to the distribution of funds between recipient countries or projects (Paavola, 2005). Numerous studies explore distributive aspects of adaptation finance flows, including the insufficient size and unequal distribution of financial flows (Remling and Persson, 2015; Mostafa, Rahman and Huq, 2016; Weiler, Klöck and Dornan, 2018; Doshi and Garschagen, 2020; Bracking and Leffel, 2021). Given the objective of the Paris Agreement to prioritise particularly vulnerable countries, the distribution of adaptation finance is often evaluated based on whether it is correlated to countries' vulnerability¹⁹ (Robinson and Dornan, 2017; Weiler, Klöck and Dornan, 2018; Saunders, 2019; Doshi and Garschagen, 2020). Studies find different results regarding whether vulnerable countries are indeed prioritised, partly due to the lack of agreed indicators. Depending on the vulnerability index and country sample used, some find a concave relationship between vulnerability and adaptation aid (Saunders, 2019), a strong positive correlation (Robinson and Dornan, 2017; Weiler, Klöck and Dornan, 2018), or no correlation (Robinson and Dornan, 2017; Doshi and Garschagen, 2020).

Providing more adaptation funds to the most vulnerable countries is not enough to efficiently and effectively reduce vulnerability (UNEP, 2016). Without attention to quality, adaptation projects risk

¹⁹ There is no agreed definition of what "particularly vulnerable" means or what indicators to use, but there is general agreement on the normative principle that the most vulnerable countries should be prioritised in allocation.

having no effect (Barnett *et al.*, 2013) or, in worst case, result in maladaptation by increasing exposure and sensitivity to climate change impacts (Magnan *et al.*, 2016; Schipper, 2020; Eriksen *et al.*, 2021). The latter can take the form of project beneficiaries becoming more vulnerable, shifting vulnerabilities to other non-beneficiary parts of the population, or introducing new problems that are not necessarily vulnerability-related (Schipper, 2020). Besides project quality, it is also important to consider who benefit from the projects since elites and marginalised groups may have differing interests (Kates, 2000). For example the adoption of agro-technology by politically and economically powerful groups in response to droughts can introduce new risks to the rural poor through altered physical and institutional conditions (Warner and Kuzdas, 2016). To avoid elite capture of climate finance, it is important that local actors are involved in all stages of adaptation, from the allocation of funds to the implementation of adaptation measures (Tye and Suarez, 2021; Susskind and Kim, 2022; Rahman *et al.*, 2023). Thus, some studies emphasise factors such as equity and effectiveness to ensure better use of funds (Barr, Fankhauser and Hamilton, 2010; Stadelmann *et al.*, 2012; Persson and Remling, 2014; Klonschinski, 2021).

Procedural justice concerns the qualities of the decision-making processes used to distribute benefits and burdens (Thibaut and Walker, 1975; Leventhal, 1980; Röhl, 1997). Although distributive and procedural justice are distinct dimensions, they interact to produce a sense of (in)justice and thereby legitimacy (Cropanzano and Folger, 1991; Dellmuth, Scholte and Tallberg, 2019). Actors evaluate the fairness of procedures independently of their outcome, but the perceived fairness of an outcome is contingent on fair procedures (Röhl, 1997). Even if an actor's interests are not endorsed in a particular outcome, fair procedures can assure them that they were equally considered and may benefit in future outcomes (Paavola, 2005). Procedural justice has both an objective and subjective meaning (Thibaut and Walker, 1975). In the objective approach, procedures are judged on whether they conform to normative standards of justice (Lind and Tyler, 1988). Meanwhile, the subjective approach considers participants' and observers' response to particular procedures, thus making it a matter of subjective beliefs (Lind and Tyler, 1988). Nevertheless, subjective beliefs are always formed within a socially constructed system of norms and values, and thus causally related to objective procedural justice (Suchman, 1995; Tallberg and Zürn, 2019). Leventhal (1980) suggests six criteria that may contribute to perceptions of fair decision-making processes: consistency, lack of bias, accuracy, correctability, representativeness and ethicality (see table 3.1). The relevance of each criteria varies according to the specific circumstances, as well as people's personalities, so that certain criteria may weigh heavier than others in a given allocation process (Leventhal, 1980). Moreover, perceptions are typically formed based on a series of events, rather than one single event (Röhl, 1997).

Table 3.1: Six rules for fair allocation procedures (Leventhal, 1980)

Rule	Description
Consistency	Allocation procedures should be consistent across persons and over time
Lack of bias	Allocation procedures must avoid self-interest and devotion to doctrinaire views
Accuracy	Decisions must be based on good information and informed opinion
Representativeness	The allocation process must reflect the basic concerns, values and outlook of important subgroups in the affected population
Correctability	The allocation process must include opportunities to reverse and modify decisions
Ethicality	Procedures must be compatible with fundamental moral and ethical values

2.3 Adaptation finance in the Green Climate Fund

One of the key multilateral institutions for adaptation finance is the GCF. The GCF was established in 2010 as an operating entity for the delivery of the USD 100 billion (Bowman and Minas, 2019). It also serves the Paris Agreement, whose goals are partly conditional on the delivery of adaptation finance (Bowman and Minas, 2019). The GCF has three key entities: a Secretariat, an Independent Technical Advisory Panel (ITAP), and a Board. The Secretariat is responsible for day-to-day operations and ensuring that project proposals comply with GCF's criteria and requirements (GCF, 2011). The ITAP consists of technical experts who develop draft assessments of the proposals before forwarding them to the Board for approval (GCF, 2020c). Finally, there is the Board, consisting of 24 members with a balanced representation from the Global North and Global South (Pauw, König and Valverde, 2022). The Board has full responsibility for funding decisions and is accountable to the UNFCCC's decision-making body, COP (GCF, 2011; UNFCCC, 2013). At the time of writing, GCF's approved projects have a total value of USD 42.8 billion, of which USD 11.4 billion are GCF funding and USD 31.4 billion are co-finance²⁰ (GCF, 2023c). Of the approved GCF funding, USD 3 billion have been disbursed (GCF, 2023c).

The GCF has committed to a 50/50 allocation between mitigation and adaptation. It further aims to invest at least half of its adaptation funds in the most climate vulnerable countries, which it defines as the SIDS, LDCs and African States (GCF, n.d.). After years of failing to meet the mitigation/adaptation balance, the GCF appears poised to achieve parity shortly. The balance in approved projects between

²⁰ Co-finance refers to public or private funding mobilised for a particular project in addition to the approved GCF funding (GCF, 2019)

2015-2022 is 51/49% mitigation/adaptation (in grant-equivalent terms), although total finance for adaptation is still only 38% (GCF, 2023c). 54% of adaptation project funds went to SIDS, LDCs and African states, thus meeting their investment goal for the most climate vulnerable countries (Garschagen and Doshi, 2022). While these are noteworthy achievements, the outcomes of allocation decisions do not tell the full story of the challenges developing countries face accessing adaptation finance.

To access funding from the GCF, countries must submit their applications through an ‘accredited entity’. Accredited entities are private or public, non-governmental, subnational, national, regional or international organisations accredited by the GCF Board to submit funding applications and oversee the management and implementation of projects (Garschagen and Doshi, 2022; GCF, 2022). Accredited entities are divided into two categories: direct access entities (subnational, national and regional organisations) and international access entities (eg. UN agencies and multilateral development banks). Despite the GCF’s emphasis on country ownership, international organisations are responsible for more than three quarters of its projects (Kuhl, Ahmed, *et al.*, 2023). Particularly countries with low institutional capacity are heavily reliant on regional and international entities to access GCF funding due to the difficulty of getting national entities accredited (Garschagen and Doshi, 2022; Kuhl, Ahmed, *et al.*, 2023). Accredited entities can influence the design and implementation of adaptation projects, including which local priorities are addressed (Chaudhury, 2020). Furthermore, international access entities often charge a fee for supporting applications, thus reducing the amount of funding that reaches the project beneficiaries (Chaudhury, 2020). The reliance on international access entities therefore constitutes a problem for country ownership.

Even when countries manage to submit their applications, the approval process is long and complex. Concerns with the slow pace and onerous approval process in the GCF, for adaptation in particular, have been raised by developing country Board members (Darby, 2017; Farand, 2021), civil society organisations (Huq, 2019) and GCF’s Independent Evaluation Unit (IEU) (GCF, 2021). The IEU points to the interaction between the Secretariat and national stakeholders as the key point of delay for most proposals (GCF, 2021). Furthermore, Kuhl and Shinn (2022) argue that the political nature of the fund means that proposals are rarely outright rejected. Instead, some proposals stall in the approval process, which may be an indication of a tacit rejection (Kuhl and Shinn, 2022). Another challenge is a lack of clear definitions or unified visions of key investment criteria such as ‘transformational change’ (Kuhl, Shinn, *et al.*, 2023). As a result, technical deliberations on project proposals often reflect broader political processes and divided views between Global North and Global South representatives (Winkler and Dubash, 2016; Kuhl, Shinn, *et al.*, 2023). Given the urgency of climate change, delays in the approval process can affect the adaptive capacity and resilience-enhancing efforts of already

vulnerable populations and lock-in unsustainable development pathways (IPCC, 2023). Delays in the approval of funding have material outcomes, limiting the implementation of critical climate policies that can contribute to climate-resilient green economic development. This is not to suggest that delays in the approval of funding are the only relevant delays in climate finance. After finance is allocated, there are also significant delays in the disbursement of funds and project implementation. However, we focus on the approval process as a first step towards understanding the delays.

This paper examines what drives the delays in GCF's allocation process. The GCF is one of the most important multilateral actors for distributing adaptation finance to the Global South. Fairness in allocation is important for the GCF to conform with normative climate justice values and to maintain its institutional legitimacy. We conceptualise fairness in allocation to consist of two elements: distributive justice, referring to a fair distribution of funds, and procedural justice, pertaining to fair procedures (Leventhal, 1980). In line with the Paris Agreement (UNFCCC, 2015a) and climate justice scholars (Grasso, 2010), we understand distributive justice as allocation that gives special consideration to particularly vulnerable countries, defined as the SIDS and LDCs. Although GCF (nearly) meets its adaptation allocation goal for the most climate vulnerable countries, the allocation process is characterised by long delays that have not been systematically explored. The reasons for these delays are important to understand: are they caused by issues in the allocation process (constituting a procedural injustice) or by other challenges (e.g. quality issues in the proposals)?

3. Methods

The study is structured along three parts: 1) examining whether there are disparities in the delays, 2) identifying the reasons for the delays and 3) assessing whether the reasons for delays reflect procedural justice issues in the approval process. For the first part we use quantitative methods and for the second part we use qualitative methods. In the third part, we reflect on our results through a procedural justice framework. Below we describe our methods in detail.

3.1 Quantitative analysis

This study analysed the amount of time projects spent in the pipeline at the GCF. All data was publicly available from the GCF website. Data was collected for 177 approved projects and 261 projects currently in the pipeline. Data on the length of time projects were in the pipeline as well as key project characteristics were collected from the GCF website as of July 1, 2021. For approved projects, *days in the pipeline* was calculated by subtracting the date the concept note was submitted from the date the project was approved. For projects that did not submit a concept note, the pipeline entry date was the date a full proposal was submitted. Concept notes currently in the pipeline (pending) were also

analysed. At the time of analysis, the website included concept notes submitted through February 2021. Data on more recently submitted concept notes was not available. Based on the date of submission, the length of time in the pipeline was calculated.

To analyse variance in the length of time projects were in the pipeline, the following variables were analysed: thematic area (mitigation, adaptation, and cross-cutting), total financing, GCF finance, implementing entity type (international, national, or regional), region (Arab States, Latin America and the Caribbean, Sub-Saharan Africa, South Asia, East Asia and the Pacific, Europe and Central Asia, and Global), special status of countries (BASIC²¹, LDC or SIDS), and percent of co-financing in the total budget. GCF defines most vulnerable countries as LDCs, SIDS and African States. However, we rely on the Paris definition of most vulnerable, LDCs and SIDS, as this is the most recent political agreement. The GCF website identified the thematic area, financial information, and implementing entity type for each project. Regions were identified based on the UN Human Development Index list of regions. Projects consisting of countries from more than one region were categorised as Global. Projects were categorised as *BASIC* if any BASIC country was included in the proposal. For projects that did not include a BASIC country, they were categorised as *LDC or SIDS* if any of the countries included were an LDC or SIDS. Remaining projects were categorised as *no special status*. Because the size of the project was correlated with many variables of interest, for comparisons across groups, we normalised the time in the pipeline per million USD of GCF funding. We also conducted our analysis with time in the pipeline per million USD of total funding and results were similar.

To test differences in the median values between groups, we conducted Kruskal-Wallis one-way analysis of variance tests. For significant relationships, we conducted post-hoc analysis using Dunn's Multiple Comparison test with Bonferroni specification to test pair-wise comparisons. To measure the strength and direction of correlations between continuous variables, we conducted Spearman's correlations. Data was displayed as two-way scatterplots for relationships between continuous variables and box plots for categorical variables. All analysis was conducted in STATASE15.

3.2 Qualitative analysis

For the qualitative analysis we conducted 16 interviews with actors who have been involved in GCF's application process, particularly for adaptation proposals. A full list of informants is available in table 3.2. The informants have been anonymised on their request; throughout the paper they are referred to by a randomly assigned number. We approached potential informants during the UNFCCC climate negotiations held in Egypt in November 2022 and Germany in June 2023 and used the snowballing

²¹ BASIC is a country grouping in UNFCCC consisting of Brazil, South Africa, India and China.

technique to obtain further interview contacts. The informants represent different roles in the application process, thereby providing diverse insights into the process. Since we were interested in understanding the barriers facing particularly vulnerable countries, most of our non-GCF informants were either from, or worked with, SIDS and LDCs. We focus on national actors and Direct Access Entities (as opposed to International Access Entities) as we expect them to have a better understanding of country needs. Moreover, they are important for GCF's value of promoting country ownership. To avoid a preconceived narrative of the challenges, we used semi-structured interviews that allowed the conversations to flow in different directions. The interviews were organised around three central questions:

- 1) What are the main causes of delay?
- 2) What is the most common feedback on proposals?
- 3) How appropriate are the application requirements to affected countries?

The interviews were recorded with our informants' consent and transcribed. We coded the interviews in the software MAXQDA, using a deductive approach that let themes emerge from the data.

Table 3.2: Anonymised list of informants

Assigned number	Affiliation
1	Direct Access Entity (National)
2	National Designated Authority
3	National Designated Authority
4	National Designated Authority
5	National Designated Authority
6	Government
7	Government
8	Government
9	Subnational government
10	Direct Access Entity (Regional)
11	Consultant for applicants
12	Consultant for applicants
13	GCF

14	GCF
15	GCF
16	NGO

We conducted document analysis on feedback sheets (table 3.3) from the GCF Secretariat on adaptation proposals to triangulate the data from our interviews. The feedback sheets were provided by informants and have been anonymised. We obtained 9 feedback sheets on concept notes and full adaptation funding proposals. Feedback sheets 3-9 were from the same accredited entity, which may create some bias. Given the small sample size for this analysis, it is exploratory in nature, rather than representative of the experience across the GCF portfolio. For projects 1-3 we obtained feedback sheets from two successive feedback rounds, enabling us to compare the feedback on the same project over time.

Table 3.3: Anonymised list of feedback sheets

Project	Feedback sheet assigned number	Submitted by applicant	Reviewed by Secretariat
Concept notes			
1	1	29 Dec 2020	Jan 2021
	2	May 2021	July 2021
2	3	6 Jul 2021	15 Aug 2021
	4	25 May 2022	15 Jun 2022
3	5	N/A	29 Apr 2020
	6	N/A	June 2022
4	7	24 Feb 2022	14 Mar 2022
Funding proposals			
5	8	1 Mar 2022	N/A
6	9	2 Jun 2022	1 Jul 2022

We coded the comments in the feedback sheets in MAXQDA. The coding framework²² is organised according to two themes (*GCF investment criteria* and *Quality*) and combines inductive and deductive approaches. The codes in *GCF investment criteria* reflect the six investment criteria that constitute GCF's investment framework. The aim was to identify whether there are certain investment criteria that lead to more comments by reviewers and thereby contribute more to delays. In addition to the six official investment criteria, we used a seventh category, 'Other', for comments that we were unable to assign to an existing criterion. This does not necessarily imply that the comments are unrelated to any of the criteria, but rather that we did not have sufficient information or context to correctly categorise them.

In addition to coding the investment criteria, we were also interested in the content of the comments. Under *Quality*, we therefore used inductive coding based on insights from the interviews and general patterns that emerged in the feedback sheets. The coding framework distinguishes between 'Data' and 'Methodology' even though they are closely related. The former concerns data availability and the latter concerns institutional capacity to process data. The framework furthermore includes 'Alignment with GCF requirements' (whether the project components meet GCF requirements), 'Climate rationale' (the distinction between climate and development rationales), 'Format' (adherence to application formatting requirements), 'Other quality aspects' (quality of writing and argumentation) and 'Technical' (requests for further information).

To answer the third research question, we reflect on the results from the quantitative and qualitative analysis. We draw on both the objective and subjective dimensions of procedural justice to understand the delays in GCF (Lind and Tyler, 1988; Tallberg and Zürn, 2019). To assess GCF's allocation process, we further draw on the rules for procedural justice suggested by Leventhal (Leventhal, 1980): consistency, lack of bias, accuracy, representativeness and correctability. The sixth rule, ethicality (the moral and ethical compatibility of the process), requires a normative evaluation of the procedures and criteria, which is outside the scope of this study. We interpret representativeness (reflecting the basic concerns, values and outlook of important subgroups in the affected population) to refer to applicants to the GCF. The representativeness of local project beneficiaries is outside the scope of this study.

4. Results

In this section we present and discuss the results from our study. We begin by explaining the approval process and identifying disparities in time spent in the pipeline based on our quantitative analysis.

²² The coding framework is available in the appendix (table B.1).

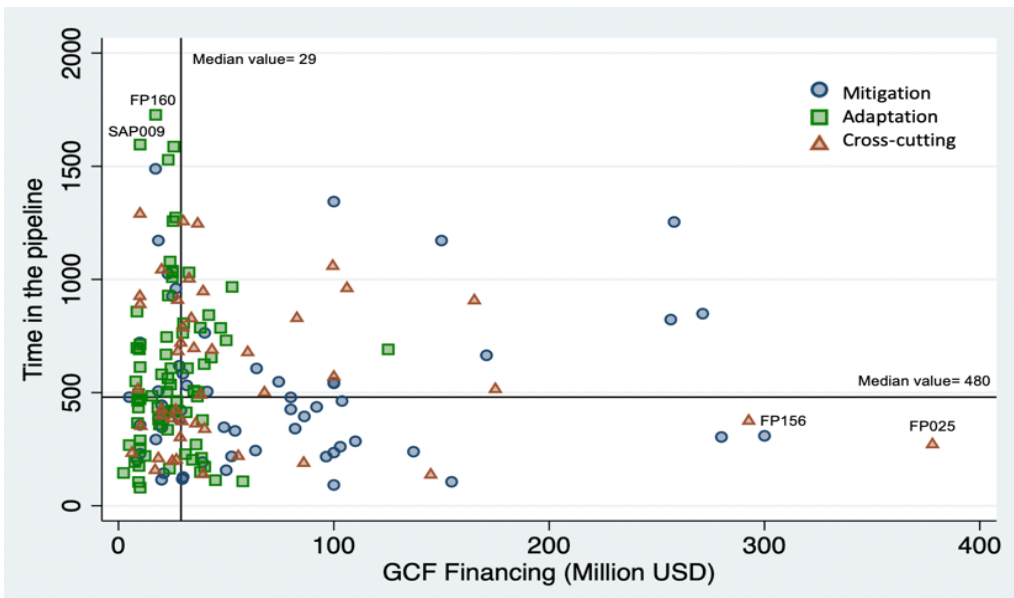
Subsequently, we present our results from the interviews and document analysis to examine the causes of delays.

4.1 Time spent in pipeline

The approval process for a project begins when an accredited entity submits either a concept note or a full project proposal on behalf of an implementing institution. Once in the pipeline, projects go through several rounds of approval: first through the Secretariat, then the ITAP, and finally the Board. At each stage, the submitting entity has an opportunity to respond to comments and revise the proposal. Each of these decision-making units can return a proposal to the previous unit if they have concerns or do not deem it ready for approval. It should be acknowledged that using the time proposals are in the pipeline is likely an underestimate of the full scope of developing a proposal. There is often communication between the secretariat and the nationally designated authority or the accredited entity before a concept note or full proposal is submitted for funding consideration.

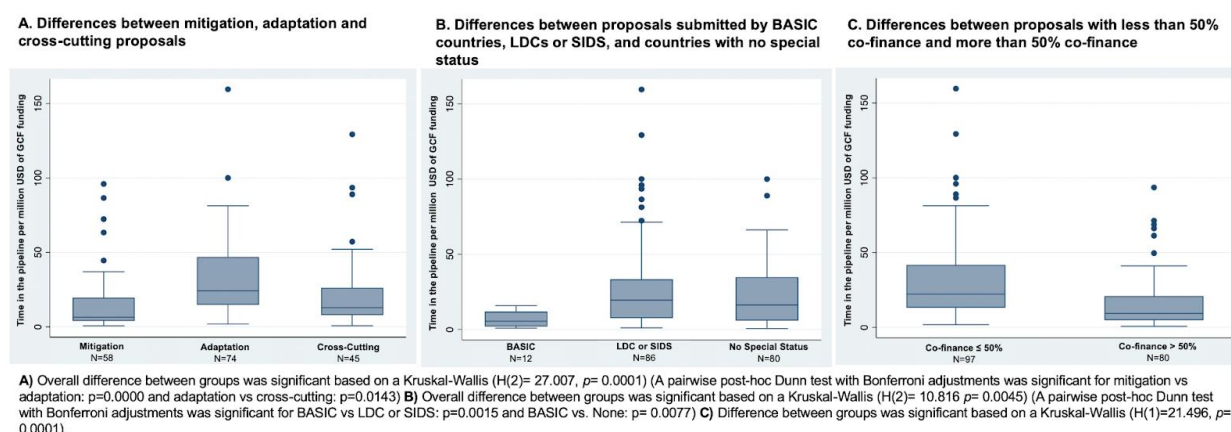
The quantitative analysis shows that approved GCF projects spent a median of 480 days (approximately 1 year 4 months) in the pipeline, but there was significant variation in the length of time projects are in the pipeline. One project was approved 80 days (2.5 months) after entering the pipeline, while another took 1727 days (4 years 7 months) before it was approved (fig. 3.1). While pipeline delays are widely acknowledged as problematic in the GCF, there was no trend towards shorter approval over time, suggesting this issue has not improved despite the attention it has received (see fig. B.1 in appendix).

Figure 3.1: Variation in days in the pipeline based on the amount of GCF finance for mitigation, adaptation and cross-cutting approved projects



While there are idiosyncratic factors that explain some of the extreme variation in approval time, there are also clear patterns that emerge in the length of time projects spent in the pipeline. As can be seen in fig. 3.2, the projects that spent the longest in the pipeline are overwhelmingly adaptation projects. These discrepancies are particularly acute once we account for the variation in the size of adaptation and mitigation projects. The largest projects are all mitigation and cross-cutting projects, and tellingly, the largest projects were approved in less than the median number of days. Adaptation projects spent a median of 24.1 days per million dollars of GCF funding before approval, compared to mitigation and cross-cutting projects, which spend 6.5 and 12.8 days respectively (fig. 3.2a). For context, for the average-sized adaptation project, this is 446 additional days (1 year 2.5 months) before approval compared to a similar-sized mitigation project.

Figure 3.2: Differences between groups in delays per million dollars of GCF funding



Because of the political nature of climate finance under the UNFCCC, projects rarely are outright rejected (Kuhl and Shinn, 2022). Instead, projects remain in the pipeline until they are deemed ready for approval. Therefore, in addition to considering delays among approved projects, it is important to analyse the proposals currently in the pipeline. 261 concept notes (115 of which are for adaptation projects) have entered the GCF pipeline but have not yet been approved. Although it is not possible to assess how many of these will ultimately be funded, it is telling that 221 of them were submitted more than 480 days ago, the median time for project approval, suggesting that they will either be significantly delayed or may not move forward. Unpacking the causes of the delays and the challenges that applicants face in the approval process can help shed light on the disparities between projects.

4.2 Explaining the delays

Many of our informants who had applied to GCF expressed concerns and frustration over delays in the approval process, stressing their urgent adaptation needs and that circumstances could change during

the time their project spent in the pipeline (int. 3, 5, 10). One informant explained for example that their country was challenged by rising inflation, hence long delays in project approval could make a project financially unviable (int. 9). Furthermore, political change at the national or subnational level can result in a project getting dropped because it no longer fits the political agenda (int. 9) or because the politicians are expected to show results within their election cycle (int. 8). This confirms the importance of understanding and addressing the delays.

Two elements contribute to time spent in the pipeline: the amount of feedback rounds that a proposal goes through and the response time between each feedback round. Below we explore each of these elements based on evidence from our interviews and document analysis. We begin by presenting the results from the interviews regarding actors' perceptions of the process and reasons for delays. Subsequently, we present the results from the document analysis to explore how the themes that emerged in the interviews play out in specific proposals.

4.2.1 Perception of the approval process

There are no rules regarding how many rounds of feedback a proposal can or should go through. The Secretariat does its best to make sure that the proposal will go through with ITAP and the Board (int. 4, 14), which could contribute to a long process through extensive feedback. If a proposal goes through many rounds of feedback, there seems to be two possible explanations: either the applicant is not able to revise their proposal to a satisfactory standard, or there is an issue in the feedback and evaluations that they receive from the Secretariat. An applicant emphasised the latter:

“there are too many different people who have to do an evaluation before you get anything. And because they're trying to do it with these independent evaluators, all of these people are then coming to you at different times. There is not enough coordination of that sort of thing at the GCF.” (int. 5)

Another applicant argued that comments are sometimes unresolvable: *“[...] if it could have been resolved then it could have been resolved in the first instance anyway. Why would we require 3-4 iterations?”* (int. 8). The informant perceived these difficult comments as a tacit rejection from the Secretariat: *“the projects are not outrightly rejected but then projects go into limbo. [...] it's one way of saying that OK, we are not going to reject your project proposal directly because there is some value to the project, but we are not going to pass it as well”* (int. 8).

At the same time, many applicants also spoke of capacity constraints in the form of lack of technical and proposal writing expertise (int. 1, 2, 3, 4, 5, 7, 9, 11), which is likely to affect the quality of their revisions: *“When you develop your concept note it has to meet international requirements and we don't*

have the technical expertise for that. The climate change field as a whole is still relatively new in [the region].” (int. 4). The lack of proposal writing expertise was echoed by a GCF staff who explained that issues often arise over lack of a clear Theory of Change (ToC) in proposals (int. 13). The ToC must explain how project inputs are expected to contribute to the intended outcomes, i.e. how the adaptation project will reduce the vulnerability of the beneficiary population. The ToC is a crucial part of the process because it helps ensure that GCF resources are channelled towards effective adaptation projects (int. 13, 14) and to avoid funding standard development projects (int. 13). A GCF staff argued that they try to be strict with the criteria and procedures that they follow: *“to avoid criticism by kind of just funding not good projects and being careful with where the resources are diverted, they have a really rigorous, long, detailed process, and just inevitably, it's difficult to follow”* (int. 14). As a result of this, they added, some issues may go unnoticed in the initial feedback round and only be noticed later (int. 14). This means that the project must go through another round of revisions. The GCF has published thorough guidelines and manuals for proposal writing to support applicants in meeting the criteria (int. 1, 14):

“it's a combination of not only some of the things that GCF needs to do, but also some of the things that the accredited entities developing the concepts need to do. [...]. If you follow the guidance of the guidebooks and the tools, it reduces the amount of back and forth [...].” (int. 1)

According to its governing instrument, the GCF supports “project-based and programmatic approaches in accordance with climate change strategies and plans such as [...] national adaptation plans (NAPs) and other related activities” (GCF, 2011, para. 36). A programmatic approach refers to projects that are strategically linked through common objectives or an overarching vision. GCF’s policy on programmatic approaches states that the latter have several advantages over stand-alone projects, including broader and more sustainable results, reduced transaction costs and enhanced scope for scaling up action (GCF, 2020a). One informant, from a relatively resourceful SIDS, believed that their country had been successful with their GCF applications exactly because the country has a programmatic approach in all their climate adaptation projects (int. 5). He suggested that many countries struggle to access GCF funds because they do not pursue a holistic programmatic approach and because they do not design their projects according to GCF criteria from the beginning:

“You need to have a project that fits into an overall program, of which you are looking to the GCF to finance the component that fits the GCF criteria, rather than doing what so many people like to do, which is to have a project that they then look to see how they can fit to the GCF criteria.” (int. 5)

Conversely, another informant, from a less affluent SIDS, explained that resource and data constraints prevent them from conducting needs assessments in all the sectors identified in their NAP as being climate-vulnerable (int. 6). Consequently, a lot of feedback they received related to their ToC, requesting them to better link their activities across different sectors (int. 6). This suggests that countries with less resources are more disadvantaged in developing proposals. It also suggests that some issues may be prevented if countries were more mindful of the GCF criteria from the initial project design phase, although this may be linked to countries' lack of technical expertise.

While GCF has published an indicative timeline for how long proposals should take to pass from the Secretariat to the ITAP, and from the ITAP to the Board (GCF, 2023b), we were unable to find any published deadlines concerning the internal review process in the Secretariat. Informants stated that the Secretariat is committed to provide feedback within two to three weeks (int. 8, 12). The feedback sheets we collected show Secretariat response times varying between two weeks and maximum two months. In the worst cases, informants described the Secretariat taking several months (int. 1, 3, 5, 8, 12, 14) and in one case even over a year (int. 1) to respond to a review. This was argued to result from capacity issues in GCF combined with a rigorous evaluation process (4, 14).

The Secretariat gives applicants a deadline to return their revised versions. The deadline may vary according to internal processes in GCF, e.g. if they want to include the proposal in a certain committee meeting (int. 3) and can be as short as 48 hours (int. 3, 5). One informant expressed frustration with the discrepancy between response time for applicants and the Secretariat: *"they're coming back to you for a response in 48 hours after they've taken however long they want"* (int. 5). While applicants try to meet the given deadlines, they are challenged by capacity issues such as lack of staff and technical expertise (int. 2, 4, 5, 7, 9, 11) and the need to coordinate among different stakeholders (int. 1, 2, 4, 5). Language is also a challenge, particularly for Francophone countries, since applications and communication with the Secretariat are in English (int. 3, 7, 12). The quality of the feedback also influences response time: *"if the questions are pointed and they are sharp, it's easy. [...]. But if the questions are not pointed, then you still want to write back to ask, what exactly do you want on this?"* (int. 3). Informant 3 further added that when the Secretariat takes a long time to provide feedback, it does not necessarily result in a higher quality of feedback.

In some cases, the Secretariat asks applicants to conduct a feasibility study (int. 4, 12). This results in a long delay while the feasibility study is being conducted. One applicant said that they had been asked to conduct a feasibility study, and by the time they were ready to resubmit their project the format for proposals had changed (int. 6). Therefore, they had to update their whole proposal before they could resubmit, adding more to the delay.

Finally, several informants felt that GCF staff do not understand the conditions in their countries, which affects their abilities to evaluate proposals:

“Some people [in GCF] just simply do not understand SIDS’ needs. They come from places that are so vast that they have no concept of what it is like to operate in a SIDS. They can’t see at your resolution.” (int. 5)

Applicants argued that it could contribute to faster approval process if GCF staff had a better understanding of the local conditions and circumstances in the countries they evaluate projects for (int. 2, 5). Therefore, they were pushing for GCF staff to visit their region and eventually open a regional office. The latter would simultaneously address the communication challenges arising from time zone differences between the applicant countries and the GCF office in South Korea²³.

4.2.2 Patterns in feedback sheets

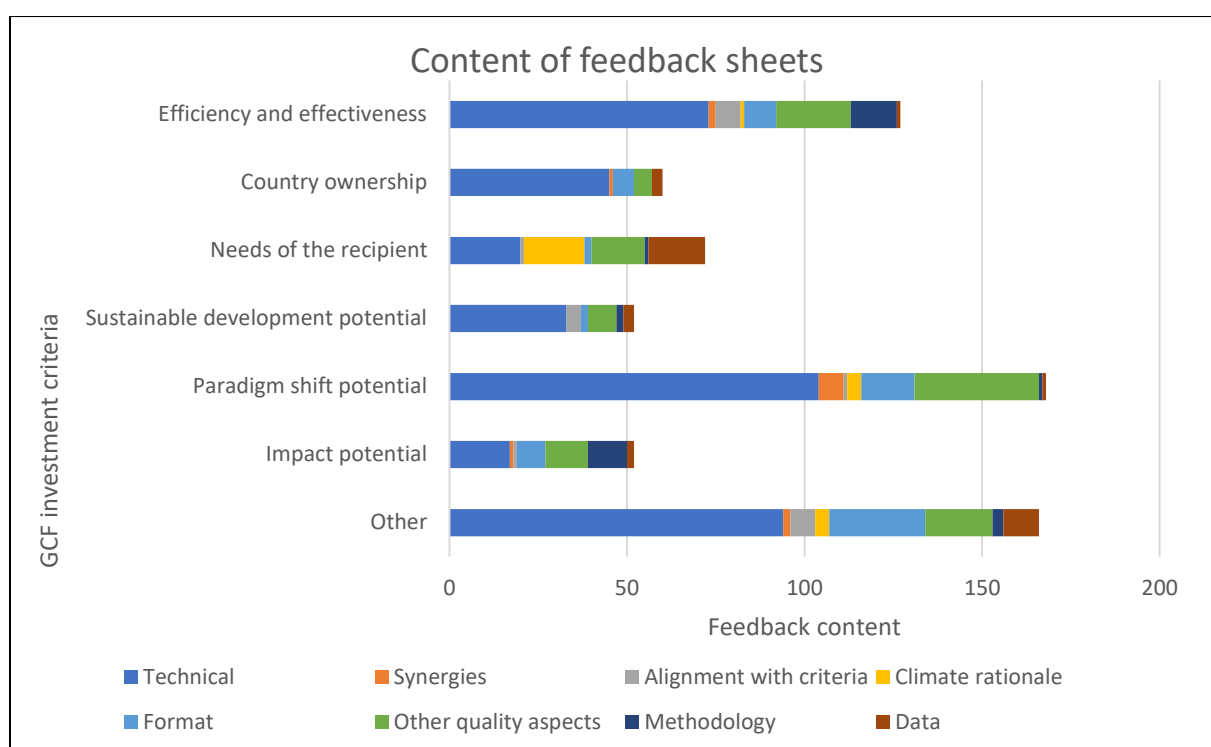
In this section we examine how the issues expressed in the interviews play out in specific proposals. Informants frequently mentioned the large volume of feedback they receive as a factor in the delays (Int. 3, 5, 6, 10). Table 3.4 shows the number of comments in each feedback sheet. The number of comments varied from 14 to 162. For project 3 (feedback 5+6) the number of comments increased in the subsequent feedback round. Figure 3.3 shows the amount of comments according to the official GCF investment criteria and the content of the comments.

²³ Recent GCF Board meetings have discussed regionalisation of the fund and GCF furthermore commissioned a feasibility study on options for establishing more regional presence (GCF, 2023a).

Table 3.4: Comments in individual feedback sheets

Feedback sheet Code system	P1 Feedback 1	P1 Feedback 2	P2 Feedback 3	P2 Feedback 4	P3 Feedback 5	P3 Feedback 6	P4 Feedback 7	P5 Feedback 8	P6 Feedback 9
Count	32	30	57	14	45	120	56	131	162
Quality									
- Technical	11	17	32	5	21	73	40	80	90
- Synergies	1	0	2	1	1	1	2	2	3
- Alignment with criteria	3	1	1	0	6	3	1	4	3
- Climate rationale	1	2	6	0	3	3	2	3	6
- Format	1	1	7	4	5	14	2	15	19
- Other quality aspects	10	4	9	4	11	16	9	18	29
- Methodology	4	3	1	0	3	1	0	12	7
- Data	4	0	4	0	0	8	4	3	11
GCF investment framework									
- Impact potential	3	2	8	1	1	12	3	10	13
- Paradigm shift potential	10	6	17	2	15	33	19	33	33
- Sustainable development potential	5	3	5	1	1	7	4	12	8
- Needs of the recipient	5	7	8	1	3	17	8	8	12
- Country ownership	1	2	12	1	5	8	6	10	14

Figure 3.3: Feedback by investment criteria and content



In terms of investment criteria, most of the comments concerned the ‘Paradigm shift potential’ (168 comments), which was a fairly consistent pattern across all the proposals. Fulfilling the investment criteria ‘Paradigm shift potential’ requires applicants to formulate a ToC. ‘Paradigm shift potential’ mostly received technical questions, while the second most common feedback concerned ‘Other quality aspects’ (remarks on the quality of writing and argumentation in the application). The latter suggests that applicants struggle more to argue for their projects’ paradigm shift relevance than other aspects. Overall, this supports the findings from the interviews, as informants often highlighted the ToC as a challenge in the approval process.

‘Efficiency and effectiveness’ received the second highest number of comments (117 comments), but mostly due to feedback sheets 8 and 9. Both feedback sheets contained a high number of technical questions on the projects’ budgets. ‘Needs of the recipient’ received the third highest number of comments (69 comments). The comments are more mixed than for the previous criteria, but mostly concern climate rationale, data and other quality aspects. This reflects the emphasis expressed by GCF staff in the interviews on the need to distinguish between climate and development projects. The criterion that received the lowest number of overall comments was ‘Sustainable development potential’. This is perhaps unsurprising since countries can refer to the Sustainable Development Goals (SDGs).

5. Discussion

This section reflects on the implications of our results for procedural justice in GCF. We structure the discussion according to the five elements of procedural justice, as proposed in our theoretical framework: consistency, lack of bias, accuracy, representativeness and correctability.

5.1 Consistency

According to the consistency rule, allocation procedures should be consistent across persons and over time. Applicants described that evaluators often request them to provide information that does not fit within the required format for proposals, reflecting inconsistency in GCF's expectations to applicants. Applicants also reported inconsistent feedback from different evaluators in the GCF. This is likely a result of a high staff turnover, meaning that the evaluators change over time, and capacity constraints in the fund, resulting in insufficient coordination between evaluators.

Additionally, applicants described that they often received repetitive feedback from different evaluators, probably for the same reasons as described above. According to Leventhal's (1980) framework, repetitive feedback does not constitute a procedural issue; on the contrary, it is highly consistent. However, applicants perceived it negatively because it constitutes additional feedback that they must process, without improving the content of the proposal. This contributes to the time that the proposal spends in the pipeline while also placing an unnecessary burden on applicants. The challenge posed by repetitive feedback suggests a limitation of the theoretical framework. A potential solution to this limitation could be to add an efficiency element to the framework. This would signal that feedback is only justified when it contributes to improving the quality of the proposal.

5.2 Lack of bias

Lack of bias means that the allocation procedures must avoid self-interest and devotion to doctrinaire views. It is plausible that inconsistencies in the feedback may be explained by personal biases among evaluators, but we do not have sufficient evidence to make any claims regarding this. In theory, having different people review each proposal, as is often the case in GCF, should reduce the risk of evaluator bias. Nothing in the results suggest that this is the reason for changing evaluators in the GCF, instead this procedure seems to be the result of a high staff turnover. Moreover, the change in evaluators between feedback rounds has inadvertent effects, such as repetitive or even conflicting comments, which conflicts with the consistency criterion. This could perhaps be solved through better internal coordination in the Secretariat, but that is currently hindered by capacity constraints (4, 14).

5.3 Accuracy

The accuracy rule states that decisions must be based on good information and informed opinion. The GCF needs to make sure that the money is spent well and hence require a lot of information about the projects (int. 4, 13, 14). One GCF staff emphasised that the fund is not intended to support regular development projects (int. 13). To avoid this, he added, it is important that applicants formulate a good climate rationale for their projects (int. 13). Furthermore, the GCF needs a rigorous approval process to prevent criticism of how it funds projects (int. 14). The interviews revealed tensions over some of the GCF's requests, especially requests for data and improved ToCs:

"we were really scratching our heads, saying that if you all in the room agree about climate finance, agree about the needs in [the region], why do we need to jump through so many requirements and check box?" (int. 4)

Applicants felt that some of the requests were unfeasible or unnecessary, claiming that the data is often not available and that the ToC is too academic and not representative of reality on the ground. It is particularly challenging for the more resource-constrained countries, as a good ToC requires need assessments across different sectors. As such, the requests were perceived as unjustifiably contributing to delays. GCF staff on the other hand claimed that they do not ask for data that does not exist, and that the ToC is necessary to ensure that they fund good projects.

Based on this, it seems that GCF's attempts to make accurate decisions (thus satisfying the accuracy criterion) contributes to perceptions of procedural injustice among applicants. We suggest two explanations for this tension. Firstly, it could be that accuracy has different meanings for the GCF and applicants. For the GCF, accuracy requires a perfect or complete knowledge base from which to make decisions; for applicants, accuracy means a realistic representation of reality which is messy and perhaps lacks some information. Climate adaptation efforts face a range of (at times unexpected) economic, institutional and attitudinal barriers, and policy actors must navigate around those barriers, often in circuitous ways, to make progress (Moser and Ekstrom, 2012; Moser and Boykoff, 2013). ToCs are highly stylised representations of reality that do not necessarily capture this complexity. Both interpretations of accuracy, as perfect knowledge or a realistic representation, are valid but they carry different implications for the approval process. This highlights another limitation of our theoretical framework, as it does not acknowledge different interpretations of the rules for procedural justice. From the GCF's perspective, a solution could be to improve applicant's technical expertise to enhance their ability to write applications that fit within the GCF requirements. From the applicants' perspective, a solution could be to widen the margin of error that is accepted in the approval process. Additionally, the climate data requirements could be lifted or diminished for countries such as SIDS, LDCs and African states that are already acknowledged as particularly vulnerable to climate change. As suggested by several informants, increased regionalisation of the fund could also contribute to a better

understanding of the local conditions and circumstances by evaluators, thereby improving the feedback process with the Secretariat.

A second explanation for the tension related to the accuracy criterion could be that the standard for how to make 'accurate' decisions is set too high in the GCF, thus undermining representativeness. We continue this discussion in the following section on representativeness.

5.4 Representativeness

Representativeness is the idea that the allocation process must reflect the basic concerns, values and outlook of important subgroups in the affected population - in this case the applicants to the GCF. GCF's attempts to make accurate decisions could undermine representativeness, as the requirement for a ToC diminishes applicants' outlook related to adaptation planning and implementation. Moreover, the complex process causes delays, which can complicate adaptation efforts in recipient countries. Recipients require a quick dispersal of funds to implement adaptation projects before their circumstances change and render their projects less effective. Hence, the complex process does not align with the concerns of applicants. This reflects a tension between the accuracy and representativeness rules in Leventhal's (1980) procedural justice framework. Leventhal acknowledges that the elements of procedural justice may vary between different contexts and that not all elements are relevant in every situation. It seems that both accuracy and representativeness are relevant for actors' perceptions of the GCF approval process, but that the meaning and weighting of these elements vary between different actors. The efficiency rule suggested above could also address applicant's concerns over a long and complex process.

5.5 Correctability

According to the correctability rule, the allocation process must include opportunities to reverse and modify decisions, however this does not seem to exist at the Secretariat level. An applicant interpreted difficult comments from the Secretariat as a tacit rejection. Regardless of whether this is the intention from the Secretariat or not, it signals a problem in the process. Applicants can discuss their feedback with the Secretariat but there is no official mechanism to submit complaints. This is particularly problematic if the Secretariat is indeed giving tacit rejections.

"it may be our fault that we did not write a good project proposal. [...] In that case you have to come back and ask me [...] what do you mean by this particular project activity or this particular statement in that particular project design document? But what GCF did was, GCF rejected the project with comments which made no sense and then it says that there is no recourse to an appeal." (int. 8)

6. Conclusion

According to the Paris Agreement and GCF's own objectives, climate finance should be balanced between mitigation and adaptation and allocation for adaptation finance should prioritise the most climate vulnerable countries. The latter are defined by the Paris Agreement to include the SIDS and LDCs. Although GCF (nearly) meets its allocation target, the approval process is characterised by significant delays. This study shows that projects spend a mean of 480 days in the pipeline, and that delays particularly affect adaptation projects and projects in SIDS and LDCs. This is problematic because circumstances in recipient countries can change over time rendering adaptation projects less effective. Through interviews and analysis of GCF feedback on proposals, we investigated the causes of the delays and whether they reflect procedural justice issues in the fund's approval process.

Our results indicate problems with consistency in GCF's feedback to applicants. This could potentially be resolved by addressing the high staff turnover in the GCF and ensuring better coordination among evaluators. The results furthermore point to tensions around how GCF staff and applicants approach accuracy in the approval process. For GCF accuracy requires a rigorous process with thorough documentation and a clear ToC. Applicants find the ToC too abstract and wish for an application format that is more representative of reality on the ground. Furthermore, particularly applicants from SIDS argued that the data required from the GCF often is not available for their countries. Overall, applicants felt that GCF staff do not understand the circumstances in their countries, which creates barriers in the approval process. More regional presence of the GCF could contribute to bridging the knowledge gap between GCF evaluators and the applicants. The results also suggest that GCF's standard for accurate decision-making may be set too high, thereby undermining representativeness of applicant's concerns and outlook in the approval process. Finally, there is no correctability mechanism in the fund, which is particularly problematic given the argument by Kuhl & Shinn (2022) that the political nature of the fund may lead to proposals being stalled. Overall, the results indicate that delays may be partly caused by procedural justice issues in the fund, and partly by projects not fulfilling the specific requirements of the fund. Opinions are divided between GCF and applicants over whether these requirements are appropriate. This should be resolved through a closer dialogue or potentially through more regional representation by GCF to ensure that the fund's requirements align with countries' needs and circumstances.

Our study furthermore points to limitations in Leventhal's (1980) procedural justice framework. Firstly, repetitive elements in the approval process are perceived negatively by applicants because they constitute an unnecessary work burden and contribute to delays. This is not currently captured by Leventhal's rules for procedural justice but could be addressed by adding an efficiency rule to the framework. The framework also does not account for the fact that actors may attach different

meanings and weight to each element, in this case accuracy and representativeness. While Leventhal acknowledges that the importance of each rule may differ between different processes, we show that it may also differ within one single process.

While this analysis has only considered the GCF, there is reason to assume that other sources of finance display similar patterns. Compared to other sources of finance, including bilateral donors, philanthropies, and the private sector, the GCF decision-making process is arguably more transparent. This study points to several areas for further research. Firstly, studies could reproduce our analysis on a larger number of GCF feedback sheets or on other climate funds. They could also examine biases among evaluators in GCF or conduct a normative assessment on the ethicality of GCF's procedures. Finally, studies could investigate if there are systematic differences between those projects that enter the pipeline but are "abandoned" and those that are approved.

Managing adaptation finance in SIDS: A study of subnational allocation criteria and procedures in Seychelles

Clara B. Gurreød

The international climate regime considers Small Island Developing States (SIDS) priority recipients for international adaptation finance due to their high vulnerability to climate change. This objective neglects two important aspects: firstly, vulnerability is unevenly distributed at the subnational level. Therefore, protecting the most vulnerable requires not only providing finance to SIDS, but also ensuring that it reaches the most vulnerable people and areas within them. Secondly, vulnerability is a complex and context-dependent phenomenon that may differ between and even within communities. Studies on subnational adaptation finance tend to apply pre-defined indicators of need and treat national governments as unitary actors. However, governments consist of a web of different entities and individuals with potentially differing perceptions and interests. To explain subnational allocation, we need to understand it better from a recipient country perspective, including who makes the decisions and who are perceived as the most vulnerable. This paper examines priorities and procedures shaping subnational adaptation finance allocation in Seychelles, through interviews and analysis of government reports. The findings indicate inconsistent perceptions between and within public entities of who are those particularly vulnerable. Actors prioritise projects protecting the largest number of people and the economy, which they perceive as a way to protect the most vulnerable. Whether this is plausible must be evaluated in the context of Seychelles' fragile and undiversified economy. Finally, public entities in Seychelles have uneven decision-making power and capacity constraints, resulting in certain sectors being prioritised over others for adaptation finance.

1. Introduction

Adaptation finance is a subset of climate finance that refers to all financial resources funding actions with an adaptation objective (Peterson et al., 2015). Parties to the UN Framework Convention on

Climate Change (UNFCCC) and climate justice scholars agree that the most vulnerable countries must be prioritised in the allocation of public international adaptation finance (Farber, 2008; Gardiner, 2010; Baatz, 2018). In line with this, the Paris Agreement mentions Small Island Developing States (SIDS) and Least Developed Countries (LDCs) as priority recipients for adaptation finance due to their high vulnerability to climate change and significant capacity constraints (UNFCCC, 2015, Art. 9.4).

The objective to prioritise the most vulnerable countries, however, neglects two important aspects: firstly, vulnerability is not distributed evenly at the subnational level. Hence, a commitment to prioritising the most vulnerable requires not only providing finance to SIDS and LDCs, but also ensuring that subnational allocation processes prioritise the most vulnerable groups within them (Barrett, 2013). Secondly, vulnerability is a complex and context-dependent phenomenon, making it difficult to measure and compare (Intergovernmental Panel on Climate Change [IPCC], 2022). Indeed, both vulnerability and perceptions of vulnerability may vary between and within countries (IPCC, 2022; Thomas et al., 2019).

While there is a substantial literature on the international allocation of adaptation finance, subnational allocation has received less attention. Studies on adaptation finance and general development aid tend to take a top-down approach, assessing allocation according to pre-defined indicators of need and neglecting the recipient country perspective (Morris and Wodon, 2003; Reinikka and Svensson, 2004; Barrett, 2014). It furthermore contains a polarised narrative on recipient control dominated by 'good' and 'bad' governments. In electoral democracies, recipient control is argued to implicitly favour allocation to the most vulnerable because national governments have a better understanding of national needs (Duus-Otterström, 2016). Contrastingly, in countries with poorer governance, allocation practices could end up serving the political and economic interests of powerful elites (Berlin et al., 2023; Francken et al., 2009; Hodler & Raschky, 2014). Both narratives treat national governments as unitary actors. But governments consist of a web of different entities and individuals with potentially differing perceptions and interests. To explain subnational allocation, we need to understand it better from a recipient country perspective, including who makes the decisions and who are perceived as the most vulnerable.

This article seeks an understanding of subnational public adaptation finance through an explorative case-study of allocation procedures and priorities in a specific SIDS: Seychelles. I examine how vulnerability is constructed by subnational actors and whether it informs their decision-making on adaptation finance. This involves mapping out the country's fragmented adaptation finance landscape and identifying public actors' adaptation priorities. To explore what shapes subnational allocation, I rely on content analysis of government documents and interviews with political decision-makers, public administrators and experts in Seychelles.

The rest of the article is organised as follows: **Section 2** discusses the literature on vulnerability and adaptation finance allocation and explains the case selection. **Section 3** describes my data collection and analysis methods. **Section 4** presents my results, starting with a discussion of climate change impacts and governance in Seychelles. Subsequently, I describe the country's adaptation finance landscape and identify priorities and other factors that shape allocation. **Section 5** summarises my findings and reflects on wider implications of my research. The findings show that public actors in Seychelles have inconsistent perceptions of who are most vulnerable to climate change and uneven access to adaptation funds. Based on this, I argue that to understand subnational allocation we need a more nuanced view of recipient governments as non-unitary actors. Such a nuanced understanding is required even when dealing with small states, because smallness does not exclude uneven development.

2. Literature

This section discusses the literature on adaptation finance allocation, starting with the commitment to prioritise the most vulnerable and the challenges it raises. Secondly, I introduce the literature on subnational allocation of adaptation finance, which generally focuses on three key determinants: climate vulnerability, donor utility and government interest. This includes a brief reflection on the need to understand allocation better from a recipient country perspective. Based on this, I discuss what we know from the literature about the characteristics and vulnerabilities of SIDS, and introduce my case study; Seychelles.

2.1 Adaptation finance and vulnerability

Climate change is characterised by an unequal distribution of benefits and burdens. While the lion's share of historical emissions come from industrialised countries of the Global North, the effects of climate change are disproportionately felt in the Global South (Schalatek, 2011). Dealing with climate change requires adaptation measures, with the aim to avert or minimise its adverse effects (Rosales, 2019). Such adaptation measures can be costly, and climate justice scholars contend that the Global North ought to contribute to the costs of adaptation in the Global South (Farber, 2008; Gardiner, 2010; Baatz, 2018). Mirroring this consensus, Global North Parties to the UNFCCC agreed to mobilise adaptation finance for the Global South (UNFCCC, 2009, 2015b). Yet current mobilisation efforts are insufficient to meet needs. According to United Nations Environment Programme (UNEP) (2022), annual adaptation costs in the Global South are currently around USD 71 billion, and will increase to USD 160-340 billion by 2030. Meanwhile, adaptation finance providers reported mobilising USD 28.6 billion in 2020 for adaptation, and their efforts are unlikely to increase sufficiently to close the finance gap (UNEP, 2022).

Unlike mitigation projects, which have universal benefits, adaptation projects mainly benefit the communities and regions in which they are implemented (Rübbelke, 2011). Therefore, the Paris Agreement affirms that adaptation finance should prioritise “particularly vulnerable” countries, including SIDS and LDCs (UNFCCC, 2015a). However, this raises questions regarding how and at which scale we think about vulnerability. Firstly, it implies that vulnerability is measurable at the national level. However, vulnerability is distributed unevenly within countries (IPCC, 2022). A commitment to protecting the most vulnerable therefore requires that funding reaches not only the most vulnerable countries, but also the most vulnerable groups or areas within them (Barrett, 2012).

Secondly, vulnerability is a complex and context-dependent phenomenon, with no universally agreed indicators to measure or compare it (IPCC, 2022). It is defined by IPCC (2022a, p. 5) as “the propensity or predisposition to be adversely affected and encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt”. Certain social characteristics tend to influence vulnerability, including gender, race, age, social class and income (Eriksen et al., 2015). Perceptions of vulnerability may vary between and within countries because culture informs how we perceive our environment, including perceptions of risk (Thomas *et al.*, 2019). Cultures are systems of meaning and patterned behaviour shared between members of social groups (Thomas *et al.*, 2019). In addition to governing our perceptions of vulnerability, it also governs how we respond to risk (Adger et al., 2009; Rühlemann & Jordan, 2021). As individuals participate in multiple cultural frames simultaneously, perceptions and responses can differ between members of the same community (Thomas et al., 2019). Rühlemann & Jordan (2021) add that the existence of different sub-narratives on vulnerability among social groups or organisations can lead to inaction or ineffective action. A commitment to prioritising the most vulnerable therefore raises questions about who the most vulnerable are (perceived to be), who makes the allocation decisions and to what extent vulnerability influences their decisions.

2.2 Theories on allocation

While there exists a substantial literature on the international allocation of adaptation finance (e.g. Betzold & Weiler, 2018; Noltze & Rauschenbach, 2019; Robertsen et al., 2015; Saunders, 2019), the literature on subnational allocation is more limited. Allocation to countries is primarily shaped by recipient need, recipient merit and donor interest, with population size and path dependency also playing a role (Betzold & Weiler, 2018). These factors are to some extent echoed at the subnational level. Drawing on studies on adaptation finance and general resource allocation, Barrett (2014) identifies three subnational key determinants: *climate vulnerability*, *donor utility* and *government interest*.

Climate vulnerability, an expression of recipient need, is, as previously discussed, a complex concept. Subnational allocation of adaptation finance is often shaped by the same social, economic and political processes contributing to vulnerability (Colenbrander et al., 2018). Evidence from natural disaster relief in Honduras shows that higher asset losses increased the likelihood of receiving emergency aid, but did not affect the amount of aid received (Morris and Wodon, 2003). Barrett (2014) finds that domestic adaptation finance in Malawi is negatively correlated to socioeconomic vulnerability and positively correlated to physical vulnerability. The negative correlation to socioeconomic vulnerability could occur because people with more resources are better able to operationalise funds into productive use, and thus are favoured in allocation (Reinikka and Svensson, 2004; Barrett, 2014). These findings highlight the difficulty of assessing climate vulnerability as a determinant for allocation without agreed indicators.

Donor utility (also known as path dependency) means that aid is more likely to target areas where donors have invested in institutional capacity such as personnel, offices, infrastructure and institutional reputation (Clay, Molla and Habtewold, 1999). Donor utility is a stronger determinant for aid delivered by aid agencies rather than national governments (Francken, Minten and Swinnen, 2009), implying that to understand allocation we must consider who makes the decisions.

The third determinant is *government interest*. National governments are important in the allocation of domestic and international adaptation finance (Barrett, 2012), but the literature reflects a polarised narrative on their role. On one hand, national governments are argued to have a better understanding of national needs, leading to better and more effective spending of resources (Duus-Otterström, 2016). This is especially true in electoral democracies, where national priorities are collectively chosen or authorised (Duus-Otterström, 2016). On the other hand, allocation by national governments can also favour co-partisan and/or co-ethnic areas (Sharp, 1997; Posner, 2005; Francken, Minten and Swinnen, 2009; Hodler and Raschky, 2014; Jablonski, 2014; Berlin, Desai and Olofsgård, 2023). High media access and voter turnout may affect this, by allowing citizens to monitor government actions and hold them accountable (Besley and Burgess, 2001; Francken, Minten and Swinnen, 2009). Allocation favouring politically powerful groups can lead to maladaptation if benefits of adaptation projects are skewed towards local elites at the expense of marginalised groups (Thomas *et al.*, 2019; Eriksen *et al.*, 2021). Such measures increase social inequalities, rather than support the most vulnerable (Thomas *et al.*, 2019; Eriksen *et al.*, 2021). Nightingale (2017) stresses that the authority associated with controlling a resource may be an end goal in itself, regardless of one's level of vulnerability, by signalling social status and prestige.

The studies discussed above offer differing evidence on what determines the allocation of adaptation finance. Most of them explore subnational allocation from a top-down perspective and neglect the

recipient perspective, for example, by choosing vulnerability indicators based on the literature rather than local points of view. Furthermore, the top-down approach treats governments as unitary actors. This creates a polarised and simplified narrative in which donor utility is juxtaposed with government interest, and interests of ‘good’ governments are juxtaposed with those of ‘bad’ governments. However, governments consist of multiple entities and factions, with potentially differing interests and objectives. Indeed, climate adaptation is subject to multi-level governance at the national level and shaped by a multitude of decisions and actors (IPCC, 2007; Etongo and Gill, 2022). Recalling the earlier discussion of vulnerability perceptions, differing organisational cultures and objectives across actors can result in diverse sub-narratives on vulnerability that shape actors’ responses. In a study of bilateral adaptation finance, Peterson & Skovgaard (2019) find that allocation is shaped by which donor ministry is charged with selecting recipients. Development ministries favour poor recipient countries while environmental ministries favour allies in the UNFCCC (Peterson & Skovgaard, 2019). It is plausible that similar intra-government dynamics influence subnational allocation, yet this hypothesis is underexplored in the literature.

2.3 SIDS context and case selection

This paper seeks to understand subnational allocation of adaptation finance from a recipient country perspective, using the Indian Ocean SIDS Seychelles as a case study. In this section, I discuss SIDS’ characteristics and differences as context for the subnational allocation of adaptation finance. This is followed by a brief introduction to Seychelles, highlighting why it is an interesting case study for this purpose.

SIDS are a group of states distributed across the Caribbean Sea and the Atlantic, Indian and Pacific Oceans (Robinson, 2018). They are island and coastal states, typically with small populations, small and undiversified economies and a high exposure to external environmental and economic shocks (Briguglio, 1995; UN-OHRLS, 2015; World Bank, 2016; Sealey-Huggins, 2017; Kelman *et al.*, 2019). Due to their shared characteristics, SIDS are often treated as a homogenous group in the literature. But despite their similarities, there is also a great deal of diversity between and within SIDS. They differ in terms of physical and demographic characteristics such as size, income and language (Julca and Paddison, 2010; IPCC, 2014b). Furthermore, their social institutions vary, giving people different opportunities to adapt to climate impacts (Baldacchino and Kelman, 2014). Within SIDS, vulnerability to climate change can vary according to such factors as physical environment, housing and socioeconomic status, age and gender (IPCC, 2022).

Thus far, the adaptation finance literature has only considered SIDS in regards to their share of international adaptation finance (Betzold & Weiler, 2017; Carty *et al.*, 2020; Persson & Remling, 2014;

Robinson & Dornan, 2017; SEI, 2017; Wilkinson et al., 2023). SIDS receive less total adaptation finance than other, larger countries, but tend to receive a higher amount per capita (Betzold & Weiler, 2017; Robinson & Dornan, 2017). Given their small populations, adaptation measures in SIDS are also more expensive per capita than in larger countries (Briguglio, 1995). As previously discussed, a multiscalar approach requires that we also assess whether vulnerability influences subnational allocation decisions. Moreover, we need to assess this from a recipient country perspective to accurately reflect the role of the government and how vulnerability is perceived within the country.

To address this gap, I explore the priorities and procedures that shape subnational allocation of public adaptation finance in Seychelles. Seychelles constitutes an interesting case for two main reasons. The country scores well on governance indicators such as level of democracy (Papada *et al.*, 2023), which is associated with public good provision (Deacon, 2009). Similarly, they have low perceived public sector corruption (Transparency International, 2022), meaning that funds are less likely to be misused (Transparency International, 2018). Secondly, the World Bank (2023) defines Seychelles as a high-income country, which gives more fiscal space and flexibility in spending choices (Heller, 2005). It also makes it ineligible for Official Development Assistance (ODA) (OECD, 2017). In the absence of bilateral donors, public adaptation finance comes from multilateral sources and the domestic budget. The study assumes a significant influence by national governmental actors on allocation of domestic and multilateral funding (Barrett, 2012), and hence that subnational allocation should be more closely aligned with national priorities (Duus-Otterström, 2016). Thus, if vulnerability influences subnational adaptation finance allocation decisions in SIDS, we should see it in Seychelles.

3. Methodology

To examine the priorities and procedures shaping subnational allocation in Seychelles, I conducted a case study on the allocation process for public adaptation finance. Climate adaptation and general development objectives are closely interlinked in SIDS (Leal Filho et al., 2020; Scobie, 2019), hence the distinction between adaptation and development finance can be blurry. I follow Peterson et al.'s (2015) definition of adaptation finance as all financial resources funding actions with an adaptation objective. Below I explain my methods, data sources and the coding framework used for my analysis.

Adaptation finance in Seychelles comes from a variety of sources and is not always clearly labelled in domestic budgets. Therefore, this study is unable to conduct a quantitative analysis of adaptation finance flows in Seychelles. Instead, it identifies priorities and procedures that shape the flow of adaptation finance. To this end, I relied on qualitative methods which were better suited to my aim of exploring vulnerability perceptions, adaptation priorities and allocation procedures. These methods included document analysis, interviews and participant observation.

Firstly, I gathered and analysed adaptation and development plans produced by the Seychelles government (see appendix C.1). The document analysis was intended to identify official adaptation priorities, narratives on vulnerability and public actors involved in adaptation. Secondly, I conducted 17 interviews with 26 decision-makers, public administrators and other experts across different governance bodies and sectors during a fieldtrip to Seychelles in March 2022. The public entities included the Ministries of Agriculture, Climate Change and Environment (MACCE), Finance, Health, and Local Government respectively (see table 4.1). Inspired by Rühlemann & Jordan (2021), the analysis was guided by the hypothesis that there may exist different sub-narratives on vulnerability among different actors that shape adaptation responses.

Table 4.1: Anonymised table of informants

Affiliation	Number(s)
Public administration	1, 2*, 3, 4, 5, 6*, 7*, 8
Government	9
Government / Non-governmental	10*
Private consultant	11, 12, 13
Other	14, 15
Non-governmental	16*, 17

* = more than one informant took part in the interview.

The interviews were semi-structured and focused on three key themes: 1) procedures for allocating adaptation finance; 2) perceptions of vulnerability; and 3) adaptation priorities. The document analysis revealed a list of public entities with the strongest climate links, which I targeted for my interviews (see appendix C.2). During the fieldtrip, I also collected data through participant observation at a two-day workshop on local adaptation priorities. The workshop was attended by 48 local stakeholders representing a wide range of public agencies, private consultants, researchers and non-profit organisations. To protect informants' identities, I refer to them only by affiliation and randomly assigned gender.

4. Results and discussion

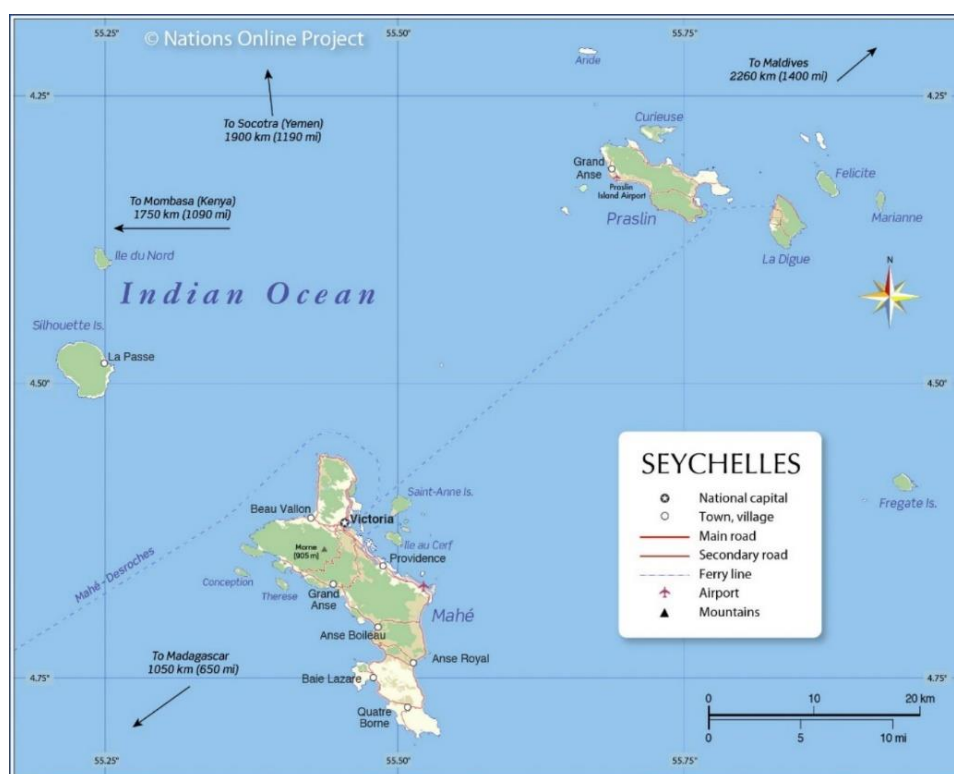
This section introduces the findings from my fieldwork. I first introduce climate change impacts and governance structures in Seychelles, offering an important context for subsequent discussions. Secondly, I describe the adaptation finance landscape in Seychelles, focusing on the main sources of adaptation finance and actors involved in decision-making. Based on this, I identify priorities from

various actors who contribute to shaping allocation, including a discussion of how they construct vulnerability. Finally, I reflect on issues related to uneven power and capacity of actors and how these contribute to shaping adaptation finance allocation.

4.1 Climate change and governance in Seychelles

Seychelles is a remote Indian Ocean archipelago, 1,750km east of Kenya. It consists of 115 islands and is home to a resident population of around 100,500 (Republic of Seychelles, 2018a; National Bureau of Statistics, 2022). Most of the population live on the three main inner islands of Mahé (88%), Praslin and La Digue (11%) (National Bureau of Statistics, 2022) (fig. 4.1).

Figure 4.1: Map of the main islands of Seychelles (Nations Online, no date)



Mahé houses the capital city Victoria and most of Seychelles' economic activities and critical infrastructure, such as the airport and seaport. More than 90% of the population and economic activities are concentrated in the narrow, low-lying coastal strip, at an average elevation of 2m above sea-level, making them extremely vulnerable to sea-level rise, storm surges and coastal erosion (Seychelles National Climate Change Committee, 2009). Other significant climate change-related threats include: changes in rainfall patterns causing flooding, landslides and extended period of droughts; and changes in sea temperature and acidity, which damage marine ecosystems (Republic of Seychelles, 2015).

Seychelles' economy relies heavily on tourism and fisheries, as well as food and fuel imports (Republic of Seychelles, 2018a). Tourism provides around 70% of foreign exchange and employs 23% of the labour force (Republic of Seychelles, 2015; National Bureau of Statistics, 2023). Meanwhile, the fishing industry constitutes more than 80% of Seychelles' export value and 10% of foreign exchange (Republic of Seychelles, 2015). Seychelles graduated from the OECD DAC list of ODA recipients in 2018 when they reached high-income status (OECD, 2017). They are therefore ineligible for bilateral ODA, but they remain eligible for multilateral funds. Despite their unemployment level of only 3% (IMF, 2023), Seychelles is one of the most unequal countries in the world, with 40% of the population living in poverty due to the high cost of living (Africa Research Bulletin, 2020).

Finally, Seychelles' governance and political history is important for understanding the distribution of vulnerability and adaptation finance in the country. The previous government, United Seychelles, introduced major socialist reforms such as free health care and social housing (Künzler, 2018). However, the state also became increasingly authoritarian and for many years the political environment was characterised by animosity between the incumbent government and the opposition (Hofmeier, 2016). In 2020, the opposition party won the presidential elections, but the political divide between supporters of the previous government and the opposition persists (Africa Research Bulletin, 2020).

4.2 The adaptation finance landscape in Seychelles

Below I introduce the key adaptation finance sources and public adaptation actors in Seychelles: due to the complexity of adaptation and the multitude of actors, this should not be considered an exhaustive list. The aim is to highlight the complexity of the adaptation finance landscape and show that the government is not a unitary actor, but rather a compilation of different actors and (often fluid) factions. This is crucial for contextualising the subsequent findings on adaptation priorities.

In the absence of bilateral donors, Seychelles' adaptation finance comes mostly from multilateral funds and some from its domestic budget (GCCA, 2018). This is fairly representative for SIDS, whose share of international climate finance consists of 91% multilateral sources and only 9% bilateral sources (GCCA, 2018). Seychelles has received USD 34.3 million from the Green Climate Fund (GCF) distributed over four projects: three adaptation; one cross-cutting (GCF, 2023d). All four are multiple countries-projects, developed and implemented in collaboration with other countries. Seychelles has also received grants from the Global Environment Facility (GEF) and the Adaptation Fund.

Domestic expenditure on adaptation is harder to quantify accurately, as it is rarely labelled as such in budgets (GCCA, 2019a). The best publicly available information on public climate expenditures in Seychelles is from GCCA's assessment of climate expenditures in 2018 (GCCA, 2019a). It was found

that, although many government entities have potential climate linkages, few explicitly frame their activities in terms of climate change (GCCA, 2019a). Other sources of adaptation finance include domestic funds such as the Environment Trust Fund (ETF), Seychelles Conservation and Climate Adaptation Trust (SeyCCAT) and the National Grant Scheme, all of which are relatively small contributors of adaptation finance. ETF is funded through voluntary contributions from travellers and allocates around USD 0.5 million annually to environmental projects (GCCA, 2012; Seychelles Nation, 2019). SeyCCAT is funded through a debt-for-nature swap, organised by The Nature Conservancy, and allocates USD 0.2 million to adaptation projects annually (interview, other; SeyCCAT, 2015). SeyCCAT uses blended finance: a mix of private and public funding. The National Grant Scheme is a government funded scheme, which funds projects by non-profit organisations related to the country's national development priorities, including adaptation (Ministry of Finance, 2021). The scheme has allocated USD 2 million since it was set up in 2019 (Ministry of Finance, 2023).

Seychelles has a multitude of different actors with relevance to adaptation. At the highest level is the central government, consisting of a democratically elected ruling party. The government is responsible for legislation and political decisions related to adaptation. It holds a majority of seats in the National Assembly, where legislation is passed and budget allocation for ministries and other public entities is decided. The President appoints the Ministers who have political responsibility for their respective ministries (Republic of Seychelles, 1993, art. 69/para. 2). Departments that do not fall under a minister are the political responsibility of the President. While public entities are subject to political leadership, the entities themselves consist of civil servants. Although the distinction between political and administrative work may not be so clear-cut in reality, it does mean that there could be divergence even within individual public entities.

Within government, several entities deal with climate links (see appendix C.2). Some of the most important are MACCE and the Disaster Risk Management Department (DRMD). DRMD is a government division with responsibility for preventing and preparing measures against multi-hazard events (including, but not limited to, climate adaptation) (DRDM, 2019). Until recently, a silo working mentality in Seychelles meant that climate change was considered primarily within the realm of these two actors (GCCA, 2019b). However, the Government emphasised the need for cross-sectoral coordination in their most recent UNFCCC communication (Republic of Seychelles, 2021b).

MACCE has a complex role. It is responsible for implementing its own adaptation projects. Additionally, its principal secretary is the focal point to both GCF and GEF. They have no formal decision-making power in allocation of the funds' resources, but they influence which projects are nominated. Furthermore, MACCE manages the ETF and the Minister is a Board member of SeyCCAT, thus influencing decision-making in both funds. When local organisations want to apply for environmental

funds, whether domestic or international, they often need an endorsement letter from MACCE: *“when you get the Ministry of Environment to endorse a project, it gives it more weight. ... So, this is why that partnership is very important. And we have seen how it has really helped us in so many ways.”* (interview, non-governmental). Hence, MACCE directly and indirectly influences the allocation of both domestic and multilateral adaptation finance.

The Ministry of Local Government oversees adaptation in the 26 administrative districts: 23 on Mahe, two on Praslin and one for La Digue and Inner Islands (National Bureau of Statistics, 2022). Of the remaining islands, 14 are managed by the Island Conservation Society (ICS) and the rest are privately owned (National Bureau of Statistics, 2022). Districts are governed by government-appointed district administrators (DAs) together with district committees consisting of people from the community (Adaptation Fund, 2022; interviews, public administrators). They are responsible for local planning and hence local adaptation projects (GCCA, 2019b). According to informants from the Ministry of Local Government, districts receive two types of funding: community funding and emergency funding. Community funding is determined in the national budget and divided equally among the 26 districts each year. The informants explained that, to access the funding, each DA submits an annual plan outlining their proposed projects and activities. The Ministry then reviews the plan and conducts feasibility studies, including assessing the number of beneficiaries (GCCA, 2019b). Finally, the projects must be approved by the district committee.

Emergency funding is reserved for sudden, unexpected events at the local level. DAs report local emergencies to the Ministry which then assesses whether action is required. How emergencies are assessed has been subject to change in recent years. Until recently, the Ministry only assessed environmental effects. At the time of my fieldwork, in 2022, there were efforts to replace this with community-based cost benefit analyses (CBCBA), which consider social, economic and environmental effects. According to informants from the Ministry of Local Government, the push for adopting CBCBA comes especially from the Ministry of Finance. All this shows that allocation by the Ministry of Local Government is the result of both top-down and bottom-up priorities and interests, as well as influence from other entities.

Other relevant public actors on adaptation include the ministries of health, education and finance respectively, as well as conservation organisations. An informant from the Ministry of Health explained that climate change has changed the disease pattern in Seychelles, e.g. by introducing the mosquito-borne virus Chikungunya and causing a continuous dengue-outbreak (see McIver et al., 2016 for climate change health impacts in Pacific SIDS). Additionally, a significant share of health infrastructure is located in low-lying coastal areas at risk of flooding, along with most of the other housing and critical infrastructure. The Ministry of Education plays an indirect role in adaptation by educating citizens

about the environment. The school syllabus is committed to teaching environmental protection and sustainability to children through formal and extracurricular activities (Ministry of Education, 2015). The Ministry of Finance is responsible for the national economy, including strategies for sustainable development. As part of this, it manages the National Grant Scheme (Ministry of Finance, 2021). Finally, conservation organisations, such as ICS, also carry out adaptation efforts to protect ecosystems or animal populations against environmental changes. While conservation addresses ecosystem changes caused by both anthropogenic and climatic drivers, I do not have data to quantify these drivers vis-à-vis each other. Conservation organisations in Seychelles are funded from various sources, such as SeyCCAT, other environmental funds and donations from investors and visitors (interview, non-governmental).

This discussion suggests a complex and fragmented landscape of adaptation finance in Seychelles. Public actors on adaptation finance represent different sectors and different levels of governance from high-level political decision-makers to local public administrators. In the next section, I explore what this means for allocation of adaptation finance.

4.3 Allocation of adaptation finance

Based on the actors identified above, I try to untangle priorities concerning adaptation finance. I also discuss contextual factors influencing the allocation of adaptation finance, such as issues related to power and capacity. The aim is to show that actors have different perceptions of vulnerability, and that approaches to prioritising the most vulnerable must be understood within the national context. Furthermore, uneven power and capacity among public actors influence which constructions of vulnerability dominate in allocation practices.

I begin with the Government's official policies and continue with those of various public entities. Adaptation is a priority for the Seychelles' government due to the country's high vulnerability to climate change (Republic of Seychelles, 2015). In their national communication to the UNFCCC, they state an objective to "protect the most vulnerable population in society", who are subsequently referred to as "women, youth, children and others" (Republic of Seychelles, 2021, p. 19). This is the only reference to unequal distribution of vulnerability within the population, and the description "and others" leaves it open to interpretation. The document mostly discusses vulnerability in terms of climate-vulnerable sectors and identifies eight priority sectors for adaptation efforts (see table 4.2).

Table 4.2: Priority sectors and actions to increase resilience and reduce vulnerability up to and beyond 2030 (Republic of Seychelles, 2015, p. 6)

Vulnerabilities	Increased Resilience from
Critical Infrastructure	Climate change adaptation to be mainstreamed in all sectors with critical infrastructure Planning process for all new developments, with associated improvements in the building codes and their rigorous enforcement
Tourism	Greater co-management of the sector by the Ministry of Tourism and Department of Risk and Disaster Management as well as with the Ministry of Environment, Energy and Climate Change
Food Security	A sustainable modern agriculture supported by new and innovative technologies across all food production supply and value chains, and by skilled and qualified human resources and integrated with the <i>Blue Economy</i> and <i>Seychelles Strategic Plan 2015</i>
Biodiversity	Fully implemented <i>Seychelles Biodiversity Strategy and Action Plan</i> Fully implemented and enforced <i>Biodiversity Law</i> Fully bio-secure border
Water Security	Fully integrated approach to water security that addresses issues such as ecosystem health, waste management, water treatment and supply, sewage, agriculture, etc
Energy Security	More resilient energy base with greater innovation of renewable energy where practicable Efficient fuel-based land transport and more use of electric vehicles charged with renewable energy technology Strengthened cooperation between Government entities
Health	Health sector able to respond to population increase and its additional climate-related health burden Exploration of relevant potential science and technology innovations
Waste	Waste managed according to strict hierarchy and waste policy fully implemented Exploration of relevant potential science and technology innovations

National budgets from 2018-2022 all emphasise an overall goal to reduce fiscal deficits and achieve a sustainable debt level (Republic of Seychelles, 2018b, 2019, 2020, 2021a, 2022). The 2023 budget specifically mentions resilience to climate change as a focus area (Republic of Seychelles, 2022). It lists the adaptation investment priorities as: infrastructure of the tourism sector, coastal management, food security, biodiversification and the blue economy (Republic of Seychelles, 2022). This signals a narrower focus from the priorities in the UNFCCC communication from 2015, developed by the previous government. Attention to the tourism sector and the blue economy remains unchanged and reflects the before-mentioned objective to improve the national economy. I return to that later in this section as it also featured in several interviews.

Informants from various public entities had different responses regarding priorities in adaptation finance spending. Staff from the Ministry of Local Government expressed a priority for supporting the most vulnerable: *“We really try to have these projects [favouring the vulnerable]. In fact, then it takes precedence on other projects”*. They added that they considered only disabled and elderly people as particularly vulnerable, although I was unable to verify this in any documents. By suggesting projects, DAs also influence who are prioritised in local adaptation projects. One DA stated that their district does not prioritise any social groups over others, but rather: *“When we choose between projects, the criteria are high impact and low investment”*. High impact refers to the number of beneficiaries, and in combination with low investment reflects a cost-efficiency concern. The informants from the

Ministry echoed this, claiming that district committees evaluate projects based on their costs and how important they are for the people in the community. The DA acknowledged that priorities vary between DAs and hence between districts. This shows that even priorities of public administrators associated with the same Ministry can vary.

A public administrator from MACCE's coastal unit explained that due to limited resources they carry out few projects and "*prioritise the most vulnerable spots*". When asked how they identify the latter, he emphasised the number of people impacted: "*we only intervene if it benefits a whole community. Anse Boileau has one road that connects it to the rest of the island, if that road is impacted then the whole community is cut off*". This echoes the high impact-criterion, while also constructing it as a measure of vulnerability. Informants from both MACCE and the government further mentioned urgency as an important factor, resulting in adaptation that is often more reactive rather than proactive.

Although income and gender are identified as climate risk factors in the general literature (Eriksen, Nightingale and Eakin, 2015), they rarely appeared in my interviews and mostly when explicitly asked. Coastal protection constitutes a significant part of adaptation work in Seychelles, but low-income groups are not perceived as vulnerable in this regard:

The poor are not more vulnerable to sea-level rise. Many of them live in government housing, I can't think of any that are built close to the water. (interview, governmental)

The wealthy live on the beach and in the mountains. The poor live in the middle. The beach fronts are used by the hotels because we have to bring in money. (workshop participant)

Low-income groups were only mentioned in regards to water shortages and health: "*[...] desalination is expensive and increases the cost of living, so vulnerability is uneven across income groups*" (interview, governmental). The informant from the Ministry of Health highlighted their disproportionate exposure to health-risks associated with climate change. Most informants, particularly from the environmental sector (eg. MACCE and DRDM), simply did not mention any social indicators when asked about subnational differences in vulnerability. Regarding gender, some explicitly denied it as a risk factor for climate vulnerability (interviews, public administration and governmental). A former government official explained that "*Gender is in Seychelles' Intended Nationally Determined Contribution because GCF wants to see it. You have to tick certain boxes*". This shows that there exist a range of different perceptions of vulnerability among national and subnational actors. Furthermore, official government priorities may not reflect the real priorities at the subnational level, but rather external expectations.

Many actors expressed a priority for protecting the economy, particularly the tourist sector and the blue economy. This principally involves protecting critical infrastructure such as the airport and Port Victoria. Informants across different entities described protecting the economy as a way to protect the whole population (high impact), including the most vulnerable. This once again links the high impact-criterion to vulnerability considerations:

If we lose the airport we have no tourism, if we lose the port we have no fishing industry. The whole industry collapses (interview, public administration)

Protecting GDP is the best way to adapt because adaptation costs money (interview, private consultant)

I would not say that is marginalisation of certain groups. I would say it is more a focus on critical infrastructure which affects everyone. If the airport or the port goes down, everyone is affected (interview, other)

We will all be affected by changes to tourism, including the poor. Many of them work in tourism (interview, governmental)

Protecting the economy can be argued to disproportionately favour the wealthy, because it prioritises monetised adaptation benefits over non-monetised ones (Baatz and Bourban, 2019). Since the wealthy own more monetised assets, they have more to lose (in absolute terms) in an economic crash. At the same time, the impact on poor people may be worse because every bit they lose hurts them more (Baatz and Bourban, 2019). Informants merely emphasised that, despite how you define the most vulnerable, everyone depend on jobs and therefore a healthy economy. To understand this view we need to consider the national context. As discussed earlier, Seychelles has a small (in absolute terms) and undiversified economy, vulnerable to external shocks. The economy relies heavily on the fishery and tourism sectors, of which the latter employs almost a quarter of the work force. A high poverty level combined with low unemployment suggests that at least a significant share of marginalised groups actively participate in the economy.

The only challenge to prioritising the economy and the high impact-criterion came from the conservation sector:

Someone like [MACCE representative] would question why we should protect a place like Aldabra because it doesn't have any infrastructure. But Aldabra is an important ecosystem (interview, non-governmental)

Aldabra is a remote coral atoll and a UNESCO world heritage site, home to the world's largest cluster of giant tortoises; but no human population. A focus on people and the economy puts places such as these at a disadvantage in adaptation efforts.

Overall, the results show a fragmented landscape of adaptation finance in Seychelles, characterised by different priorities and perceptions of who are the most vulnerable to climate change. There is some convergence among actors, especially around the high impact-criterion. There is also convergence around protecting the economy, which is constructed as the best way to ensure high impact and protecting the most vulnerable. Yet, this puts conservation at a disadvantage despite biodiversity being an official government priority,

My fieldwork indicates that adaptation priorities are not the only factor shaping allocation; uneven power and capacity of actors influence to what extent their priorities shape allocation. Seychelles has experienced a high rate of democratisation in recent years (Papada *et al.*, 2023). When the current government came into power, it identified “*dishonest management of public funds*” under the previous government as a key issue (Republic of Seychelles, 2020, p. 9). This practice also influenced the allocation of adaptation finance. Some public administrators alluded to biased allocation practices in the past, e.g. favouring individuals and districts with closer political ties. They added that these practices became less prevalent following the government change, giving way to established assessment procedures for determining allocation.

Corruption is not the only way that power shapes allocation. As previously mentioned, MACCE is an important actor on adaptation finance, particularly due to its role in facilitating access to environmental funds. Some public administrators perceived MACCE as “controlling” adaptation finance and prioritising projects that are more aligned with their own objectives. As one put it: “[MACCE] are the custodians of climate finance”. This informant felt that actors in the environmental sector are prioritised at the expense of other sectors:

[MACCE] keeps the funding from donors and spends it within their own sectors. There is a lack of climate finance in the social sector and they do not know how to access it. ... [MACCE] is not taking any steps to reach out and suggest projects. They only reach out to ask for inputs to write about impacts and vulnerability for reports (interview, public administrator).

According to this, the priority given to health in the Government's UNFCCC communication does not seem to extend into allocation decisions for adaptation finance. The informant acknowledged that part of the challenge concerns the capacity within these sectors themselves. They do not possess the institutional knowledge or capacity to write adaptation funding proposals; and they lack proper frameworks for agenda-setting to support adaptation objectives in their sectors. The capacity issue

was echoed by an informant from the conservation sector with reference to the National Grant Scheme by the Ministry of Finance. She explained that it is often difficult for non-profit organisations with limited capacity to meet the application requirements within the given time frames.

Finally, I would like to offer a brief reflection on how the above findings may shape the spatial distribution of adaptation finance within Seychelles in the context of its archipelagic geography. The high impact criterion naturally prioritises more populated areas and islands. Additionally, several of the government's adaptation investment priorities (see table 2) indirectly prioritise areas with a higher concentration of human settlement (eg. water security, health and waste). Combined with the focus on protecting the economy and critical infrastructure, most of which is located around Victoria, adaptation finance allocation is more likely to be channelled to the capital and other larger settlements on Mahe. The district administrations receive an equal budget every year despite their population size, which they can choose to spend on adaptation-related activities. There may therefore be local differences in adaptation spending between district territories. The districts only cover Mahe and the Inner islands. The Outer Islands are either managed by the ICS, funded by environmental funds and donations, or privately owned. Budget differences between these actors are also likely to result in differences in adaptation spending between islands. However, more research is needed to compare adaptation spending between public and private actors in Seychelles.

5. Conclusion

This paper contributes to the literature on adaptation finance by shedding light on the role of recipient governments and how priorities and procedures shape subnational allocation. By investigating how allocation plays out in practice, it challenges the simplified narratives presented by the theories on subnational allocation determinants: climate vulnerability, donor utility and government interest. Based on a case study of Seychelles, I identify a fragmented subnational landscape of adaptation finance with multiple sources and public actors. Within this landscape, two elements shape allocation: priorities and uneven power and capacity of actors. The fragmented landscape of actors reflects in equally fragmented priorities for adaptation finance. Despite the Government's objective to protect the most vulnerable groups, there seems to be little communication between or within public entities regarding how to approach this. This results in a high level of inconsistency in actors' perceptions of vulnerable groups. Further research could examine the vulnerability of various groups identified by informants to compare real and perceived vulnerability. The Government's narrative on vulnerability seems to focus more on sectoral, rather than social, differences. While the official priority sectors for adaptation change over time due to political changes, focus remains on the country's main economic

pillars: tourism and fishing. This is in line with an overall political aim of improving the national economy and was echoed by many informants across various entities.

Despite the inconsistency in defining vulnerable groups, many actors agreed on a high impact-criterion and protecting the economy. These two priorities were usually linked to each other, and actors even constructed them as a way of protecting the most vulnerable. This has to be understood with reference to Seychelles' small and undiversified economy, which is highly vulnerable to external shocks. The findings support the initial hypothesis that there exist diverse perceptions of vulnerability among subnational actors. However, despite the diverse perceptions, many actors seem to converge around a shared narrative of how to protect the most vulnerable. How and whether the benefits of adaptation measures to protect the economy actually trickle down to marginalised groups requires further research. Nevertheless, it highlights that perceptions of vulnerability must be understood and evaluated within the national context. It furthermore has implications for how studies assess climate vulnerability as a determinant of subnational finance, as this is often evaluated through more direct financing of specific groups or locations. Further research could also assess whether women and low-income groups, which are identified in the literature as particularly vulnerable, are not indeed vulnerable groups in Seychelles. If they are not vulnerable, it would have implications for the funding requirements that donors often impose on recipients. It could also contribute to understanding the social structures that contribute to the vulnerability of certain groups.

The second element shaping allocation of adaptation finance is power and capacity of actors. Corruption has allegedly previously influenced the allocation of resources in Seychelles, favouring people with close political ties. Statements from informants suggest that these practices are changing, giving way to more formal procedures by public entities and administrators to determine allocation. Yet, public entities have different adaptation objectives and power still plays a mediating role. MACCE is a powerful actor on adaptation finance and informants perceived it to prioritise allocation to projects that are more aligned with its own adaptation objectives. The power struggle does not seem to concern how adaptation needs or priorities are defined, since the Government recognises adaptation as a cross-sectoral challenge. Instead, the power struggle concerns influence in allocation decision-making. Uneven power is combined with a lack of institutional knowledge or capacity in some sectors to apply for funds.

Overall, this suggests that we need a more nuanced narrative on the role of national governments in subnational allocation of adaptation finance that accounts for differing objectives and capacity of different actors to shape allocation. Studies on subnational allocation draw on a polarised and simplified narrative, in which donor utility is juxtaposed with government interest, and interests of 'good' governments are juxtaposed with those of 'bad' governments. Conceptualising governments as

non-unitary actors challenges this narrative, thus affecting how studies assess donor utility and government interest as determinants of subnational allocation. Furthermore, previous research on how subnational power differentials influence allocation tends to focus on the power of recipient groups or communities (eg. Eriksen et al., 2021; Thomas et al., 2019; Nightingale, 2017). However, this study suggests that to understand allocation we must also pay attention to the (uneven) power and capacity of public entities facilitating climate adaptation.

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Appendix

Chapter 2

Table A.1: List of documents used in the content analysis

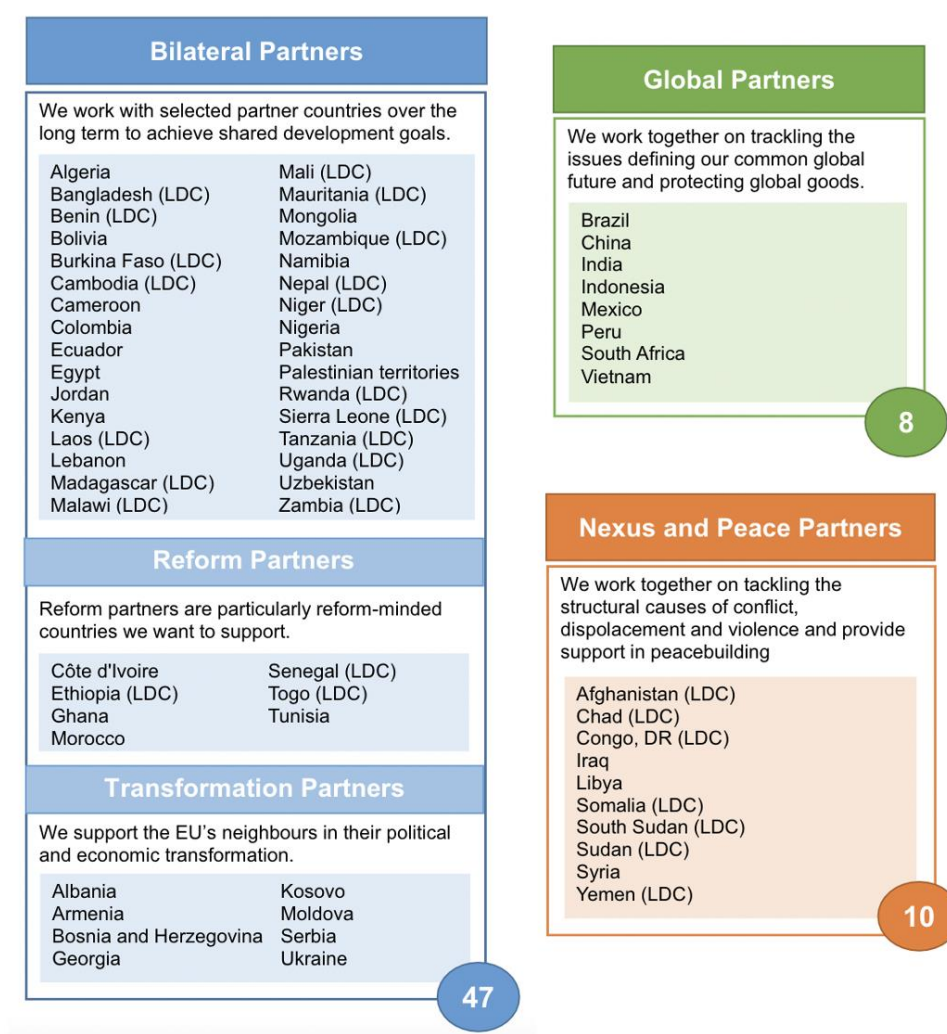
Title	Description	Reference
Bundeshaushaltsplan 2020: Einzelplan 23	Federal budget chapter for BMZ	(German Federal Government, 2020)
Leitlinien für die bilaterale Finanzielle und Technische Zusammenarbeit mit Kooperationspartnern der deutschen Entwicklungszusammenarbeit	BMZ guidelines for technical and financial bilateral development cooperation	(BMZ, 2021b)
BMZ 2030 Reform Strategy	BMZ report	(BMZ, 2020)
BMZ-Kernthemenstrategie: "Verantwortung für unseren Planeten - Klima und Energie."	BMZ report	(BMZ, 2021a)
Comprehensive Risk Management: The Approach of German Development Cooperation for Dealing with Disaster and Climate Risks	BMZ report	(BMZ, 2019)
Germany and Armenia agree on bilateral development cooperation	BMZ press release	(BMZ, 2022b)
The Role of the NAP Process in Translating NDC Adaptation Goals into Action	GIZ report	(Smithers et al., 2017)
The Vulnerability Sourcebook: Concept and Guidelines for Standardised Vulnerability Assessments	GIZ report	(GIZ, 2014)
Risk Supplement to the Vulnerability Sourcebook	GIZ report	(Zebisch <i>et al.</i> , 2017)

Table A.2: BMZ's core areas following the 2030 reform (BMZ, 2020)

FIVE CORE AREAS	
Peaceful and inclusive societies SDG 16	Areas of intervention: (1) Good governance (democracy, justice and a functioning state, anti-corruption, domestic resource mobilisation, local authority structures, social protection) (2) Peacebuilding and conflict prevention (3) Displacement and migration
A world without hunger SDG 2	Areas of intervention: (1) Food security (2) Rural development (3) Agriculture (including soil protection)
Training and sustainable growth for decent jobs SDGs 4, 8, 9 and 17	Areas of intervention: (1) Technical and vocational education and training (2) Private sector and financial sector development (3) Trade and economic infrastructure
Responsibility for our planet – climate and energy SDGs 7, 11 and 13	Areas of intervention: (1) Climate change mitigation and adaptation (2) Renewable energy and energy efficiency (3) Sustainable urban development (mobility, circular economy and waste management)
Protecting life on Earth – the environment and natural resources SDGs 6, 14 and 15	Areas of intervention: (1) Biodiversity (2) Forests (3) Water

Table A.3: BMZ's partner countries

BMZ's partner countries following the 2030 reform²⁴ (BMZ, 2022c)



Partnerships that ended with the 2030 reform (BMZ, 2020)

Azerbaijan	Haiti (LDC/SIDS)	Paraguay
Burundi (LDC)	Honduras	Philippines
Costa Rica	Kazakhstan	Sierra Leone (LDC)
Cuba (SIDS)	Kyrgyzstan	Sri Lanka
Dominican Republic (SIDS)	Laos (LDC)	Tajikistan
El Salvador	Liberia (LDC)	Timor-Leste (LDC/SIDS)
Guatemala	Myanmar (LDC)	Turkmenistan
Guinea (LDC)	Nicaragua	

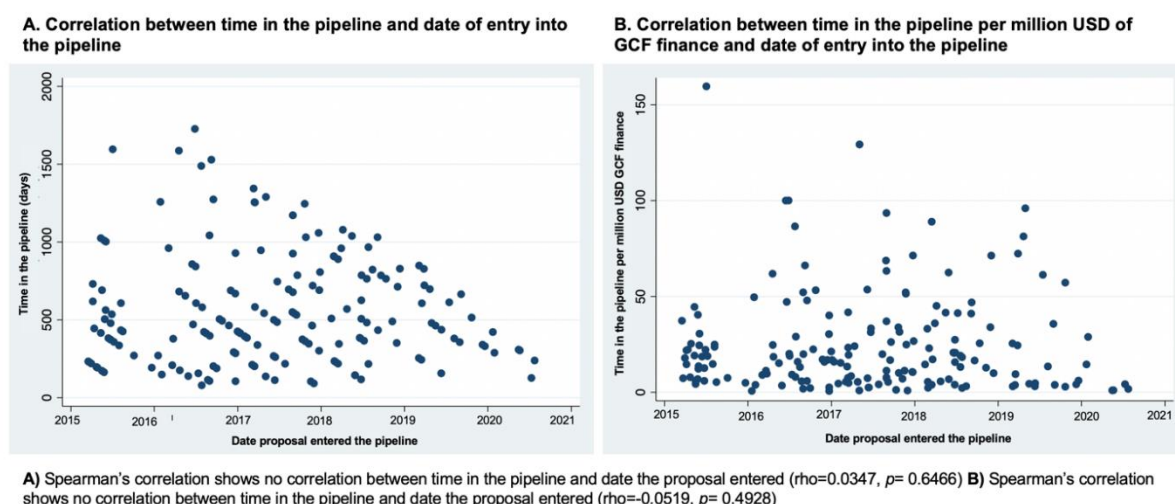
²⁴ At the time of writing, the partnership with Burkina Faso is under review due to the political situation in the country

Table B.1: Coding framework for feedback sheets

Feedback sheets		
Theme	Category	Examples of codes
GCF investment framework (deductive) ²⁵	Impact potential	Potential of the programme/project to contribute to the achievement of the Fund's objectives and result areas
	Paradigm shift potential	Degree to which the proposed activity can catalyse impact beyond a one-off project or programme investment
	Sustainable development potential	Wider benefits and priorities
	Needs of the recipient	Vulnerability and financing needs of the beneficiary country and population
	Country ownership	Beneficiary country ownership of and capacity to implement a funded project or programme (policies, climate strategies and institutions)
	Efficiency and effectiveness	Economic and, if appropriate, financial soundness of the programme/project
	Other	Comments that cannot be clearly linked to one of the official GCF investment criteria
Quality (inductive)	Alignment with GCF requirements	Project components do not meet GCF requirements
	Climate rationale	Distinguishing the project from a development project by making the climate aspect clear
	Format	Adherence to word limits and GCF templates, correct referencing
	Other quality aspects	(In)consistency in argumentation, factual mistakes, unclear assumptions and linkages between project components, flow of argument (Quality of application)
	Data	Requests for data
	Methodology	Questions regarding the methodology used to calculate climate impacts, project outcomes etc.
	Technical	Requests for more information: project design, use of technologies, feasibility studies, role of different actors, financial model (Quality of project)
Count	Count	Used to count how many comments there are in each feedback sheet

²⁵ The GCF investment framework, including detailed description of each criterion, is available from GCF (2020)

Figure B.1: Correlations between time in the pipeline and date the proposals entered the pipeline



Chapter 4

Table C.1: Table of documents included in the document analysis

Title	Publication year
Seychelles' National Development Strategy 2019-2023	2019
Seychelles' Updated Nationally Determined Contribution (NDC)	2021
Seychelles' National Climate Change Policy: Making Seychelles Climate Resilient	2020
Environment Management Plan of Seychelles 2000-2010	2000
Seychelles' Climate Change Strategy	2009
Seychelles' Sustainable Development Strategy 2012-2020	2012
Seychelles' Intended Nationally Determined Contribution (INDC)	2015
Seychelles' National Capacity Self-assessment (NCSA)	2005
Seychelles' National Report to the World Summit on Sustainable Development	2002
National Budget 2019	2018
National Budget 2020	2019
National Budget 2021	2020
National Budget 2022	2021
National Budget 2023	2022

Table C.2: Overview of state entities with strongest climate links (mitigation and adaptation) based on 2018 budget* (GCCA, 2019a)

Government entity	
Civil Aviation, Ports and Marine	Agriculture
Fisheries	Meteorology
Land Transport	Seychelles Agriculture Agency
Seychelles Investment Board	Blue Economy
Education	National Parks
Public Utilities Corporation (PUC)	Tourism
Environment	Employment
Seychelles Fisheries Authority	Disaster Risk Disaster Management
Infrastructure	Seychelles Energy Commission
Local Government	Investment
Health	Foreign Affairs
Finance and Trade	Economic Planning

* The entities are not listed in order of significance.

Declaration of co-authorship

The second paper of my dissertation, “Delays in funding approval and gatekeeping of climate funds: An analysis of adaptation projects in the GCF” was produced in collaboration with Laura Kuhl from Northeastern University and Feisal Rahman from the Living Deltas Hub at Newcastle University.

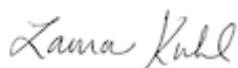
Laura Kuhl, Feisal Rahman and I co-developed the conceptual basis for the paper and carried out the quantitative data collection and analysis. I carried out the qualitative data collection and analysis. I also led the writing of the paper with support from Laura and Feisal.

This paper was written in accordance with the DFG Guidelines for Safeguarding Good Scientific Practice.

Kiel, May 2024

Clara Bartram Gurresø

I confirm that this declaration is correct:



Laura Kuhl



Feisal Rahman

Declaration of independent work

I hereby declare that I have produced my doctoral thesis “Distribution of Adaptation Finance in the Global South: A Qualitative Investigation of Current Procedures and Criteria” independently and without external assistance, and that I have made a significant contribution as co-author to other scientific articles. I have identified all word-for-word quotations of other authors, as well as comments based closely on other authors’ ideas, and I have cited the sources according to the guidelines I received.

Kiel, May 2024

Clara Bartram Gurreød

Annex A

Gurresø, C. B. (2022) 'Power of the Powerless'. Observatoire Multilateralisme & Organisations Internationales. Available at: <https://observatoire-multilateralisme.fr/publications/power-of-the-powerless/>

Power of the Powerless

Small Island Developing States (SIDS) are highly vulnerable to the adverse effects of climate change and have actively called for policy on Loss and Damage in the multilateral climate negotiations hosted by the United Nations Framework Convention on Climate Change (UNFCCC). While Loss and Damage has received support from other developing countries, developed countries have strongly opposed it due to concerns over liability and compensation. Despite the resistance, SIDS have managed to achieve some major victories, such as the establishment of the Warsaw International Mechanism (WIM) in 2013 and the inclusion of a separate article on Loss and Damage in the Paris Agreement from 2015. This article explores how small states with limited resources and capacity have been able to achieve their demands against the interest of much larger and wealthier states and identifies strategies to increase their influence.

Small island states and climate change

Although Small Island Developing States (SIDS) have contributed a negligible amount to global greenhouse gas emissions they are disproportionately affected by the adverse effects of climate change (Nurse et al., 2014). For this reason, they have actively called for policy on Loss and Damage in the international climate negotiations hosted by the UN Framework Convention on Climate Change (UNFCCC) (Mechler et al., 2019). However, their participation in the negotiations is restricted by their small delegation sizes which poses challenges to their negotiating capacity compared to larger countries (Betzold et al., 2012).

Broadly speaking, Loss and Damage refers to harms caused by climate change that cannot be avoided through mitigation and adaptation measures (Kreienkamp & Vanhala, 2014). Mitigation is the act of reducing and stabilising the level of greenhouse gasses in the atmosphere, while adaptation refers to adjustments in human and ecological systems to help them cope with the effects of climate change. However, insufficient mitigation efforts combined with limited adaptation capacities result in unavoidable residual damages.

While Loss and Damage has received support from other developing countries, developed countries have strongly opposed it due to concerns over liability and compensation. Despite the resistance, SIDS have managed to achieve some major victories, such as the establishment of the Warsaw International Mechanism (WIM) in 2013 (UNFCCC, 2013) and the inclusion of a separate article on Loss and Damage in the Paris Agreement (Article 8), which established Loss and Damage as the third pillar of the climate regime along with mitigation and adaptation (UNFCCC, 2015). This begs the question of how small states with limited resources and capacity have been able to achieve their demands against the interest of much larger and wealthier states.

SIDS still face some important fights in the Loss and Damage arena, notably on how to raise more finance and whether the WIM should be governed under the COP (the decision-making body of the UNFCCC) or the CMA (the decision-making body of the Paris Agreement). At COP25, SIDS supported joint governance under the COP and the CMA, which would make Loss and Damage a permanent agenda item under the Convention and potentially allow Parties to bypass Paragraph 51 of the Paris Agreement regarding liability and compensation. On the contrary, single governance under the CMA would restrict discussion on Loss and Damage to take place only under the Paris Agreement processes. COP25 and COP26 both concluded without a decision on governance and without responding to developing countries' call for a Loss and Damage finance facility. These issues will therefore have to be dealt with in future sessions. But can an understanding of how SIDS have previously asserted power in the negotiations inform a strategy for how to achieve their demands in upcoming negotiations?

Corneloup & Mol (2014) point out that there is a lack of systematic research on the resources and strategies of SIDS in international climate negotiations. Only a few scholars have explored this topic, and none of them address Loss and Damage specifically despite its growing importance in the climate negotiations in recent years. Drawing on my own observations from the Loss and Damage negotiations and insights from my MSc thesis *"Understanding the Power Resources of Small Island States in the UNFCCC Loss & Damage Negotiations"* (Gurresø, 2020), I examine Corneloup & Mol's (2014) theory on SIDS' power in the UNFCCC and propose three recommendations for how they can enhance their influence in the negotiations.

Power in international climate negotiations

Power has many different facets, but ultimately it is the ability to influence, whether directly or indirectly, and to avoid domination by others (Bosch, 2016). In the context of the Loss and Damage negotiations, power can therefore be understood as the ability to influence the outcome of the negotiations by imposing one's preferences, by reinforcing existing attitudes that support one's position, or by resisting pressure from opposing Parties.

In a general study on the role of SIDS in the climate negotiations, Corneloup & Mol (2014) presented five types of leadership strategies that can act as a source of negotiating power. It is important to note that these strategies are not mutually exclusive, as SIDS may draw on several or all of them simultaneously.

“Structural leadership” is derived from the possession of material resources and the ability to use those resources effectively. Due to their limited resources, Corneloup & Mol (2014) argue that SIDS do not hold structural power. However, as Young (1991) points out, for small actors structural power can also be achieved through effective coalition building. SIDS have actively pursued this through the Alliance of Small Island States (AOSIS), which enables them to collaborate and share resources, and their membership of the Group of 77, which represents all developing countries in the UNFCCC and therefore has a powerful voice in the negotiations.

“Entrepreneurial leadership” arises from the ability to draft mutually acceptable deals and to frame issues in ways that stimulate integrative bargaining. At COP25, SIDS actively exercised this form of leadership by developing bridging proposals to overcome stalemates between the G77 and the developed countries in the Loss and Damage negotiations. Instead of fighting against the demands of developed countries, SIDS instead attempted to include their demands in a way that was more agreeable to themselves and other G77 members. Entrepreneurial leadership was also exercised through side events that influenced the discourse on Loss and Damage.

“Intellectual leadership” is exercised through the production of intellectual capital and/or systems of thought that shape actors’ perspectives on relevant issues. This mostly occurs outside of the negotiations, although SIDS actively draw on and promote scientific knowledge in the negotiations to support their demands. As such, the fifth IPCC report, which was released one year before the Paris Agreement was finalised, was influential in establishing Loss and Damage as a separate article, due to its finding that losses and damages from climate change are likely to occur despite mitigation and adaptation efforts.

“Environmental leadership” comes from domestic policies and practices that reflect high levels of ambition and thereby strengthen the legitimacy of an actor in the negotiations. For instance, SIDS framed their mitigation plans to align with the 1.5oC target to support their demand for an ambitious temperature target. At COP25 I did not observe any examples of SIDS promoting domestic practices related to Loss and Damage, although such practices do exist. For instance, Tuvalu has established a Survival Fund to respond to losses and damages experienced by local communities.

“Moral leadership” arises from SIDS’ storyline which centres on their high vulnerability to climate change despite their negligible contribution to global emissions. In the Loss and Damage negotiations,

SIDS have repeatedly drawn attention to the historical responsibility of developed countries and raised concrete examples of losses and damages in SIDS caused by climate change.

Recommendations for strengthening the influence of SIDS

Based on leadership strategies proposed by Corneloup & Mol (2014) and conversations with actors involved with the Loss and Damage negotiations, I identify the following opportunities for how SIDS can enhance their influence in future meetings:

« Collaborate more with foreign civil society actors » – Coalition-building is not limited to inter-state cooperation. Indeed, collaboration with civil society actors on lobbying efforts can constitute an effective channel to influence Western governments. Civil society often have close ties with their national governments, and SIDS can leverage that in two ways. Firstly, during COP civil society can provide insights into their own governments' positions and rationale. However, the most important form of collaboration with civil society should take place outside of the COPs. Negotiators are tied to a mandate that is decided prior to the negotiations, thereby limiting the influence that civil society and foreign governments can assert during COP. Collaborating with foreign civil society groups throughout the year to promote certain issues and to shape public discourse in their countries would enable SIDS to indirectly influence the political agenda going in to the negotiations.

« Promote domestic efforts related to Loss and Damage » – SIDS could do more to assert environmental leadership in the Loss and Damage negotiations by promoting their domestic actions related to the issue. One example is Tuvalu's Survival Fund which is a national fund set up to support its population deal with losses and damages caused by the impacts of climate change. By showcasing these domestic initiatives, they can position themselves as role models and put moral pressure on developed countries to increase financial contributions.

« Produce a Loss and Damage finance gap report » – In order to strengthen their demands for more finance for Loss and Damage, SIDS need to assert more intellectual leadership. Without concrete estimates for how much finance is needed and how much is currently available, developed countries are too easily able to deflect SIDS' demands by referring to the climate finance that they already contribute to funds like the Green Climate Fund. UNEP (2020) produces an annual Adaptation Gap Report, which focuses on financing and implementation for adaptation, and SIDS should encourage a similar report on Loss and Damage. In addition to providing leverage in formal negotiations, a finance gap report could also be used as a tool for foreign civil society actors to lobby their governments.

With this article, I have contributed to the understanding of SIDS in international climate negotiations by applying the literature on leadership strategies to their role in the Loss and Damage negotiations.

Based on this, I have proposed three ways in which SIDS can enhance their influence to achieve their demands at COP27 and other future Loss and Damage negotiations; collaboration with civil society outside of COP, promote domestic efforts related to Loss and Damage, and produce a Loss and Damage finance gap report.

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Annex B

Klöck, C., Castro, P., Chin-Yee, S., Gurreø, C.B., Desmaures, C., Bouly, E., Carrillo Risi, D., & de Pryck, K. (2024). 'Beyond AOSIS: Small Island States' Presence and Participation at COP27', *Climate and Development*, pp. 1-12.

(Article appears on next page)

RESEARCH ARTICLE



Beyond AOSIS: small island states' presence and participation at COP27

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ABSTRACT

Small islands are at the frontline of climate change – and of climate negotiations. Yet while the Alliance of Small Island States (AOSIS) has allowed small islands to collectively become a key player in UN climate negotiations, a focus on the group level masks important inequalities *within* AOSIS. This paper hence goes beyond the level of AOSIS to understand the power and agency of small island states in the global climate regime. We are interested in how islands experience and navigate the complex and unequal climate negotiations, and specifically explore the presence and participation of *individual* small island states at COP27. Drawing mainly on collaborative event ethnography at COP27, our analysis shows indeed stark differences across island states. Whether we look at mere presence, participation in formal negotiations or engagement 'on the sides', we notice that some island states are much more active than others, as a result of not only different capacities but also and importantly because of the personal commitment and engagement of individual island negotiators. Overall, this seems to reflect cultural and power inequalities within the group, but does not detract from AOSIS' overall success, as seen in the long-sought fund for loss and damage adopted at COP27.

ARTICLE HISTORY

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KEYWORDS

Climate negotiations; climate diplomacy; UNFCCC; Alliance of Small Island States (AOSIS); Small Island Developing States (SIDS); COP27; collaborative event ethnography (CEE)

1. Introduction

While very culturally and socio-economically diverse, small islands are suffering disproportionately from climate change. Indeed, with a changing climate, rising sea levels and the proliferation of extreme weather events, the lives, livelihoods and the very way of life of islanders are at risk (Chin-Yee, 2019; Mycoo et al., 2022). At the same time, small islands have contributed very little – almost nothing – to anthropogenic climate change: island emissions represent less than 1% of global greenhouse gas emissions (IPCC, 2022). Recognizing this injustice, and their dependence on ambitious global climate agreements, already in the early 1990s small islands overcame their differences and formed the Alliance of Small Island States, AOSIS, to represent island interests in UN climate negotiations.

As a group, and despite their small size and limited political clout, islands have indeed become an influential and vocal player in UN climate talks. Islands can be among the loudest voices in the room, constantly demanding action from the largest emitters. They have effectively been called the 'conscience of the negotiations' (Betzold, 2010; Davis, 1996; de Águeda Corneloup & Mol, 2014).

Their achievements may remain moderate overall – after all, it has been 30 years since the creation of the United Nations Framework Convention on Climate Change (UNFCCC), and temperatures have continued to rise. Nevertheless, islands have *collectively* left a clear trace in these negotiations. A notable example is AOSIS' advocacy work to put the 1.5°C target on the agenda and to have it inscribed into the long-term global goal of the Paris Agreement (Cointe & Guillemot, 2023).

Several studies seek to describe and explain the achievements of AOSIS, and their negotiation strategies, yet all of these focus on the group level (Ashe et al., 1999; Benjamin, 2011; Betzold, 2010; Betzold et al., 2012; de Águeda Corneloup & Mol, 2014; Klöck, 2020).

The focus on the group level is understandable. Coalition-building is key to understanding islands' participation and role in UN climate negotiations, as well as other multilateral forums (see e.g. Deitelhoff & Walbott, 2012). Multilateral negotiations such as those on climate change are principally between groups or coalitions, rather than individual countries (Dupont, 1996; Klöck et al., 2021). However, we argue that the focus on the group level overlooks the dynamics of cooperation and coordination, but also of power and inequality that exist *within* coalitions. Coalitions include more and less powerful countries, more and less active countries, countries with more or less expertise and negotiation capacity. Also, each country comes with different national interests and priorities that do not necessarily align with the common position. Particularly, larger groups such as AOSIS with its 39 member states,¹ have diverse members whose positions and preferences are not always aligned (see Betzold et al., 2012) and/or who are not active and visible to the same extent.

This paper extends work on AOSIS in climate negotiations in two ways: First, our analysis goes beyond the *group* level of AOSIS to understand the power and agency of small island states in the global climate regime. We are interested in how *individual* islands experience and navigate the complex and unequal climate negotiations. Second, our analysis not only takes into account formal negotiations but also considers

informal spaces at COPs, mostly side and pavilion events, as well as online spaces, that is, Twitter. We focus on the 27th Conference of the Parties to the UNFCCC (COP27) that took place in Sharm El-Sheikh in November 2022 and explore the presence and participation of *individual* small island states there. To do so, we first review the literature on AOSIS in the climate negotiations, and differences across its member states. We then present our methodological approach. Our main data source is from collaborative event ethnography (CEE) that we conducted on site as well as from a distance. Additionally, we draw on our general experience of the last climate summits, as well as negotiation documents and commentaries. In Section 4, we then present the results from this rich qualitative data, whereby we distinguish between variation in island states' presence (Section 4.1); participation within formal negotiations (Section 4.2); and engagement beyond actual negotiations, in side and pavilion events or online (Section 4.3). In Section 5, we relate our findings to the broader literature and conclude.

2. Literature review

Islands recognized early that they would be disproportionately affected by climate change, in particular slow-onset sea-level rise – and that they would have to band together to make their voice heard. 14 small islands thus met at a conference on small islands and climate change in Malé, Maldives, in 1989. This led to an Action Group and later, the Alliance of Small Island States (Bouchard, 2004; Carter, 2018). AOSIS represented the first inter-regional negotiation group in the climate talks, comprising at the outset 24 states but quickly growing to its current membership of 39 island states from across the world's oceans. Today, AOSIS is one of the key groups in the UN climate negotiations – no small feat for a group whose members lack the political clout of much larger economies and rarely participate in global decision-making (Corbett et al., 2021).

Coalition building is an essential feature of multilateral negotiations (Dupont, 1996; Laatikainen & Smith, 2020). By increasing members' negotiation capacity and bargaining power, coalitions are particularly important for smaller and less wealthy states, such as small islands (Klöß et al., 2021). The difficulties of such states to participate fully in multilateral negotiations are well-documented, and in particular result from small delegations. With only a handful of diplomats on site, these states struggle to attend multiple parallel meetings, negotiate late into the night, or simply have the necessary expertise and capacity to keep on top of an ever growing volume of agenda issues, texts and information (Depledge & Chasek, 2012; Ó Súilleabháin, 2014).

Accordingly, forming AOSIS and coordinating tightly is recognized as a key factor in explaining how small islands became visible and (relatively) influential in the climate negotiations (Betzold, 2010; de Águeda Corneloup & Mol, 2014; Ronneberg, 2016). By cooperating, sharing the negotiation burden and pooling their resources, islands were able to participate actively (Betzold, 2010; de Águeda Corneloup & Mol, 2014). Further, a position backed by 39 states (or one fifth of all Parties) carries more weight. As Corbett et al.

(2021) write, 'diplomats draw their strength from numbers. Numbers give SIDS (Small Island Developing States) weight in negotiations' (see also e.g. Jones et al., 2010; Slade, 2003). And to play the 'numbers game', islands have to speak with one voice. Observers thus noted from the very beginning that island negotiators 'acted as though they were members of *one* negotiating team' (McMahon, 1993, p. 11; emphasis added).

Although AOSIS still coordinates very tightly today, meeting one week ahead of the yearly COPs and twice daily during the two weeks of COP, this means that much of their coordination takes place within an already very tight timeline. Thus, maintaining the group's cohesion is a challenge (Betzold et al., 2012; Campling, 2006, p. 264; Laatikainen, 2020). Indeed, there is a tendency to underestimate the diversity of AOSIS' 39 members. AOSIS members may share a common vulnerability to climate risks, as well as a historically marginal role in international affairs. At the same time, they also differ very much in terms of their size, negotiation capacity, scientific and technical expertise, culture, etc. For example, Cuba and Haiti have populations of over 10 million – not exactly very small. Tuvalu in contrast has a population of only 10,000, and accordingly a very small diplomatic corps and presence worldwide. Comparatively, Singapore (population of 3 million) has a well-trained diplomatic corps and is actively engaged in promoting small states at the UN through the Forum of Small States (Alles, 2016). Not least because of different histories and cultures, islands also have different negotiating styles, as Corbett et al. (2021, p. 101) note: 'the Caribbean and Indian Ocean SIDS are seen as more aggressive while the Pacific is perceived as taking a much quieter approach'. In contrast, Shea et al. (2021, p. 5) note that 'some Pacific Islands have historically taken much more vocal stances than others within the UNFCCC, as evidenced by the Fijian presidency of COP 23 and the Marshall Islands' leadership in the high ambition coalition at COP 21'. Herren (2009, p. 32) also singles out Tuvalu, which has 'not only become highly influential within AOSIS but also a renowned actor in the broader climate forum'.

Given such differences across regions, Caribbean islands on the one hand, and Pacific islands on the other, have formed subgroups and coordinate as CARICOM (Caribbean Community) and P-SIDS (Pacific SIDS), respectively (Carter, 2015, 2021). At the same time, the ever-growing climate agenda has also led to more issue-specific groups, such as the Coalition for Rainforest Nations (CfRN), that some AOSIS members gravitate towards (Laatikainen, 2020) – potentially at the expense of their engagement and advocacy within AOSIS.

Overall, AOSIS has clearly become a successful player in the climate negotiations *as a group*; yet analyses at the group level fall short of understanding *who* is actually present, *which islands* participate – even when they do so on behalf of AOSIS – and *how*. Our paper fills this gap by paying specific attention to the presence, participation and power of individual small islands and negotiators who drive the influence of AOSIS, and by considering how such influence weaves across multiple sites, including formal, informal, and online spaces (Bansard, 2023).

3. Methods

We address our question through an analysis of the participation of small island states at COP27, which took place in Sharm El-Sheikh in Egypt between 6 and 18 November 2022. In a world transformed by the global pandemic and facing a major energy crisis following the Russian invasion of Ukraine, COP27 was crucial to keep climate change on the international agenda and to reaffirm key priorities for developing countries. Organized in Africa, home to some of the most climate-vulnerable countries and communities, issues of adaptation, finance and loss and damage ranked high on the agenda. Indeed, being framed as an African COP, the concept of climate justice was at the heart of the negotiations on loss and damage (Williams et al., 2023). COP27 thus had the potential to echo the agenda of small island states.

In line with this special issue's focus, we mainly collected data through collaborative event ethnography (CEE). CEE involves a group of researchers that collectively undertake ethnographic research on specific events. By working collaboratively as a group, researchers can 'better cover the multiple sites at, and thus make better sense of, a meeting' (Brosius & Campbell, 2010, p. 247; Gray et al., 2023). This means collaborating to cover different events, share observations and think through emerging questions and conclusions. At the international level, CEE has for instance been used to cover 'transnational mega-events' such as the Fourth World Conservation Congress in 2008 (Brosius & Campbell, 2010) or COP21 in 2015 (Aykut et al., 2017). CEE was crucial to follow representatives of small island states across COP spaces. CEE, however, is resource-intensive, as it requires having a research team on site or online, often meaning that it can only be used for a short period of time (e.g. one COP).

We also build on approaches that seek to widen our understanding of what constitutes a site of agreement formation (Hughes & Vadrot, 2023; Hughes et al., 2021). While the focus has long been on formal negotiations, scholars have called to study how other spaces (side events, press conferences, corridors) and institutions (subsidiary bodies, intergovernmental scientific bodies, secretariats) also contribute to forging agreements. Hughes et al. (2021, p. 2) speak of *agreement-making* to describe 'the multiple actors, sites and processes through which environmental agreements are made, and the new sets and arrangements of actors, sites and processes that are created by any specific agreement, which have the potential to reinforce or reorient the global political order' (see also Hughes & Vadrot, 2023). We therefore look not only at formal negotiations, but also consider informal sites, especially side and pavilion events, as well as online platforms, notably Twitter, that have been long neglected in the study of multilateral negotiations (Marion Suiseeya & Zanotti, 2023).

All authors participated in CEE, on site and/or virtually, through the COP platform and/or webcasts, webinars and the like. Beyond attending negotiation sessions open to observers, we attended side and pavilion events on topics that are of relevance to AOSIS, and/or where AOSIS members participated as speakers. We also followed social media, in particular Twitter, and media reporting of the COP to trace when and

where small islands were either active themselves or mentioned in reports and articles. We acknowledge that even as a group of researchers, we could not follow everything happening at COP27, especially discussions and dynamics behind closed doors. For example, we were unable, as observers, to attend the daily AOSIS coordination meetings. Our account of island participation is thus necessarily incomplete. Nevertheless, we are confident that our account reveals important differences in the level and kind of activity pursued by different island states in the UNFCCC.

We followed a common scheme to take notes (see Table 1). This scheme helped us to compare notes and focused our attention specifically to questions of presence, participation, and power. Alongside our extensive notes, we also spoke informally to island negotiators, e.g. after side events, in the corridors and in meetings, to learn more about their presence and participation, coordination within AOSIS and other negotiation groups, and the difficulties of following such complex and large events like the COPs.

We complemented our personal observations with other qualitative data, such as negotiation documents. First, we used data on delegation size and composition from the official list of participants (UNFCCC, 2022). Second, we used negotiation summaries from the *Earth Negotiations Bulletin* (ENB; IISD, 2015–2022). Although their summaries are incomplete, in particular for informal consultations, the ENB provides useful information on which island states take the floor, and whether they do so as individual countries or on behalf of a group. Third, we considered the official list of side events from the UNFCCC, as well as the list of events organized under the Marrakech Partnership for Global Climate Action. Finally, we also draw on our general observations of prior COP, SB (Subsidiary Bodies) and IPCC (Intergovernmental Panel on Climate Change) meetings that authors attended, as well as countless discussions and conversations we had at these meetings.

4. Results

Billed as the 'African COP' and with a focus on climate finance, islands were not only present in large numbers but also at high levels. We explore presence, as measured by delegation size and delegation composition, in more detail in the next section, then turn to our observations within the negotiation rooms.

Table 1. Common note-taking scheme.

<i>Logistics</i>
ID (note-taker /observation #)
Name and type of event (negotiation, side event, etc.)
topic (e.g. new finance goal, mitigation, etc.)
date and time
<i>Attendants</i>
small island states present
other observations (e.g. limited access, islands sitting next to each other, etc.)
<i>Process</i>
Which island states took the floor, how often? On behalf of AOSIS, or as individual state?
What was the intervention about? How was it made (assertive, cooperative, etc.)?
Any other observations?

We conclude with our analysis of islands outside the formal negotiations.

4.1. Presence: exploring delegation size and composition

Presence at COPs is a prerequisite for influencing the negotiations, and islands take presence seriously (Reuters, 2021), even when it comes at significant costs. Financial costs are often borne by others, such as the UNFCCC participation fund (which funds three delegates from each SIDS to COP, see UNFCCC, 2017), development partners, or other organizations. Some of this funding is only confirmed shortly before COP, making participation uncertain and traveling arrangements costly. Often, AOSIS members cannot afford to change travel arrangements last minute. This is a particular challenge when negotiations go over time and island negotiators may have to return home even before the final plenary. At COP25, for example, the loss and damage coordinator was only able to change her travel arrangements some hours before she was originally supposed to have left Madrid, which created a lot of uncertainty in the AOSIS coordination meetings.

Even in terms of obtaining visas or travelling time, coming to COP is difficult: Many island delegates had to travel for several days to arrive in Sharm El-Sheikh. A Pacific delegate explained that he travelled for 3.5 days, meaning that he will be away for one month in total (11 November 2022).² A Caribbean delegate similarly mentioned she would travel for 2.5 days, much of which was spent in transit (8 November 2022). Additionally, arriving days or even weeks in advance is exhausting, and maintaining momentum for weeks on end is draining on the negotiators (Pacific delegate, 9 November 2022).

Despite such difficulties, participation is ‘worth it’ (Pacific delegate, 18 November 2022). Indeed, COP27 saw a record participation of AOSIS delegates: overall, according to the official list of participants, 1044 island delegates were in Sharm El-Sheikh, out of a total of 11,969 state delegates (UNFCCC, 2022). Even if AOSIS members originally wanted to send more delegates (the preliminary list of participants lists 1241 island delegates (McSweeney, 2022)), this represents a stark increase in the number of delegates compared to COP26 in Glasgow (779 AOSIS delegates), which was still heavily impacted by the Covid-19 pandemic (Klöck, 2021; Lyons, 2021; Reuters, 2021). Island participation at COP27 even tops their participation at COP21 in Paris, where 918 AOSIS delegates were present.

Yet the strong island presence does not mean universally strong presence. There is in fact strong variation across islands. On average, each AOSIS member sent 27 delegates,³ yet delegation sizes ranged from zero to 92. Saint Vincent and the Grenadines was the only AOSIS member completely absent at COP27. The largest delegation was that of Papua New Guinea, with 92 delegates. Other islands with large delegations included Dominican Republic (58 delegates), Singapore (55 delegates) and Bahamas (50 delegates).

Several island negotiators that we spoke with during COP27 noted that their delegations were larger than usual, partly to make up for their relative absence at the last COP in Glasgow

(Pacific delegate, 9 November 2022). Having more delegates was welcomed, as small delegations of just two or three negotiators have to make hard choices on which agenda items to follow: ‘It’s one or the other’ (Pacific delegate, 9 November 2022). A Pacific delegate noticed that they have five or six times the number of delegates they usually send, meaning that they ‘can follow all the negotiation streams. It’s quite something for a country the size of ours’ (11 November 2022); another Pacific delegate similarly explained that with a larger team, they can cover ‘most of the streams, including Article 6, which we never covered before’ (9 November 2022). Nevertheless, even a record number of delegates still requires prioritization; as a Caribbean delegate commented, even their delegation of more than 25 could not follow everything (8 November 2022).

Furthermore, delegations do not only comprise negotiators. Numbers can be deceiving as it is also important to consider delegation *composition*. Overall, we note that many island delegations were diverse, and quite high-level. Almost all AOSIS members (36 out of 38 present) sent at least one minister to COP27;⁴ eleven island states sent two, and six even three ministers – such a strong ministerial representation is unusual (Caribbean delegate). Thirteen AOSIS members sent their head of state or government. This high-level representation signals the importance given to the event, but not all high-level representatives are present and active throughout the COP; particularly heads of state or government tend to come only for the high-level segment at the start of the COP, and may inflate delegation size by bringing their ‘entourage’ (Pacific delegate; see also Müller et al., 2021). Of note, however, is the active participation of several island ministers in technical negotiations throughout the COP, including for example Seve Paeniu, Minister of Finance and Economic Development of Tuvalu, who we observed in the negotiations on the cover decision, on finance, and in several side events, and Mia Mottley, prime minister of Barbados (see also section 4.2 below).

Alongside senior and high-level delegates, AOSIS members also send junior delegates. For several negotiators we spoke with, COP27 was their first COP. They were mainly there to observe and to learn, not to negotiate. Some were in fact quite unfamiliar with the COP setting, unprepared to take their place at the negotiation table and not necessarily able to follow the technical discussions in English; we observed some of them being coached by more senior delegates (field notes, 12 November 2022).

Finally, not all delegates are affiliated with their countries’ governments, as we show in Figure 1 (see also Carter & Howard, 2020). Many on the Papua New Guinea delegation were in fact staff from Ernst & Young. Other delegations may have advisers from ‘negotiation support NGOs’ (Chan, 2021) such as Climate Analytics, who accompanied the delegations of Grenada, Palau, Saint Kitts and Nevis, Tonga, and Trinidad and Tobago. A Caribbean delegate explained that they try to also bring business representatives, the youth, or the media to relate back to the domestic audience what they are doing at COP – not least to justify why they brought so many delegates, at considerable cost (8 November 2022). Several Pacific delegates similarly made an effort to

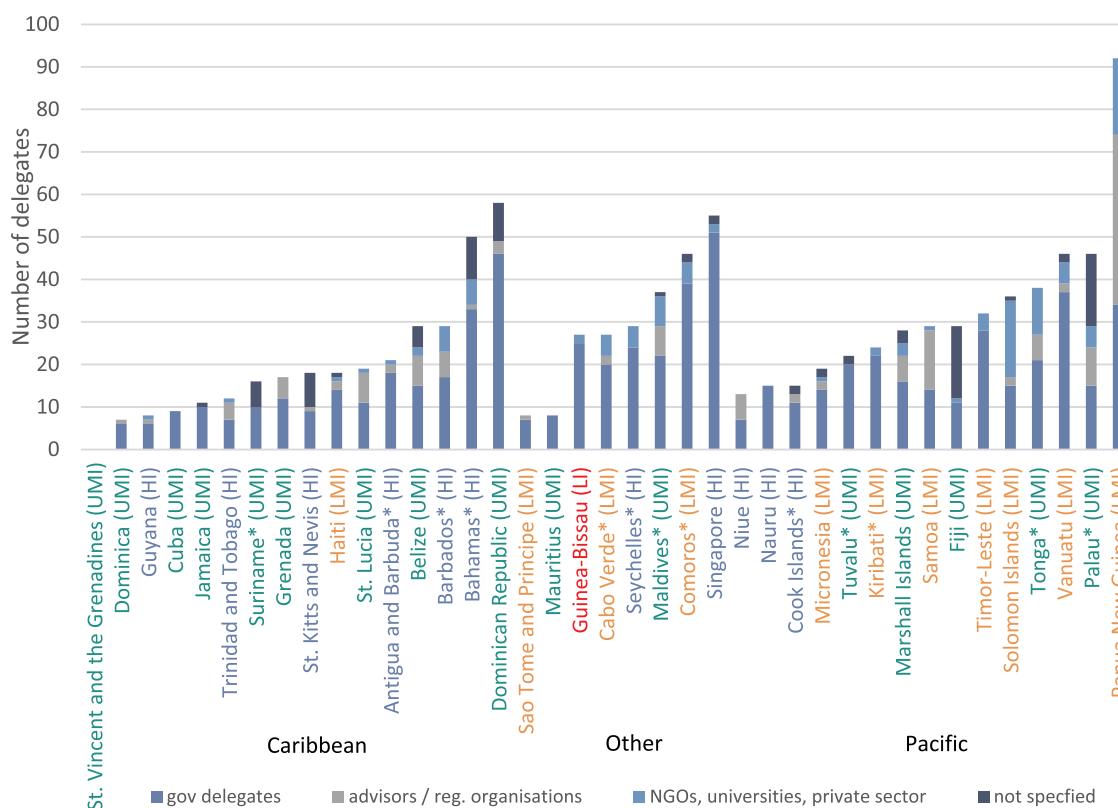


Figure 1. Delegation size and composition for AOSIS member states at COP27, by region. Asterisk (*) denominates countries with heads of state or government at COP27. Based on official list of participants. Colours refer to countries' income level (HI = high income; UMI = upper middle income; LMI = lower middle income; LI = low income).

bring civil society representatives, as the voice of the most vulnerable and an 'all-country approach' (Pacific delegate, 18 November 2022).

Interestingly, the size of island countries' delegations do not seem to be driven by the countries' size or wealth. As shown in Figure 1 and more generally in Table A1 in the appendix, the SIDS with the largest delegations are not necessarily the ones with a higher income classification, nor the ones with the largest population. Also, higher vulnerability levels or English as an official language do not seem to be related to delegation size.

4.2. Participation inside the negotiations

Larger delegations are in principle better positioned to actively follow and engage in multiple negotiation streams – but we don't find larger delegations to necessarily be more active inside negotiation rooms. We overall note that islands work mainly through AOSIS, as expected. Yet we also note that key negotiators from a handful of islands drive that AOSIS participation. Other islands are much less visible (AIS delegate, 16 November 2022) – though they could admittedly be (more) active behind the scenes. Finally, some island states work more with other coalitions; for example, Papua New Guinea often spoke for the CfrN, while Timor-Leste spoke on behalf of the Least Developed Countries.

The ENB negotiation summaries clearly indicated that some island states are much more actively involved in the technical negotiations than others. Ten different AOSIS members are specifically mentioned in ENB summaries (excluding the

high-level segment/leaders' summit, where most Parties intervened individually): Antigua and Barbuda, Bahamas, Belize, Maldives, Papua New Guinea, Singapore, Saint Kitts and Nevis, Trinidad and Tobago, Tuvalu and Vanuatu. Antigua and Barbuda chaired AOSIS at the time of COP27, so it is unsurprising that they often took the floor on behalf of the group. Papua New Guinea is mentioned twice, each time speaking for the CfrN. Saint Kitts and Nevis, Singapore, Tuvalu and Vanuatu are reported to take the floor in their capacity as individual countries, on specific issues: article 6.4 for Saint Kitts and Nevis and Singapore, and a fossil fuel non-proliferation treaty for Tuvalu and Vanuatu.

Beside the states explicitly mentioned in the ENB, we also heard Dominica, Dominican Republic, Guyana, Palau or Jamaica intervene. In the conference streams that we followed, we saw AOSIS being represented not only by its current chair, Antigua and Barbuda, but also by delegates from Barbados, Belize, Dominican Republic, Jamaica, Maldives and Trinidad and Tobago. Beyond those taking the floor, we also noted that more island states tended to be present in the negotiation rooms, even if they remained silent. We noticed that some AOSIS countries were rarely seen in the negotiation room, particularly French-speaking and Portuguese-speaking members. Those islands that were present often sat together in groups, consulting and interacting during the negotiations, highlighting again the key role of coordination within AOSIS.

Despite coordination, small countries are challenged by the multiple parallel meetings, including on the same issue area. The climate finance agenda for example was particularly

heavy and included several items and corresponding contact groups. Accordingly, the finance negotiators still had to make decisions on which (sub-)items to follow. In the session on Guidance to the Green Climate Fund/Global Environment Facility (7 November 2022), the AOSIS negotiator thus complained about their lack of representation in negotiations on the Standing Committee on Finance prior to COP and their inability to provide written input. As a result, the draft document was not representative of all Parties. Even much larger and richer states faced similar problems during COP; Canada and Switzerland noted at some point that they could not provide written input in time, because they had ‘no one to do it’ (field notes, 15 November 2022).

Another indicator of active engagement in the negotiations is serving as a chair or facilitator of a contact group. Here, some AOSIS members were also very active: negotiators from Antigua and Barbuda, Barbados, Belize, Grenada, Maldives, Papua New Guinea, Singapore, Trinidad and Tobago, and Tuvalu served as co-facilitators of various contact groups, especially on adaptation and finance issues. These delegates are all very experienced and senior, sometimes at the level of minister or ambassador.

Overall, the ENB summaries and our observations confirm that individual negotiators, who are often extremely experienced and personally engaged, really drive AOSIS participation in the negotiations. As a Caribbean delegate explained ‘it really is about individuals and how engaged they are [in our delegation]’ (8 November 2022). AOSIS itself recognizes the influence of individuals, as for example a Twitter post from 2nd November shows (Figure 2(a)), which reads ‘Some of our strongest and most influential voices on #ClimateChange joined us for day 2 of our prep meetings for COP 27. At our session this morning Espen Ronnenberg (Marshall Islands), Carlos Fuller (Belize), Kishan Kumarsingh (Trinidad & Tobago), Una

May Gordon (Jamaica) and Ricardo Marshall (Barbados)’. We should here also mention Mia Mottley, prime minister of Barbados. While not involved in the technical negotiations, she has become a key voice of AOSIS. She was even invited to speak at the formal opening of the high-level segment, alongside the Egyptian president Al-Sisi, UN Secretary General Guterres, and Emirati president Al-Nahyan, who will host COP28.

4.3. Beyond the negotiations

The technical and political negotiations are a key element of COPs – but COPs have become much larger (Obergassel et al., 2022). In Sharm El-Sheikh, the ‘negotiation zone’ was at the very end of the venue, and comparatively small; much larger and more visible was the ‘pavilion zone’, including space for official side events, the capacity-building hub, media areas, and similar.

Pavilions – spaces for individual countries, institutions and other entities to display their climate-related activities and to organize events – have become a central part of COPs. At COP27, there was a record number of pavilions, including six island pavilions. Both major island regions – the Pacific and the Caribbean, have had their own pavilions for the past COPs: the Moana Blue Pacific pavilion, organized by the Pacific islands under the leadership of the South Pacific Regional Environmental Programme (SPREP) and funded by New Zealand on the one hand, and the CARICOM pavilion on the other. Papua New Guinea had a pavilion through the CfrN, and with financial support from Ernst & Young. Additionally, and for the first time, Singapore, the Dominican Republic and Saint Kitts and Nevis each had their own pavilions.⁵ These pavilions require resources, but they provide visibility. ‘We [islands] are small, so it’s hard to be heard’, explains a Pacific delegate (18 November 2022). In fact, as a Caribbean

A

AOSIS @AOSISChair · Nov 2

Some of our strongest and most influential voices on #ClimateChange joined us for day 2 of our prep meetings for #COP27.

At our session this morning Espen Ronnenberg 🇧🇮, Carlos Fuller 🇧🇪, Kishan Kumarsingh 🇹🇹, Una May Gordon 🇯🇲 and Ricardo Marshall 🇧🇧

#WeNeedLDFinance
#SIDS



12 44

B

Riad Meddeb Retweeted

AOSIS @AOSISChair · Nov 7

AOSIS Chair Prime Minister @gastonbrowne 🇳🇮 and Prime Minister @miaamottley 🇧🇧 have arrived in Egypt in time for the World Leaders Summit of #COP27.

Both their voices have become some of the most commanding on the issue of #climatejustice for island nations.



Simon Stiell and 7 others

2 29 59

Figure 2. Examples of tweets by the AOSIS Chair.

delegate adds, many COP participants may not even know that the country exists (8 November 2022).

Pavilions also allow the organizers to bring attention to specific topics, by means of pavilion events on those topics. Having several island pavilions was thus seen positively, in particular the separate Pacific and Caribbean pavilions: it allowed more events on topics of concern (Caribbean delegate, 8 November 2022). This was also the reason for individual islands to organize their own pavilion: it provides the organizers with more flexibility on their programme (AIS delegate, 16 November 2022). At the same time, pavilions are also a venue to network and exchange, and as such are a useful support to negotiators: they provide a space for negotiators to meet and mingle, to relax, and to have some office space (Caribbean delegate, 8 November 2022; Pacific delegate, 18 November 2022).

There is no central platform for all pavilions, and the hundreds of events taking place at the different pavilions. While we do not have an overview of which islands organized or spoke at pavilion events, we have that information, however, for the official side events, as well as for press briefings.

AOSIS members were quite active in the official side events managed by the UNFCCC secretariat. 11 island states were involved as co-convenors of side events on a range of topics, including finance (Bahamas, Belize and Saint Lucia), Article 6 capacity building (Dominica and Seychelles), adaptation and resilience (Palau and Saint Kitts and Nevis), REDD+ (Papua New Guinea), oceans and Nationally Determined Contributions (Fiji), transparency (Grenada), and climate justice (Vanuatu). But beyond organizing side events, island representatives were often invited to share their experiences and give their views at side events. Particularly active were Seychelles, with six side event participations, Dominican Republic and Marshall Islands (five side events each), Belize, and Saint Lucia (four side events). Also in this context, high-level and experienced delegates, such as Orlando Habet (Minister of Sustainable Development, Climate Change and Disaster Risk Management of Belize), Kishan Kumarsingh (Head of the Multilateral Environmental Agreements Unit at the Ministry of Planning and Development of Trinidad and Tobago) or Tina Stege (Climate Envoy of the Marshall Islands) appeared frequently as speakers representing small island states.

Official press briefings were not used very much by AOSIS during COP27, although island negotiators may have joined and spoken at other organizations' press briefings, such as Vanuatu at a Climate Action Network International press briefing (17 November 2022). Only five AOSIS members organized an official press conference: Barbados, Guinea-Bissau, Maldives, Marshall Islands and Vanuatu. Two of the press conferences were sponsored by non-governmental actors, one on vegan diet by Guinea-Bissau, and the other on adaptation by the Maldives.⁶

These events and briefings provide a platform to showcase domestic action and bring attention to specific issues, but they also link participants to what is happening in the negotiations. At the side and pavilion events we attended, island representatives actively made demands for the negotiations, notably on access to finance, and the dedicated funding mechanism for loss and damage. For example, Tuvalu on several occasions explained that a work programme to establish a loss and damage fund over the next two years would be the measure

of success: 'If we get that agreement, this COP is successful' (pavilion event, 8 November 2022). On the other hand, island states also used such events to present themselves as leaders. Examples include carbon accounting in the Caribbean (official side event, 11 November 2022), oceans and integrating blue carbon in national climate action plans (Maldives, press briefing, 16 November 2022), or the proposal for a nuclear non-proliferation treaty, an initiative endorsed by Vanuatu and Tuvalu (pavilion event, 11 November 2022).

Social media similarly accompanied the official negotiations. Unsurprisingly, the same key negotiators that we already mentioned were quite present on social media, notably Twitter. The AOSIS chair is quite active on Twitter (@AOSIS-Chair) and Instagram (@aosis_chair), as are some key negotiators. They used the platform to voice key demands, report on negotiation progress (and deadlock), and document the relentless engagement and presence of the island negotiators we could also observe in the negotiation rooms (see e.g. the tweets in Figure 2). Much of this social media activity focused on islands as a group, such as when the AOSIS chair tweeted that 'Egypt is failing to deliver on the promise for island nations [...]' (17 November 2022), adding later that day that 'the addition of the agenda item [on funding for loss and damage] should go beyond mere symbolism. We did not travel to Egypt for a performance' (17 November 2022). Individual negotiators are also sometimes mentioned, including those who are themselves active on Twitter, and who often retweet what the AOSIS Chair posts, and are in turn cited and retweeted by the AOSIS Chair.

5. Island States and COP27: discussion and conclusion

Regardless of whether we consider mere presence, participation in the negotiations or beyond: island states marked COP27. Not only were they present in large numbers (e.g. in terms of number of delegates and of pavilions), but they also bargained hard. Indeed, AOSIS *collectively* was influential at COP27. This is most notable with regard the loss and damage fund that was agreed, arguably one of the most important decisions to come out of COP27. Already, the last-minute addition of an agenda item on 'Matters relating to funding arrangements responding to loss and damage associated with the adverse effects of climate change, including a focus on addressing loss and damage' was a result of heavy lobbying by AOSIS and other developing countries. AOSIS has insisted on such funding for thirty years; just having this agenda item was already an achievement, and an agreement to establish a dedicated fund was a historic decision and breakthrough, as AOSIS itself said in the final plenary. For AOSIS, this decision was a measure of success or failure for COP27 (field notes, 8 November 2022).

But AOSIS' heavy lobbying, whether on loss and damage or other agenda items, is unequal across its member states, and much of its influence can be traced back to a subset of its members, and especially some key negotiators within the coalition. This is not to deny the *collective* influence of AOSIS – a key aspect of the group's success is the fact that it represents 39 member states and remains committed to speaking with one

voice (Betzold, 2010; de Águeda Corneloup & Mol, 2014). However, it would be too simplistic to only understand AOSIS as a collective actor; AOSIS is not a homogeneous group. There are stark differences within the group, including, as we have argued, the extent to which they are present and active.

Why are some islands more active than others? We here highlight some factors that are worth exploring further.

First, the fact that only some islands intervene in the negotiations is a deliberate choice: AOSIS, like all coalitions, helps to structure and simplify the negotiations, such that negotiation groups rather than individual countries interact (Dupont, 1996; Klöck et al., 2021). Accordingly, and as we can observe in other groups such as the African Group of Negotiators (Chin-Yee et al., 2020), AOSIS members coordinate among themselves and divide the labour, or rather, the agenda items, ahead of COP. For instance, on matters related to science and review and to the global stocktake under the Paris Agreement, only a small number of CARICOM countries actively contributed to the discussions: Trinidad and Tobago, Antigua and Barbuda, Saint Kitts and Nevis, and Saint Lucia – they were the same that had been engaging with those agenda items in previous SB and IPCC meetings in 2022.

Second, the engagement of individual AOSIS members typically reflects the commitment and engagement of individual negotiators. Indeed, Corbett et al. (2021, p. 73) conclude for international organizations (IOs) in general that ‘Invariably, whenever small states play a significant role in an IO’s deliberations it is because a diplomat from one of these countries is prepared to dedicate time and effort to making it work’. Individuals have not been central to the study of multilateral negotiations (Boasson, 2018), although they are critical to understand negotiation dynamics (Dodds & Spence, 2022; Vihma & Kulovesi, 2013, p. 248), particularly for smaller countries, whose profile can be raised by a senior and skilful diplomat with extensive (UN) experience, a strong network and personality (Falzon, 2021; Gupta, 2000; Jones et al., 2010; Page, 2003). These key negotiators often also serve as chairs or co-facilitators of meetings such as contact groups, which provides them with additional leverage. Chairs, while formally neutral, can be assertive and have ‘a significant, positive or negative, influence on the process and the outcome of negotiations’ (see also e.g. Chasek & Wagner, 2012; Spyros & Bourantonis, 2011, p. 4f). Just as some larger countries (Depledge, 2008; Dessai, 2004), some islands make a special effort to send their most senior and most able negotiators, and to send the same people over time (Carter, 2018; Kjellén, 2013). For CARICOM, Brandouille (2023) even writes that ‘placing CARICOM representatives in leadership and senior posts in international organizations has been a long-standing feature of CARICOM foreign policy’. With Simon Stiell, a Grenadian national, an islander has now taken on the position of Executive Secretary of the UNFCCC. Whether and if so, how, this may advance the island agenda, remains to be seen.

Third, and even if small island states are all disproportionately affected by climate change, they are not all affected equally. Accordingly, they have different areas of interests. Papua New Guinea, for example, is a densely forested country and so focuses much of its activism in the climate negotiations on the Cfrn and questions around forestry and land use

change, which are of less concern to many other islands with much smaller land areas. Similarly, Singapore, as a city-state with a large harbour and industry has a keen interest in the shipping sector, innovation, and carbon markets, hence their own pavilion that allowed the country to focus on these areas of interest.

Fourth, even though simply looking at general wealth indicators – such as income classification or income per capita – is not sufficient to fully explain presence and participation of island states at COPs, differences in financial resources and capacities also help to explain disparities in involvement. Singapore has the resources to fund their pavilion. In contrast, many island states depend on external resources even just to be able to come to COPs and organize pavilions or events there. We already mentioned the support of Ernst & Young for Papua New Guinea and the Cfrn (including its pavilion), that of New Zealand for the Pacific Moana Blue Pacific pavilion, and that of Taiwan for the Saint Kitts and Nevis pavilion. Similarly, the press briefing by Guinea-Bissau (that is not very present overall) was sponsored by private actors from Taiwan. Many delegates similarly had their participation funded through external partners, and sometimes only got that funding confirmed shortly before COP. Presence, and partly participation, is thus conditional on the availability of funding. Both during our observations and in the summaries published by the ENB, we noted that Caribbean delegates were more active than those from the Pacific or the Indian Ocean in the negotiation rooms, as speakers for AOSIS, and in organizing and speaking at side events. This may be related to the fact that Caribbean countries have, on average, a higher income and therefore more resources than those in the other AOSIS regions.⁷

But non-financial resources also matter, notably language skills. We already mentioned the relative absence of Portuguese and French-speaking islands, whose negotiators may not be comfortable in an English-speaking environment, particularly in the negotiation setting where words matter and where the language is rather technical. Language is thus a clear barrier to participation in the negotiations (e.g. AIS delegate, July 2022; AIS delegate, 12 November 2022).

Overall, as we have shown, islanders made themselves present and their voices heard in the halls of power throughout COP27, within and beyond the formal negotiations. Despite the *collective* engagement and influence of AOSIS, we should not forget about differences within the coalition. Our analysis of COP27 clearly shows that presence and participation vary across island states, and that this partly reflects heterogeneous capacities and interests, but also a certain level of specialization and division of labour within AOSIS. Moreover, our results emphasize the crucial role that committed and experienced individuals play for the success and prestige of the group – either as negotiators, or facilitators, or speakers at events beyond the negotiation rooms. These individuals also help to push institutional innovation and introduce new ideas. The introduction of the 1.5°C target and the loss and damage framework, the proposition of a reform of the financial system (the Bridgetown Initiative by Barbados) or the call for a fossil fuel non-proliferation treaty (by Tuvalu and Vanuatu) are key examples of how island states have sought (and sometimes

succeeded) to infuse the debate with novel proposals to tackle the root causes of the climate problem.

Notes

1. The 39 member states of AOSIS are: Antigua and Barbuda, Bahamas, Barbados, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago in the Caribbean; Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Republic of the Marshall Islands, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu and Vanuatu in the Pacific; and Cabo Verde, Comoros, Guinea Bissau, Maldives, Mauritius, São Tomé e Príncipe, Seychelles and Singapore in the African, Indian Ocean and South China Sea (AIS).
2. 3.5 days for a single trip means one week of travel for the return trip, plus one week of pre-COP and two weeks of COP.
3. From the list of participants, we do not know whether delegates stayed for the full duration of the COP, or only attended (for parts of) week 1 or week 2.
4. Haiti and São Tomé e Príncipe were the only AOSIS delegations without ministers. Prime Minister Mark Brown of Cook Islands was at COP27 (Islands Business, 2021), but is not listed on the official list of participants.
5. Taiwan sponsored the Saint Kitts and Nevis pavilion, and had sponsored the Tuvalu pavilion at COP26.
6. The press conference by Guinea-Bissau featured two speakers from Taiwan and a video message from Ching Hai, a multimillionaire based in Taiwan promoting vegan diet (Sutton, 2018). The press conference by Maldives was co-organised with the Stockholm Environment Institute.
7. All Caribbean SIDS except Haiti, an LDC, are classified as high income or upper middle-income countries by the World Bank, whereas only half of Pacific island states (excluding the Cook Islands and Niue, for which data is unavailable) and less than half of the African and Indian Ocean islands are. See Table A1 in the Appendix.

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No potential conflict of interest was reported by the author(s).

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Appendix A

Table A1. Delegation size at COP27 and country characteristics for AOSIS member states.

Country	Population (thousand)	GDP/capita (constant 2015 US\$)	Income group	Language	Vulnerability (ND-GAIN)	Delegation size	Government	Advisors / reg. org.	NGOs, research, private sector	Not specified
Caribbean										
Dominican Republic	11,229	19,338	Upper middle	Spanish	47.2	58	46	3	0	9
Bahamas*	410	34,197	High	English	48.8	50	33	1	6	10
Belize	405	9698	Upper middle	English	43.9	29	15	7	2	5
Barbados*	282	15,107	High	English	57.5	29	17	6	6	0
Antigua and Barbuda*	94	21,458	High	English	49.1	21	18	2	1	0
Saint Lucia	180	15,038	Upper middle	English	52.9	19	11	7	1	0
Saint Kitts and Nevis	48	28,839	High	English	54.7	18	9	1	0	8
Haiti	11,585	2799	Lower middle	French, Haitian Creole	35.5	18	14	2	1	1
Grenada	125	14,387	Upper middle	English	54.8	17	12	5	0	0
Suriname*	618	14,922	Upper middle	Dutch	47	16	10	0	0	6
Trinidad and Tobago	1531	23,526	High	English	48.6	12	7	4	1	0
Jamaica	2827	10,012	Upper middle	English	48.9	11	10	0	0	1
Cuba	11,212	no data	Upper middle	Spanish	46.2	9	9	0	0	0
Guyana	809	34,420	High	English	45	8	6	1	1	0
Dominica	73	11,495	Upper middle	English	53.5	7	6	1	0	0
Saint Vincent and the Grenadines	104	14,573	Upper middle	English	no data	0	0	0	0	0
Atlantic, Indian Ocean & South China Sea										
Singapore	5637	108,036	High	English, Malay, Mandarin Chinese, Tamil	71.5	55	51	0	2	2
Comoros*	837	3246	Lower middle	French, Arabic, Comorian	38.1	46	39	0	5	2
Maldives*	524	20,979	Upper middle	Dhivehi	45.8	37	22	7	7	1
Seychelles*	100	29,835	High	English, French, Seychellois Creole	50.8	29	24	0	5	0
Guinea-Bissau	2106	1855	Low	Portuguese	32.5	27	25	0	2	0
Cabo Verde*	593	7692	Lower middle	Portuguese	51.2	27	20	2	5	0

(Continued)

Table A1. Continued.

Country	Population (thousand)	GDP/capita (constant 2015 US\$)	Income group	Language	Vulnerability (ND-GAIN)	Delegation size	Government	Advisors / reg. org.	NGOs, research, private sector	Not specified
Sao Tome and Principe	227	4013	Lower middle	Portuguese	42.7	8	7	1	0	0
Mauritius	1263	22,787	Upper middle	English, Mauritian Creole	57	8	8	0	0	0
Pacific										
Papua New Guinea	10,143	3766	Lower middle	Tok Pisin, English, Hiri Motu	36.8	92	34	40	18	0
Vanuatu	327	2786	Lower middle	English, French, Bislama	41.4	46	37	2	5	2
Palau*	18	13,786	Upper middle	English, Palauan	47.1	46	15	9	5	17
Tonga*	107	6143	Upper middle	English, Tongan	41.1	38	21	6	11	0
Solomon Islands	724	2248	Lower middle	English	39.8	36	15	2	18	1
Timor-Leste	1341	4089	Lower middle	Portuguese, Tetum	43.7	32	28	0	4	0
Samoa	222	5116	Lower middle	English, Samoan	46.6	29	14	14	1	0
Fiji	930	11,963	Upper middle	English, Fijian, Fiji Hindi	51.2	29	11	0	1	17
Marshall Islands	42	6121	Upper middle	English, Marshallese	39.6	28	16	6	3	3
Kiribati*	131	2003	Lower middle	English, Gilbertese	no data	24	22	0	2	0
Tuvalu*	11	4591	Upper middle	Tuvaluan, English	no data	22	20	0	0	2
Micronesia	114	3265	Lower middle	English	37.2	19	14	2	1	2
Nauru	13	11,110	High	English, Nauruan	45.6	15	15	0	0	0
Cook Islands*	no data	no data	High	English, Maori	no data	15	11	2	0	2
Niue	no data	no data	High	English, Niuean	no data	13	7	6	0	0

Notes: Asterisk (*) denominates countries with heads of state or government at COP27. Based on official list of participants. Data on population, GDP per capita and income group is from (World Bank, 2022). Vulnerability is measured by the Notre Dame Global Adaptation Index, where lower numbers indicate higher levels of vulnerability (ND-GAIN, 2022). Data on delegation size and composition is from the official list of participants.