Evaluating the Effectiveness of International Climate Funding on a National Level: - The Case of the Adaptation Fund's Project in Georgia

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Evaluating the Effectiveness of International Climate Funding on a National Level

- The Case of the Adaptation Fund's Project in Georgia

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Abstract

This thesis researches the effectiveness of climate finance by observing the Adaptation Fund (AF), an international climate fund operationalised in 2007. Using qualitative analysis of the AF's project in Georgia it asks: *"How did the Adaptation Fund influence climate policy in Georgia?".* To answer the research question, this thesis researches the effectiveness of the project in Georgia, with three factors that are considered key components of determining an effective national climate finance policy. While different definitions exist in defining effectiveness, this thesis investigates the project through Bird *et al*'s three factors— *policy environments* that support climate change investment, *institutional foundation* which distribute responsibility, and the *national financial system*.

Based on the AF's project documents and a semi-structured interview, this thesis uses a process-tracing method to test the three factors, and finally demonstrates how the AF's project "effectively" influenced the climate policy in Georgia.

Keywords: *climate finance, climate fund, Adaptation Fund, policy environment, institutional structure, financial system, Georgia, flooding prevention.*

List of Abbreviations

AF	**Adaptation Fund**
AFB	**Adaptation Fund Board**
CO2	**Carbon Dioxide**
COP	**Conference of the Parties**
CSO	**Civil Society Organisations**
EU	**European Union**
FFEWS	**Flood Forecasting Early Warning System**
FRM	**Flood Risk management**
GA	**Green Alternative**
IAWG	**Inter-Agency Working Group**
NEA	**National Environment Agency**
NGO	**Non-Governmental Organisation**
MEPA	**Ministry of Environmental Protection and Agriculture**
MOE	**Ministry of Environment**
MTER	**Mid-Term Evaluation Report**
MRDI	**Ministry of Regional Development and Infrastructure**
MENRP	**Ministry of Environment and Natural Resources Protection**
PPR	**Project Performance Reports**
RRB	**Rioni River Basin**
TER	**Terminal Evaluation Report**
TOR	**Terms of Reference**
UNDP	**United Nations Development Programme**
UNEG	**United Nations Evaluations Group**
UNEP	**United Nations Environment Programme**

UNFCCC	**United Nations Framework Convention on Climate Change**
USD	**United States Dollar**

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1. Introduction

Effective climate finance is crucial to mitigating and adapting to the effects of climate change. Climate finance governance is now considered an essential part of the future international climate regime, as it can provide feasible adaptation and mitigation strategies for tackling climate change (Ballesteros et al. 2009; Nakhooda, 2008; UNFCCC, 2007; Urpelainen 2012, 15). To understand climate finance and the effectiveness of a climate fund, this thesis conducts single case research on the Adaptation Fund (AF)'s project in Georgia. The AF is a climate fund that was established during the 7th Conference of the Parties (COPs) in Marrakech, Morocco, 2001. It is operationalised through the Kyoto Protocol, under the decision 10/CP.7, and is a financial entity under the UNFCCC, (Remling and Persson 2015, 16; UNFCCC 2001). To this date, it has financed 123 projects in over 120 countries, allocating 850 million USD to help vulnerable communities adapt to the urgent needs, through issues such as the food and water insecurity, deforestation, and disaster risk reduction (AF 2021).

The AF enacts its projects with specialised implementation organisations of the United Nations (UN), such as the United Nations Environment Programme (UNEP), and the United Nations Development Program (UNDP). Furthermore, the World Bank acts as a trustee, ensuring financial support, and legitimising the accreditation process (AF 2021). There are other international climate funds, such as the Green Climate Fund (GCF) and the Green Environmental Facility (GEF) operating with an international entity. However, during the time of writing, the GCF has no completed projects, and the GEF lacks publicised data (GCF 2021; GEF 2021).

On the contrary, the AF has active academic research conducted upon the fund, and it has transparent project documents which allow further analysis. Among the 23 completed projects of the AF, this thesis investigates the project in Georgia, due to the involvement from an international entity, the UNDP, with a "medium-large scale" funding according to the AF's

standards (AF 2021). With the UNDP as the implementing entity, the Georgian government as the executive entity, and the AF as the financial entity, I see a triangulation of roles in the development of climate finance policy, which can be studied.

Furthermore, the Georgian case is a typical case to examine, out of the 123 projects the AF has operationalised, carrying out its projects under its project result framework, and the evaluation framework (AF 2012; AF 2021; AF 2021).

Given the context, this thesis investigates how the AF affected Georgia's climate policy development. It remains a question whether the development of such a climate fund, alongside the implementation and executive entity, allowed the AF to tackle a context-specific climate crisis. Hence, this thesis will answer the following research question:

"How did the Adaptation Fund influence climate policy in Georgia?"

To answer this question, this thesis assesses the project through a framework based on the findings by authors Bird, Tilley, Trujillo, Tumushabe, Welham and Yanda (2013). This framework investigates climate finance's impact on a national level and utilises Bird *et al*'s three main criteria—*policy environment, institutional foundation, national financial system to* determine its effectiveness.

This thesis essentially answers the research question supporting that the AF's project in Georgia successfully influenced the climate policy in Georgia, by analysing the project according to Bird *et al*'s criteria. It analyses both the success factors and areas that fell short in the project delivery. By employing a process-tracing method in combination with a single semi-structured interview, it supports how the project delivered a successful result. I support my claims by analysing the empirical evidence within the AF's internal project documents, external evaluation reports, and a semi-structured interview.

Analysing the case through Bird *et al*'s framework tests the effectiveness of such a project within a specific social, political, and financial environment. However, if the case proves to be a typical case that it claims, this can be applied to research wider range of cases, adding to the academic studies on how climate funds can improve its effectiveness. Furthermore, proving the validity of the framework makes it suitable for policymakers when executing adaptative projects.

This thesis is organised as follows. In Section 2, I provide a literature review and the theoretical framework. Section 3 outlines the research design used to analyse the case study, and Section 4 performs the analysis with the developed theoretical framework and the chosen data method. Section 5 concludes with key lessons learned.

2. Literature Review and Theoretical Framework

2.1. Literature review

As the development of climate finance is relatively new, academic research on its effectiveness is still in progress. In analysing the relevant literature, this thesis identifies three key strands of research: research on climate finance, the evolution of adaptive policy, and the assessment of the AF's effectiveness. To do so, I first introduce how academics define the term "effectiveness", and the definition within this thesis. Afterwards, I introduce the current academic research on climate finance. Then, I discuss the evolution of adaptative policy, mapping out how adaptative policies, including climate finance, is discussed within academia. Lastly, I review the academic studies on the AF.

Measuring the "effectiveness" of a policy is complicated as there can be numerous ways of defining the term. It is a contested topic in the field, where the lack of set definitions prevents a standardised assessment of climate change policies (Burton 2004, 2). Several researchers argue that successful policy development is undermined by the overlaps between different multilateral funds and their distinct methods in assessing the policies with diverging scopes, and methodologies (Romando et al., 2018; Bird et al., 2013; Sherman et al., 2016). A few definitions of effectiveness include, satisfying local needs (Calland and Reddy 2013), by maximising the climate returns (Chaum et al. 2012), the disbursement mechanisms, the availability of the funds (Romano et al. 29) and monitoring project outcomes (Ellis et al. 2013). As this thesis focuses on assessing effectiveness on a local level, I adhere to the definition identified by Bird *et al*, a widely acknowledged framework from different authors in the field (Romano et al. 2018, 30, Ellis et al. 2013, 18; Barret 2013, 1820). This framework defines that an effective policy is one that builds a solid policy environment, institutional framework, and a national financial system. They argue that a climate finance policy can be determined (in)effective, according to these three criteria.

With the definition in mind, I first cover the studies on climate finance. Research on climate finance reveals that some academics question its ability to mitigate climate change—they particularly question the impact that a small number of funds can have on national organisations (Colenbrander, Dodman and Mitlin 2018). Other researchers question the effectiveness of climate finance's international mandates, as international and domestic factors can impede finance delivery (Romano et al. 2018, 8). Such factors include conflicts in international negotiations, and the lack of scientific knowledge needed for drafting effective climate policies (Fenton, Wright, Afionis, Paavola & Huq 2014; Gampfer, Bernauer & Kachi 2014, 120; Hudson and Mosley 2008). The key to improving climate finance delivery is a combination of structure-enhancing national policy reforms and international mandates through multilateral agreements (Pickering and Mitchell 2017, 107). While policy changes are mainly domestically driven, regional/international factors such as pressure from neighbouring countries can also be influenced (ibid.). These external/internal factors, in combination with adequate financial disbursement cycles, are pivotal in increasing the effectiveness of climate finance policy.

Compared to climate finance, research on adaptative policymaking (my second key strand of research) is more abundant. In recent decades, scholars have moved towards examining the obstacles that limit adaptative policies instead of identifying functional policy processes (Adger et al. 2007; Dupuis and Knoepfel 2013, 1). The biggest obstacle to adaptative policies in developing countries is that their political, and economic conditions are unsuitable for such policies, as they often have a weak economic infrastructure and high social inequity (Sherman et al. 2016, 722; Gagnon-Lebrun and Agrawala 2007; Wolf 2011; Yohe et al. 2006). This hinders many states from implementing transformative policy changes that allow adaptation to climate change.

Additionally, the unpredictability of scientific knowledge—for instance, the complexity of the earth's ecosystems—hampers the scalability of effective policymaking (Wilby and Dessai 2010; Hulme 2005). Adaptative policies are still developing, and require more successful examples, especially in developing countries (Butler et al. 2016; Dupuis and Knoepfel 2013; Sherman and Ford 2014). Additionally, local context-based limitations make it complicated to draft policies that work across different socio-political conditions (Adger et al. 2009).

Turning to the last strand of research, one can see various research on the AF. One comparative study evaluated the AF's 63 indirect/direct access fund projects, and their effects on local communities (Manuamom and Biesbroek 2020). This study outlined the importance of direct-access modality projects in enhancing community-oriented finance, participation, and devolution (ibid.). Researchers also expanded upon the barriers that climate adaptation policies face in operationalising adaptation needs; notifying the gaps in public data that hinder the development of an effective equity policy (Persson and Remling 2014). In addition, scholars have identified the AF's problems with distributive justice, and communication between developed and developing countries (Ford, and Lesnikowski 2020; Grasso 2011; McGinn and Isenhour 2021). Academics also question the legitimacy of the AF's fund allocation, and the efficiency of the AF Board (Mori, Rahman, and Uddin 2019). The fundamental problem is in its negotiation processes between the developed and developing countries, while some states take conflicting stances toward making institutional and financial policies which prevents resilient mitigation and adaptation assistance.

To summarise the literature studied, this literature review analysed three strands of research—climate finance, adaptative policy making, and the studies on the AF. Drafting climate finance policy is complex when there are diverging ways of measuring effectiveness. Furthermore, implementing adaptative policies is complicated in countries with weak economic

infrastructure or high social inequity. As the academic research on the AF mainly focuses on the financial and organisational constraints, further case studies are required to observe if the fund is (in)effective in operationalising an individual national project. Therefore, this thesis examines the AF's effectiveness through Bird *et al*'s framework, including factors that political scientists can further analyse. A detailed explanation of the set-theoretical framework is illustrated in the next section.

2.2. Theory and Concepts

The below section outlines Bird *et al*'s framework's and further explains the three criteria and the indicators that determine the effectiveness of climate finance delivery in Georgia. This section explains the criteria and its indicators. The methods used to measure the indicators are further explained in section 3 (or reference Annexe 3 for an overview table).

a) Policy Environment

There are four indicators for an ideal policy environment. The first is having an efficient *implementation* process (Bird et al., 2013, 4). An effective policy should have set goals for a specific time frame, with objectives and regulatory measures (ibid., 4; Thomas and Grindle 1990, 1178). Secondly, stakeholders must acknowledge the *legitimacy* of the policies (Bird et al., 2013, 4). *Legitimacy* means the representation of various stakeholders, including those who are affected by the risk of climate change (Burton et al., 2002). In practice, however, the inclusion of all actors on a local level is found to be limited (Bird et al., 4). While the AF strives to involve stakeholders at different levels, this thesis will evaluate the extent of that involvement. Thirdly, the policy developed must be *coherent* with national development policy (ibid.; Nill and Kemp 2009). This means that it must develop policy statements that consider existing national goals (Bird et al. 2013, 5). Lastly,

policies must be transparent; policy formulation and implementation must be available to the public (ibid., 4; Krah and Mertens 2020; Pina, Lourdes and Royo 2010; Onyango-Delewa 2016). Therefore, a policy should have a mechanism outlining how transparency is guaranteed (Bird et al. 2013, 5). This thesis considers these four factors the foundation on which an "effective" *policy environment* is formed. Combined with the evaluation of these four indicators, this thesis determines the effectiveness of the *policy environment* criteria (The grading system is explained at the end of this section). The findings will reveal how the AF's flood management policy delivered tackled producing effective policies.

b) Institutional Foundation

There are four indicators in determining an effective institutional foundation. Combined with all three indicators—*coordination, willingness to change and innovate, focus on the local financial delivery mechanism*— I provide separate grading upon each of the indicators, and determine an aggregate score upon the institutional foundation criteria. Below, I provide an extended explanation of the indicators.

A sound institutional foundation requires *coordination* between the institutions involved in policy delivery (ibid., 6). This means that there must be a collaboration between non-governmental and governmental organisations and produce periodic reports that allow cooperation (ibid., 6; Booth 2010; Flynn 2011). In addition, institutions must show *a willingness to change and innovate* (Bird et al., 2013, 7). With this, the responding government should promote the adoption of the policy, and advocate for further changes to enhance the policy delivery. This could be that the government periodically produces technical reports or action plans, or improves infrastructure to overcome raised constraints (ibid., 6). Finally, institutions need to place a core *focus on local financial delivery mechanisms* (ibid., 6; Bird 2012; Booth 2010, 34). The needs of the local communities must

be reflected in the financial policy delivery, with the cooperation of local institutions (Bird et al., 2013, 6).

c) National Financial System

Budget management is a key element to consider when evaluating a climate finance policy (ibid., 7). To distinguish its effectiveness, one should consider four main elements. These four indicators are the unit of analysis, and the definition of an effective national financial system within this thesis.

First, *policy expenditures* should be executed by the government/organisation system and planned during the budget year (ibid., 8). This implies that departments should follow a monitoring process in mapping the expenditure, validate the delivery of the budget or service, authorise/carry out the payment, and then record the transaction officially (Bird et al., 8). As the AF's project is a cooperative project—with UNDP acting as the implementing entity—I investigate how the AF's budget is used to fund resilient policies, and financial instruments that can assist the Georgian government. This helps in capturing how the AF's intervention in Georgia allowed the national government to tackle the flooding crisis in cooperation with the AF. Secondly, the planned budget should be guaranteed for the given year, where the flow of *finance is monitored and tracked* (ibid., 8). Analysing this factor allows us to investigate how the financial assistance and budget delivery is consistently tracked, and the accessibility for the public to monitor the data. Thirdly, there should be a *reporting and accounting regulation* that keeps track of all the expenses relevant to climate policies (ibid., 9). This factor is an expansion of the previous criterion, which specifically investigates the reporting and accounting practicality of the AF's project. Lastly, *external bodies should audit* the climate-related budget. This requires the budget to adhere to the law and administrative regulations, which assures the financial

rules (ibid.). Through observation of the external audit process—specifically in the financial instruments—I survey how the AF ensured its accreditation process by allowing an external party to access their project.

With these three criteria, this thesis has set the definition and the indicators to determine the AF's project effectiveness in Georgia. With the criteria and its corresponding indicators, this thesis measures the AF's project.

The analyses of the criteria and indicators are conducted through a six-level system, building upon the AF's project criteria (AF 2017, 6; Annexe 1). The six grades are—Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU) (Further reference section 3.3.1 and annexe 1 to see how these grades are given, and what conditions must be fulfilled for the grade; ibid.).

This thesis abides with the AF's six-level system to provide an assessment that is coherent with an already existing system. As mentioned, one of the problems in measuring the effectiveness of climate finance policies was in the numerous methodologies, and scopes academics have used (Romando et al., 2018; Bird et al., 2013; Sherman et al., 2016). Therefore, this thesis abides with the pre-existing grading system with an established methodology and frameworks to avoid such problem.

An additional note before closing this section. Within this thesis, I survey the effectiveness of the AF's project using the above framework. However, this thesis acknowledges that surveying these factors alone cannot explain all the policy failures in a national context, nor does it account for how funds are delivered. Other factors play a role in finance delivery, namely, the scale of government corruption, climate-related economic risks that fluctuate the economic market of a certain country, failed international negotiations that impact the national government, or the climate policies that cover a wide array of projects, from

water management to transforming the national energy system (Fenton, Wright, Afionis, Paavola & Huq 2014; Gampfer, Bernauer & Kachi 2014). Nonetheless, given the fact that climate finance policies have globally only developed in the recent decades, markedly since the Rio Summit in 1992, researching this topic through an already developed framework with a tailored case study analysis allows a more detailed, and an effective approach (Romano et al. 2018, 23).

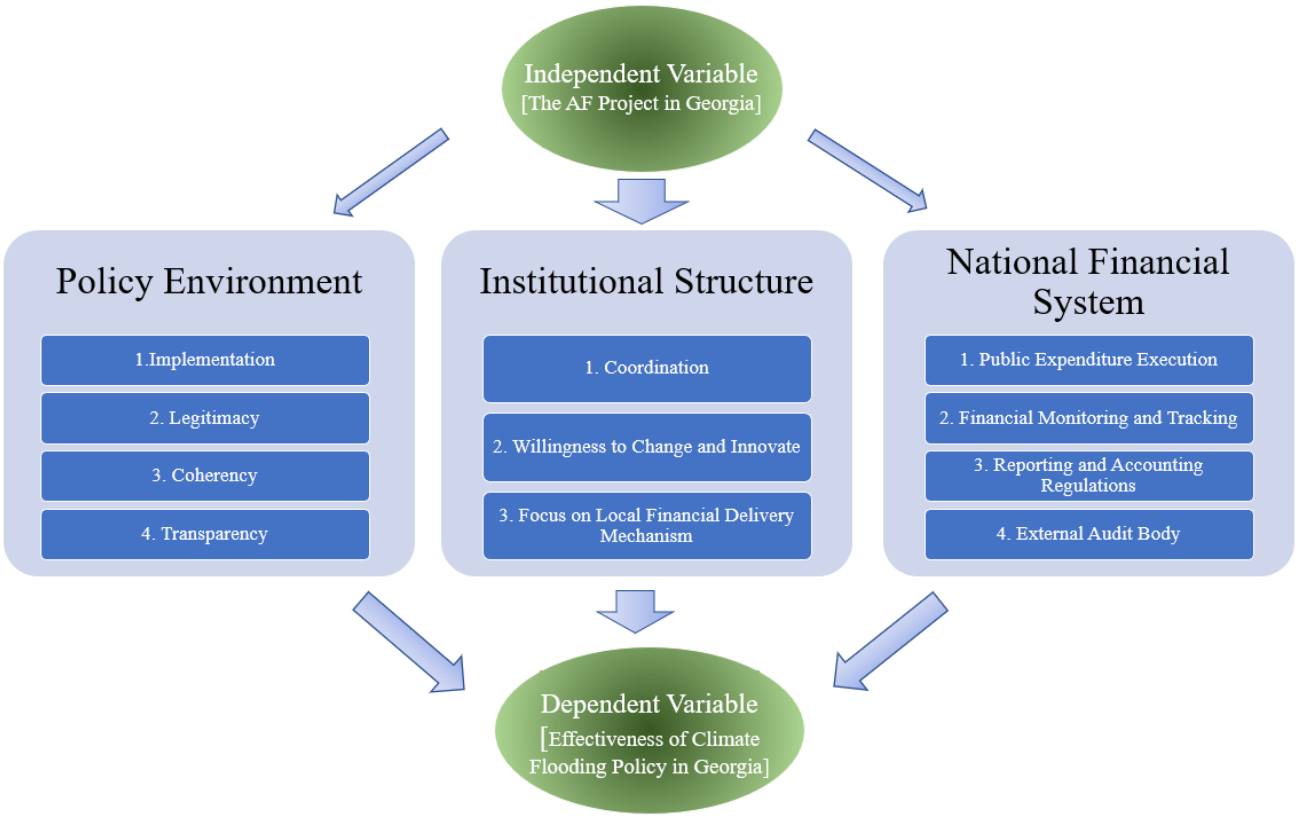
Therefore, this thesis limits its scope to the influence of the policy environment, institutional organisation, and the national financial system and how they affect climate finance policy in reducing the risks from flooding. This focus will demonstrate how international climate funds can impact the policy on the national level.

2.2.1. Variable Map

This section categorises the (in)dependent variables. As observable from the above framework, and the proposed variable map (Figure 1), the final dependent variable of this thesis is the effectiveness of the AF's project in Georgia. In political science, defining the independent, dependent, and intervening variables is crucial. Within the above-mentioned theoretical framework, I have identified the following explanation to map out the variables. The independent variable, the AF project in Georgia, influences the three criteria of Bird *et al*'s framework—national policy environment, organisational structure, and the financial system. These factors influence the dependent variable, the effectiveness of climate flooding policy in Georgia, in the period of 2011, and 2017.

Therefore, this thesis evaluates the effectiveness of the AF's project with the three criteria as the unit of analysis. The analysis is conducted with empirical evidence further explained in section 3.3 and section 3.3.1, providing how the indicators are measured.

Figure 1. Variable Map.



A further note on the variables. In addition to the framework this thesis tests, the analysis will allow the identification of other external variables that influences the dependent variable. This process in seeking external variables allows in acknowledging the other variables that come into play. The falsification of this framework can be done if the three criteria—policy environment, institutional structure, the national financial system— are not the factors that lead to the result of the dependent variable. However, while this thesis identifies other external variables, the scope of the analysis is solely of these three criteria. The other intervening, external variables are outside of the scope. Nonetheless, I will point out these variables, which may be useful for future research.

3. Research Design

This chapter outlines a brief explanation of the project background, and the methodological approach of this thesis, justifying the data used, and the case it supports.

3.1. Research Methods

This thesis employs a process-tracing method to test Bird *et al*'s framework, conducting a small-n qualitative case study. Process-tracing allows: "identifying the intervening causal process-the causal chain and the causal mechanism between an independent variable, and the outcome of the dependent variable" (George and Bennett 2005, 206). This research identifies the process deriving from an independent variable, the influence of the three factors Bird *et al* set and gauge its influence on the dependent variable. Process-tracing uncovers the causal relationship between the variables and identifies the underlying factors between the structural cause and its purported effect (Gerring 2007, 45). It is the only method that outlines the causal mechanism, providing a "strong" within-case inference about the causal process (Beach and Pedersen 2013, 2). By identifying the causal relationship, the analysis supports the thesis's evaluation of the AF's project in Georgia. Therefore, the theoretical framework and the set criteria provide the causal mechanism and show how the AF improved upon the flood management policy. This demonstrates the efficacy of the project.

Furthermore, this single case illustrates a typical case, in the kinds of obstacles it goes through when a climate fund proceeds to implement a climate finance policy on a national level. It shows how the local governments avoid the ownership, take time to implement policies developed, even if the climate fund succeeds in implementing a climate finance policy suited for the national context.

To further provide how the AF effectively operated its project, the remainder of this chapter 3 outlines the project context, data it uses to access the effectiveness of the project, and the criteria and indicators used to analyse the data.

3.2. Case Selection – The Adaptation's Fund's Project in Georgia

Georgia is a lower-middle-income country bordering Eastern Europe, and Western Asia. After the dissolution of the Soviet Union in 1991, the country had limited developments in its economic, environmental, organisational policies (OECD 2017, 19). The mountainous topography of the Caucasian region places the country at risk of hydro-geomorphological processes, and climate hazards related to floods, flash floods, droughts, avalanches (AF, "PPR 1"). With 54% of its land mass only 1,000m above sea level, Georgia is surrounded by melting avalanches, and at risk for flood-related incidents. These events have an annual probability of 50%, and cause damages amounting to over 20% of the country's GDP (ibid.). The annual economic loss is estimated at 4 billion USD (AF 2010, 3).

For example, the flooding in February 1987 in the Tbilisi region affected approximately 36,000 people and caused an economic loss of USD 546 million (ibid.). The communities affected by the escalation of flooding events face frequent economic losses, and the displacement of their livelihoods. Specifically, the Rioni River Basin (RRB) in western Georgia, experienced more frequent and intense hydro-meteorological threats due to climate change; 111 flooding incidents led to losses of approximately 200,000 to 60 million USD, between 1842 to 2008. escalated flooding incidents increased flood insecurity which left the population under displacement (ibid.).

To tackle this issue, the AF implemented its project from 2012 to 2017 (AF 2021), providing a grant of 5.316,500 USD. The implementing entity—the UNDP— provided flood management assistance for the RRB area (ibid.). The project shaped flooding management

regulations, policies, capacity development, community-adaptation measures to the six targeted municipalities of RRB (Ambrolauri, Oni, Lentekhi, Tsageri, Tsklaltubo, and Samtredia AF 2017,3; AF 2014). The AF and the UNDP provided financial, and policy support to the national ministries and their agencies, primarily through the Ministry of Environment, Ministry of Regional Development and Infrastructure, Ministry of Environment and Natural Resources Protection of Georgia, Emergency Management Agency, Forestry Agency, and National Environment Agency. Other stakeholders were involved in the flood management system, such as the United States Agency for International Development (USAID), the World Bank, Civil Society Organisations (CSOs), as well as various related companies (ibid.). To communicate with the stakeholders, the Inter-Agency Working Group (IAWG) was established by the AF, and the UNDP (AF, "PPR 1"; AF 2017, 16).

The project supported adaptation to the rise of flooding incidents in the RRB. This included economic policies, regulatory measures through building codes, improving the scientific weather forecast system (FFEWS), local capacity development programs, and financial assistance to support these programmes (AF 2017; AF 2014).

This thesis analyses the effectiveness of this project within the time frame of 2011 (the year it was approved) to 2017 (the year it was completed (AF 2021).

3.3 Data Operationalisation

This section provides further explanation on the data used to research the indicators and the criteria that can evaluate the effectiveness of the AF's project in Georgia. As mentioned in the research design, this thesis conducts process-tracing to track the development of the project. According to Beach and Pederson, process-tracing requires the usage of empirical evidence, to support the analysis it provides (Beach and Pederson 2013, 6). A researcher must examine the archival documents, interview transcripts, and other sources to establish whether the

hypothesised theory is visible in the adopted case (ibid.). Therefore, the data used for this thesis is based on the AF's project documents, and one semi-structured qualitative interview with an NGO (Green Alternative, Mariam Devidze 2021). While the sources are explained below, an overview that summarises the definitions of the indicators, methods of assessment and the data used are categorised in annexe 3 for the readers.

3.3.1. Adaptation Fund/UNDP Data

This section explains the data produced by the AF. The AF's project documents are comprised of two external and four internal yearly project reports (PPRs) from 2014 up to 2017. The external evaluation documents were produced according to the evaluation framework of the AF (AF 2012). It provides an interim report, and a final evaluation report by external consultants, labelled the Mid-Term Evaluation Report (MTER), and the Terminal Evaluation Report (TER). This is structured under the AF's evaluation framework where it obligates the AF's projects to produce the reports under set requirements, increase the objectivity, and accountability of the evaluation. This is ensured by involving an external party and drafting the mid-term review strategy (AF 2012; Adaptation Fund 2021). Internal evaluation documents are produced to increase the self-investigative power of the projects (AF 2012, 3), where its PPRs outline the project development, risk assessments, financial budget distribution, and stakeholder engagement processes in each year. This thesis utilises these sources to analyse the project.

By analysing these documents under the AF framework, this thesis tests whether the Georgian project was able to "effectively" deliver assistance, according to the three criteria set within the theoretical framework.

Process-tracing using this data set (internal/external evaluation reports) provides an analysis of what political scientists view as a responsive, realistic evaluation, and performance management method (Pawson and Tilley 1997; Bayramov 2021). The yearly internal reports

show the performance management cycle, while the external evaluations highlight the realistic evaluation method. Analysing the AF's reports tests the different evaluation methods political scientists have categorised (experimentalism, responsive evaluation, performance management, realistic evaluation; Pawson and Tilley 1997; Bayramov 2021).

The below section provides the specific data analysed within the external and internal evaluation reports, according to the three criteria and the indicators. Further explanation that provides indication of why certain sources and indicators are used are provided in the overview table summarised in annexe 3.

a) Policy Environment

In Section 2.2 I set four indicators for determining the policy environment surrounding an effective climate finance policy delivery: *implementation process, legitimacy, coherency, and transparency*. The following outlines which parts of the internal PPR documents and the external evaluation documents are used to investigate each indicator.

In analysing the *implementation* process, I identified that an effective policy requires goals to be set under a certain timeframe, outlining the project delivery, and regulatory measures. Therefore, I process-trace the development of each goal throughout the periods of the four internal reports. I track the project delivery, according to the regulatory measures that enhanced the project goals in each project year. To analyse this specific project in flooding management, I focus on the development of the land policy framework, socio-economic assessment, and flood risk institutional arrangements within the reports. Furthermore, I investigate the regulatory measures guiding the implementation goals.

To abide by the *legitimacy* factor, the various stakeholders affecting the climate policy delivery needed to acknowledge the policy design. Therefore, this thesis investigates the stakeholders' opinions on the AF's project. I analyse the PPRs, specifically the "risk

assessment", that identifies if stakeholders acknowledged the policy design, as well as the failures in the Georgian government's incorporation of the newly suggested policy (the structure stakeholders are shown in Figure 2).

For *coherency*, the project had to align with the national development policy. Hence, I analyse if the AF's land policy framework and flood management policies overlapped with the national goals in that project year. This demonstrates how the AF incorporated the national goals into their project.

Next, *transparency* ensures the quality of the policy. This is evaluated based on the public accessibility of the data in each of the AF's project processes (PPRs visibility and external evaluation report's identification of problems throughout the project). For this indicator, I focus upon the transparency of policy development. This entails researching the policies developed per year, the risks involved in the policies developed, and how the challenges identified each year changed throughout the project development. To survey this factor, I analyse the internal and external reports of the AF.

b) Institutional Foundation

The institutional foundation criteria are, *coordination, willingness to change and innovate, and local financial delivery mechanisms*. These are researched as the following.

First, *coordination* determines if non-governmental and governmental entities collaborate on a policy. This factor is measured based on the cooperation process of direct and indirect stakeholders. The three direct stakeholders in the project documents are the AF, UNDP, and the Georgian government (AF 2014, AF 2017). The governmental ministries involved throughout the project were the Ministry of Environment (MoE), Emergency Management Agency, Ministry of Regional Development and Infrastructure (MRDI), National Environment Agency (NEA), Ministry of Environment and Natural

Resources Protection of Georgia, and the pilot municipalities (Figure 2; AF 2014, AF 2017). I research how these stakeholders coordinated in tackling the flooding management.

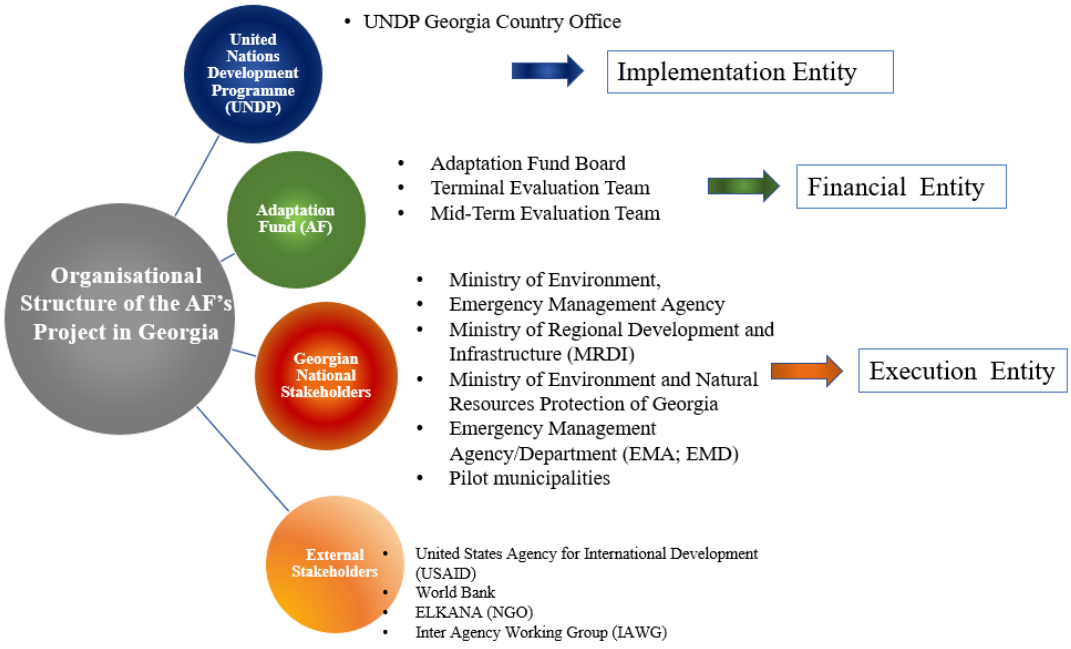
Indirect stakeholders include the Civil Society Organisation (CSO), specifically, the NGO actors (Green Alternative, Mariam Devidze 2021). I investigate the AF's engagement with these stakeholders to observe how they were included within the policy development. I analyse the internal and external evaluation reports, and one semi-structured interview.

The "*willingness to change and innovate*" is measured by how the responding government promotes the adoption of the policy and makes changes.

For this, I look at how the Georgian government has responded to the AF's engagement in Georgia. I observe the local government's ministry documents regarding the project year and see whether the AF's project outcome is reflected in the policy plan.

For *local financial delivery*, an organisation must reflect the local budget needs. Therefore, I analyse the budget outlines in the AF's internal and external evaluation reports—specifically, the amount of budget in each process that reflected local's demands for preventing the floods in the Rioni river basin (RRB).

Figure 2: Organisational Structure of the AF's Project in Georgia.



Source: AF 2014, AF 2017, AF "PPR 4".

c) National Financial System

This criterion is analysed using three factors: *public expenditure execution via the organisation system, financial monitoring and tracking, and external audit system.*

I have explained that for a successful *public expenditure execution*, the government or the organisation should execute the planned budget within the given year. For this investigation, I study the financial data in the PPRs to analyse the flow of funds related to the flood management policy development, as well as the hazard prevention scientific disbursements to the national weather forecast system.

To audit the *financial monitoring and tracking system*, one must identify the flow of finance. Therefore, I analyse how the AF has monitored all the budgets throughout the project years. This is done through the analysis of the PPRs, specifically the "financial data" provided in the yearly documents.

For the *reporting and accounting regulation*, expenses relevant to the climate project must be tracked. Thus, I investigate the expenses that were dedicated to Georgian flood management policies reflected in the PPRs and the evaluations conducted by the external evaluators.

Finally, an *external audit* with a climate budget is necessary. To investigate this, I monitor the external evaluation reports, looking at how the budget was tracked by the external parties in the two reports, and investigate the budgets related to flood management in the documents.

3.2.1. Small-n Qualitative Interview

This section further explains the usage of a semi-structured interview, used as a data source. This is to provide the civil society's views of the AF's project in Georgia. While the AF has engaged with the local NGOs (Elkana, Caucuses Environmental NGO Network; AF 2017, 18-24), the data regarding local engagement was limited. According to the Term of Reference

(TOR) of the final evaluation, there were 12 individual interviews, and one group interview (AF 2017, 17). However, due to the United Nations Evaluations Group (UNEG)'s confidentiality policy, this data was not available to the public (AF 2017; UNEG 2021). To fill this gap, I interviewed Mariam Devide from Green Alternative, an NGO which evaluated the project. This semi-structured interview reveals civil society's assessment of the AF's engagement in the project. It adds additional insights into how the local civil network reviews the project and provides further data that can evaluate the project. The analysis will also align with the other indicators, through process-tracing the data provided, and assessing it with a six-level system (Annexe 1).

The data is limited to a single interview due to time constraints, and the lack of response from other invited stakeholders. Further analysis incorporating interviews from wider range of stakeholder interviews are recommended (AF, UNDP, Georgian municipality officials, evaluation officers).

4. Analysis

This section conducts analysis based on the theoretical framework and data operationalisation outlined in Section 3.

4.1. Policy Environment

Within this section, I analyse the indicators set in Section 3.2, examining the policy environment of the AF's project. The four indicators include the *implementation process, legitimacy, coherency, and transparency*.

i) Implementation Process

To analyse the implementation process, I process-trace the development of the project delivery and the regulatory measures throughout the four PPRs. The specific units of analysis are the land policy framework and flood risk institutional arrangements.

The land policy framework was developed to improve the floodplain development policies. The regulatory frameworks are mainly managed by the Inter-Agency Working Group (IAWG) through which the AF hired experts in the field to cooperate with governmental agencies, NGOs, International Organisations, and the affected individuals of the flooding communities (AF, "PPR 1"). With the Flood Risk Management (FRM), the AF identified problems in Georgia's central policy management, especially in the distribution of tasks between the Department for Management of Emergency Situations, and the National Environmental Agency (ibid.). In the primary phase of the project, the AF identified gaps in how the government supported local municipalities that undergo flood incidents (ibid.). Alongside the IAWG, the AF developed the FRM. The consultations with the IAWG advanced the building codes and the area's flood resilience (ibid.). This improved cooperation between governmental stakeholders led to new policy adoption. During the PPR 2 phase, the AF lobbied

to the ministries of environment, agriculture and economic development, to further reshape policy, and discuss flood prevention policies in formal meetings (AF, "PPR 2"). The AF/UNDP drafted a long-term flooding plan in the event of climate change and identified regulations for the flooding policies. In the PPR period, the AF/UNDP further developed flooding prevention in Georgia (AF, "PPR 1, and 3"), and finally, in the final phase included the floodplain zoning policy which stipulated building codes. However, governmental stakeholders failed to agree to its adoption (AF, "PPR 4"). Reasons for this failure include the reluctance of the Georgian government, frequent government staff changes, and the time it took to incorporate legislative changes (AF 2017, 46). As a developing country, Georgia lacked the institutional support needed to implement adaptative policies. As Devidze (2021) has pointed out, institutional constraints mainly derived from the duplication of overlapping roles between different departments within the Georgian ministries, and lack of ownership on an institutional level (Devidze 2021, AF 2014, AF 2017).

The external evaluators (TER) graded this project's policy management "HS", due to the "high-quality of floodplain zoning policy framework" (AF 2017, 4). They analysed the realistic time required for the government to adopt the policy. However, considering that the AF/UNDP reached their goal to produce FRM policy, I rank this indicator "S", even if the government did not implement the policy during the project period.

ii) Legitimacy

The legitimacy indicator analyses stakeholder involvement throughout the climate policy delivery. As previously mentioned, the UNDP was the functioning body, and its implementation executives cooperated with the governmental, non-governmental, and local-level stakeholders. The prime focus was the enactment of the IAWG, which initiated inception workgroups for the local groups (AF, "PPR 1"). After the challenges were identified in PPR1, the project progressed towards discussing floodplain policy on a parliamentary level during the

PPR 2(AF, "PPR 2"). To adopt the policy on a national level, during field visits were held with the Georgian National Environmental Agency (NEA) during the PPR 3 timeline (2014 June to 2015 June; AF "PPR 3"). Furthermore, throughout implementation, the AF/UNDP provided capacity developing and community-engagement programs by including flooding prevention activities, including discussions on policy development. Through these programs, locals identified direct risk areas (AF, "PPR 3"). The main focus was to develop the flooding policy, improving the weather forecast system and the flooding management policies (AF, "PPR 2"). The final phase of the program produced an implementation plan that could be adopted beyond the six pilot municipalities (AF 2017, 20).

As shown, the AF demonstrated strong "*legitimacy"*, where the UNDP/AF identified the challenges in each implementation plan, then improved in the later phase of the project. The recognition of the risks enhanced the project to further change its direction, modifying the weather forecasting system with scientists and the NEA (AF, "PPR 3"). For example, the unpredicted weather conditions during the PPR 2 phase delayed the project's implementation, alongside the government's cooperation in building a long-term resilience program (AF, "PPR 2, 4"). The developments in each phase of the PPR enabled stakeholder engagement from the three project entities (financial, executive, implementation) which increased ownership from each stakeholder.

The final evaluation report graded this indicator "HS", due to the effective stakeholder engagement; as indicated, there was successful communication with the local municipality (AF 2014, 8; AF 2017, 6). The report specifically assessed its local engagement highly, as the project involved local surveys, and forecasted well enough for the NEA to adopt the Flood Forecasting Early Warning System (AF 2017, 6). The six target municipalities also praised the practical support, where protection of the riverbanks and assurance of livelihood was guaranteed through the project's socio-economic components.

However, Devidze (2021) claims that there was limited engagement from the CSOs, based on certain concerns from the local community. These comments were delivered to the UNDP but did not receive a response (Devidze, 2021). While she notes the AF's engagement throughout the project and the AF Board's cooperation, she voiced her concerns about the degree of engagement that CSOs were able to make throughout the project (ibid.).

Therefore, based on the PPRs, the external evaluation reports, and the semi-structured interview, I rank this indicator "MS". Despite the progress shown in the PPRs, and the positive reviews in the TER, the semi-structured interview suggests room for improvement. However, I recommend further interviews from the local stakeholders to further consolidate the findings.

iii) Coherency

To survey this indicator, I research the project's alignment with the national development policy, looking at the 2014-2017 annual reports from the Ministry of Environment and Natural Resources Protection (MENRP).

The MENRP set the goal for managing the flood risks through its directive, 2007/60/EC, in its national report within the period of 2014 up to 2017 (MENRP 2017, 75). This directive assures the assessment of the flood risks in Georgia and aligns with the EU provisions of the directive on FRM (2007/60/EC; ibid., 151). These national reports identified the flood risks stemming from increased heat waves and melted glaciers; in 1995, the average frequency of the floods was 3-5, whereas, in 2017, there were 27 incidents (ibid., 150). That report prioritised adaptation and the implementation of the framework in the RRB, which aligned with the AF's project (ibid., 149). The RRB region was prioritised due to the frequency of incidents reported (ibid.).

While the above identifies the coherency of the AF's flood management in Georgia, it is true that the Georgian government prioritised other national strategies that year. Evaluating the MENRP reports shows the Georgian government focused on the following objectives: agriculture yield, rural infrastructure, rural economic development, and the development of the local municipality programmes (MENRP 2017, 86; MENRP 2018) Additionally, a local election was planned in 2016, and the restructuring of local government was the main action point (MENRP 2018, 12).

Reviewing the national strategy shows that flood crisis was not the government's priority during the AF project's timeframe. While the AF's efforts aligned with the government's strategy, the national agenda was not solely on flood management. Within the PPRs, the AF pointed out that the governmental stakeholders failed to implement the policy due to the "national government plan". The AF could, therefore, have enhanced its acceptability to the governmental stakeholders if they had analysed the national strategy reports more thoroughly before the start of the project. Additionally, the AF also recognised that the municipalities' acceptance of the project was lower than desired, and that they did not lobby for implementation throughout the negotiation process (AF, "PPR 4").

However, as the MENRP reports were published *after* the national policies were implemented, it is unlikely that the AF could have increased its involvement with the stakeholder. Therefore, considering all factors, I evaluate this indicator, "MS".

iv) Transparency

The transparency was based on the accessibility of the internal and external audit data (section 3.3).

Within the internal PPRs, I trace the AF's transparent risk assessment of the financial assistance, policy development, and scientific weather forecasting development in each of its processes. The PPR 1 indicated a lack of active coordination mechanisms between UNDP, and the project staff (AF, "PPR 1"). The documents outlined the financial measures for long-term flood prevention and the risk mitigation design for the six municipalities, on top of the community-based adaptation measures, and the budget needed for developing the economic policies. This included transparent grant allocation of floodplain management, and the capital used for hydrological forecasting.

Furthermore, PPR 2, PPR 3, and PPR 4, developed upon the risk factors identified in PPR 1. In the PPR 2 phase, the AF improved coordination within the UNDP, and identified further additional risks (i.e. the "poor institutional memory" of the Georgian government; AF, "PPR 2"). PPR 3 improved the advocacy and community-based policies for FRM policies, and the early warning system**.** PPR 4 collected all the risk factors identified throughout the PPR 1-3 reports and pointed out the areas where the AF and UNDP had failed to deliver. This includes the time and budget constraints training for the community members, and consultations with ministries and municipal staff (AF, "PPR 4"). The AF's publicised data, and their honesty regarding their failures demonstrates a high degree of transparency the AF communicated through the public data, in PPR 1 to 4.

Both external evaluators graded the transparency of the project as "HS", based on the PPR's risk assessments. This was due to the AF's receptiveness towards criticisms, transparent

finance modalities, and project management (AF 2017, 49). The governmental stakeholders interviewed also indicated this factor, which increases the AF's credibility (ibid., 6).

Collecting from both the internal and external evaluation, I grade the transparency criterion, "HS".

4.2. Institutional Foundation

The institutional foundation analyses the three indicators, *coordination, willingness to change and innovate, and local financial delivery mechanisms*. Under the set data resources and its requirements mentioned in the prior section, I process-trace the implementation of the indicators in the project.

i) Coordination

The parties involved in this indicator were separated into direct, and indirect stakeholders. The direct stakeholders are analysed through the PPR documents, evaluating the AF, UNDP, and the Georgian government (NEA, MoE, and MRDI). The indirect stakeholders are the parties in the CSO, specifically the NGO actors who evaluated the project (Elkana, Green Alternative-Mariam Devidze). The positioning of the NGOs is gained from the interview with Mariam Devidze (2021).

First, to go over the PPRs, the AF identified the need for good collaboration between the local population, target municipalities, and the central institutions in order to improve the program results (AF, "PPR 1"). The project documents show periodic improvement with governmental institutions, specifically the NEA and the six-target municipalities. The Hazard monitoring was actively discussed with the governmental stakeholders, and showed local engagement through its Institutional Capacity Development Plan (AF, "PPR 2, 3 and 4). It

established institutional contracts with the NEA (via the Letter of Agreement), which shows project developments (AF, "PPR 4").

Accordingly, the TER evaluates the project as, "HS" due to the level of involvement of the direct stakeholders, and through the capacity development program, project knowledge and technical skill training, and workshops (ibid., 11; AF 2017, 6). The activities targeted different project stakeholders, directly including the local-level stakeholders. The project increased its socio-economic impact on target municipalities by using local companies and materials (AF 2017, 6). Furthermore, the TER indicated ample usage of the employment guarantee scheme, which employed approximately 160 people locally, and 200 in the municipality (ibid., 31).

However, Mariam Devidze (2021) found an insufficient engagement from local experts due to the government and the UNDP's budgetary constraints (Devidze 2021). Furthermore, the frequent staff turnover decreased local involvement, and highlighted the problematic institutional structure of the Georgian ministries. In essence, Devidze argued that the CSO's engagement in the project was limited. She adds:

"The participation of CSO groups and experts act as an obstacle since there are too many perspectives and knowledge coming through when you cooperate with various actors (ibid.)".

The UNDP failed to respond to these concerns (ibid). As Bird *et al* pointed out, the inclusion of *all* the actors—especially locals— is limited in policy decisions (Bird et al., 4). Devidze's opinion supports this argument, where the inclusion of all the actors is limited.

Devidze further referred to a 2020 flooding incident, showing that the project did not prevent all flooding incidents in the region (Devidze 2021; Civil 2022). However, this incident alone cannot negate the achievements of the project. Reports indicate that the project decreased flooding complaints from an annual average of 50 to zero in the year following the project, which Devidze also agreed on (AF CSO Network 2020; AF 2017, 51). Devidze recognised this,

along with the AF Board's cooperation when her concerns regarding the usage of local experts were discussed in the formal meetings (Devidze 2021).

Therefore, considering the CSO's opinion, alongside the policy coordination efforts throughout the project years (based on PPR 1 to 4, and the TER), I grade this indicator "MS".

ii) Willingness to Change and Innovate

This indicator is measured by how the national government responded to the final project delivery outcomes. I measure this based on how many of the AF's project outcomes were included in the governmental policy scheme, in the forms of governmental reports or scientific data modifications.

The Ministry of Environment Protection and Agriculture of Georgia (MEPA)'s policy reports do include related climate change policies, and objectives for the national government (2017-2018). The parts that relate to the AF's project include the hydrometeorological observation and expansion of the observation network to reduce the climate-related risks within the country (MEPA 2018, 106). However, it is not clear that this policy was a result of cooperation with the AF, meaning that the AF's policy outcome cannot be directly correlated to the national policy. One can only *assume* that the policy developed hydrometeorological services in the 5 river water monitoring stations (River Gubazeuli, Natanebi, Khobiskali, Bzhuzhi, Nenskra) could have been due to the AF's project in these river basins (AF 2014, 6; MEPA 2022; MEPA 2018, 107).

Another relevant municipal report is one produced by MEPA (MEPA 2017). This reports Georgia's environmental conditions from 2014 to 2017, alongside its national risks, and the sectors that would be impacted —but only briefly mentions the AF's project. There is no

mention of policy adoption stemming from the project, making it difficult to analyse how much the AF contributed to the government' flooding management policy.

The AF's project documents show that the three main objectives of the project were: climate-resilient flood management, the reduced vulnerability of highly exposed communities, and an early flood warning system (AF 2014, 6). While the policy outcomes were not directly outlined in national policy reports, external evaluators noted the government's interest in using the studies in higher-level ministries in the future (AF 2017, 3). Furthermore, the evaluators found the project outstanding in terms of scientific value and meeting its objectives, (ibid.).

Based on the above context, I grade this indicator with a "MU", as there is little clarity on how the project's outcomes were reflected in the Georgian national policy reports, regardless of the external assessment.

iii) Local Financial Delivery Mechanisms

Here I analyse how the AF has considered the local budget needs. To do so, I analyse the budgets of community-based policy measures, projects, and reproductive systems within the PPRs and the external evaluation reports.

Local financial budget deliveries are found under the "financial data" section of the reports. Six of the budget categories are directed toward locals. It includes six budget categories: "1.5 Community-based flood insurance scheme designed and implemented covering highly exposed villages under six municipalities", "2.1 Direct measures of long term flood prevention and risk mitigation designed with the participation of local governments and population in six municipalities", "2.2 Community-based adaptation measures, such as bank terracing, vegetative buffers, bundles and tree revetments implemented building on an existing municipal employment guarantee scheme", "2.3 Floodplain seasonal productive systems in benefiting

200,000 people and improve resilience to flooding threat", "3.1 Long term historical observation data digitised and used in policy formulation and risk management practices", and "3.2 Series of targeted training delivered for the NEA staff and partner organizations in the advanced methods of risk assessment" (AF, "PPR 2, 3, 4"; Figure 3). PPR 1 is not analysed as there was no budget in this period for local financial delivery (04 July 2012 - 30 June 2013). Figure 3 outlines the yearly budget, with set categories. Clearly, the AF continuously included a budget for the local environment. For PPR 3 and 4, the budget used for the local accounts is more than half of the total yearly project budget (Figure 3). However, there are a few categories that did not yet provide any budget in the given year for their specific budget category (2.2, 2.3, 2.4, 3.3). It is problematic that there were no explanations for this, nor a budget executed later to fill the gap.

Figure 3. Local Financial Delivery Budget Per Year (PPR 2 to PPR 4).

ITEM / ACTIVITY / ACTION	PPR 2 AMOUNT/USD	PPR 3 AMOUNT/USD	PPR 4 AMOUNT/USD
1.5 Community-based flood insurance scheme designed and implemented covering highly exposed villages under 6 municipalities	41.885,00	97.009,24	6.930,00
2.1 Direct measures of long-term flood prevention and risk mitigation designed with participation of local governments and population in 6 municipalities	14.738,20	648.209,67	758.930,75
2.2 Community-based adaptation measures, such as bank terracing, vegetative buffers, bundles and tree revetments implemented building on an existing municipal employment guarantee scheme	0,00	65.983,24	11.114,85
2.3 Flood plain seasonal productive systems (e.g., short season annual cropping, cattle rearing plots or seasonal pastures, agro-forestry) benefit 200,000 people and improve resilience to flood threat	158.017,17	430.126,98	N/A
3.1. Long term historical observation data digitised and used in policy formulation and risk management practices	17.423,97	20.082,52	N/A
3.3. Series of targeted training delivered for the NEA staff and partner organizations in the advanced methods of risk assessment	0,00	10.245,97	3.000,00
Local Financial Delivery Budget Per Year	232.064,34	1.271.657,62	779.975,60
TOTAL BUDGET USED PER YEAR	1.254.864,34	1.693.423,82	921.533,07

Source: AF, "PPR 2, 3 and 4."

Secondly, observing the external evaluator's assessment on AF, I have identified the objective assessment from the AF's third-party audit model. The evaluators have analysed the AF's finance management with the UNDP financial rules and International Standards on Auditing (ISA) (AF 2017, 42). The findings suggest transparent accounting high quality internal documentation. However, the final evaluation fails to incorporate further financial analysis on determining why certain data was not available or why 0 USD was provided for certain criteria. The report rates the "financial resources" category with a "U", however, fails to specify if this was due to the lack of clarity in how the budget fell short (ibid., 10).

Nevertheless, as figure 3 indicates, over 50% of the AF's project budget met the needs of the locals or improved policy, scientific measures, or long-term prevention strategies. Therefore, despite missing information and the short explanation from the external evaluators, I assess this criterion with an "MS".

4.3. National Financial System

This section assesses the last criterion, analysing the public expenditure, financial monitoring and tracking, reporting, and accounting regulations, and the external audit system.

i) Public Expenditure Execution

Regarding public expenditure, I analyse the AF's budget allocation in coordination with the UNDP and the Georgian government, shaping the policies to decrease the effects of flooding.

In the internal PPRs, I examine the budgets on flood management policy development and the hazard prevention scientific disbursements to the national weather forecast system. For an overview of the financial data throughout the PPRs, figure 4 is provided. For this indicator, the following budget categories are analysed: 1.1 Hazard and inundation maps produced for

whole basin, 1.2 Review and change land-use regulations to internalise climate change risks into floodplain management and spatial planning, 1.3 New building codes reviewed and streamlined for housing rehabilitation schemes to flood-proof new buildings, taking into account alternative climate change alternatives, 1.4 Targeted training if national and local authorities responsible for climate risk management is advanced methods of forward-looking climate risk management and flood prevention measures, 1.5 Community-based adaptation measures such as bank terracing, vegetative buffers, bundles and tree revetments implemented building on an existing municipal employment guarantee scheme, 2.1 Direct measures of long-term flood prevention and risk mitigation designed with participation of local governments and population in six municipalities, 3.1 Long term historical observation data digitised and used in policy formulation and risk management practices, 3.2 Multi-hazard risk-assessment for the RRB).

Figure 4. Compiled Budget Data of the AF's Project in Georgia (Expenditure Data).

ITEM / ACTIVITY / ACTION	PPR 1	PPR 2	PPR 3	PPR 4
Output 1.1. Hazard and inundation maps produced for whole basin	52.001,26	321.952,48	29.751,60	9.036,07
Output 1.2.: Review and change land use regulations (land use planning, including zonings and development controls, e.g., on protection / buffer zones, settlement expansion; economic development categories etc) to internalize climate change risks into floodplain management and spatial planning	4.640,99	9.610,30	23.510,00	N/A
Output 1.3.: New building codes reviewed and streamlined for the housing rehabilitation schemes to flood proof new buildings (e.g., material standards, traditional house raising etc) considering alternative climate change scenarios	2.856,48	18.495,43	14.245,50	N/A
Output 1.4 Targeted training if national and local authorities responsible for climate risk management in advanced methods of forward-looking climate risk management planning and flood prevention measures	N/A	0,00	7.184,00	N/A
Output 1.5 Community-based flood insurance scheme designed and implemented covering highly exposed villages under 6 municipalities	N/A	41.885,00	97.009,24	6.930,00
Output 2.1 Direct measures of long-term flood prevention and risk mitigation designed with participation of local governments and population in 6 municipalities (Lentekhi, Oni, Ambrolauri, Tskaltubo, Samtredia, Tsageri)	N/A	14.738,20	648.209,67	758.930,75
Output 2.2 Community-based adaptation measures, such as bank terracing, vegetative buffers, bundles and tree revetments implemented building on an existing municipal employment guarantee scheme	N/A	0,00	65.983,24	11.114,85
Output 2.3.: Flood plain seasonal productive systems (e.g., short season annual cropping, cattle rearing plots or seasonal pastures, agro forestry) benefit 200,000 people and improve resilience to flood threat.	14.054,90	158.017,17	430.126,98	N/A
Output 2.4 Lessons learned, and best practices documented and disseminated to raise awareness of effective climate risk management options for further up-scaling	N/A	0,00	1,000,00	22.660,00
Output 3.1.: Long term historical observation data digitised and used in policy formulation and risk management practices.	79.452,09	17.423,97	20.082,52	N/A
Output 3.2. Multi hazard risk assessment for the Rioni river basin (floods, flash floods, associated mudflows and landslides, linked with climatic alterations under alternative scenarios).	N/A	0,00	10.000,00	N/A
Output 3.3. Series of targeted training delivered for the NEA staff and partner organizations in the advanced methods of risk assessment	N/A	0,00	10.245,97	3.000,00
Output 3.4. Essential equipment to increase monitoring and forecasting capabilities in the target basin procured and installed	N/A	599.342,52	48.673,70	N/A
Output 3.5: Systems established at the national and sub-national level led by the NEA for long- and short-term flood forecasting of hydrological risks; including dissemination and communication of forecasts	N/A	10.778,25	164.352,15	4.440,11
TOTAL	**153.005,72**	**1.192.243,32**	**1.570.374,57**	**921.533,07**

Source: AF, "PPR 1, 2 and 4".

As observable from figure 4, most of the budget categories are dedicated to changing the flooding management policies, adaptative measures, and risk management via scientific assessments (the aforementioned categories). Furthermore, the largest budgets dedicated per year (highlighted orange) were: PPR 1—3.1 Long term historical observation data digitised and used in policy formulation and risk management practices— USD 79.452,09, PPR 2—3.4 Essential equipment to increase monitoring and forecasting capabilities in the target basin procured and installed– USD 599.342,52, and for both PPR 3 and PPR4, 2.1 Direct measures of long-term flood prevention and risk mitigation designed with the participation of local governments and population in six municipalities– USD 648.209,67, USD 758.930,75. This clearly shows how the budgets reshaped the policies. One can track the budget per year, how it changed in cooperation with the national government. However, as mentioned in the local financial delivery mechanism analysis, there is missing data: "N/A" or USD "0" (highlighted yellow), with no explanation for why certain budget categories were not used. The AF must further provide the public with the reasoning behind this budget allocation.

Nevertheless, considering the transparency of the AF's budgets and its effect on flooding management policies, I grade this category, "S".

ii) Financial Monitoring and Tracking

This indicator is already observed through the previous indicator. According to the budget categories and budget allocation per year, financial monitoring was done effectively, as one can track the budget and categories used each year. Additionally, there was a clear methodological scope, budget implementation plan, expert inputs, and financial risk assessment throughout the internal reports.

The external evaluation report assessed the project's financial monitoring as "the highest quality" (AF 2017, 49). It followed the AF accounting policies, was authorised by the local

environment agency (NEA), was certified by the NEA, and exhibited internal control (cash management, finance, procurement, asset management, general administration; ibid., 42). Furthermore, the external audits following the UNDP rules and regulations ensured credibility (ibid.). Therefore, based on the evidence, this indicator is graded "HS".

iii) Reporting and Accounting Regulations

The reporting and accounting regulations indicator investigates the reporting system and accounting regulations of the project. The project must report expenses, under the set regulations relevant to tackle the climate crisis based on the national context. To meet the standard for this criterion, budgets should be executed on the same basis as the original budget, enabling a straightforward comparison of expenditure against the original budget plan (Bird et al., 2013, 8).

To assess this indicator, I analyse the external evaluation reports. The external evaluation reports note that this project followed the reporting and accounting regulations of the UNDP (AF 2017, 42). As shown by "National Implementation by the Government of UNDP Supported Projects: Guidelines and Procedures (otherwise, NIM), audits were conducted annually with the Georgian UNDP office, Georgian audit, and a consulting company (ibid.). The report declares that the project finances have been managed "well" (ibid.). The project delivered a transparent overview of the finances and tracked budgets that were outside of the plan, for instance, co-financing which developed after the project's implementation. The NIM, shows that the project's finances exhibited excellent value for money, alongside good budget plans and execution. Therefore, given its alignment with the original budget plan, its reporting and accounting regulation, this indicator is graded with an "HS".

iv) External Audit System

In this indicator, I assess how the AF's project ensured accreditation through the involvement of an external audit body. The external assessment should audit the climate-related budget of

the project, meeting the objectives of the original project aims. As noted, external evaluations were carried out through the interim and the final evaluation reports. I study the financial audits within these two reports and evaluate the sufficiency of the audit strategy.

First, the interim evaluation report (MTER) references the guidelines of several documents to align the assessment according to the guidelines. This includes the UNDP financial and administration guidelines, project operational guidelines, the AF operations guidelines, and the UNDP monitoring and evaluation framework (AF 2014, 79). Building on these frameworks, the external audit reviewed the PPRs and interviewed the 28 stakeholders involved with the project (ibid., 50-77).

The report shows that the budget was managed "well with absolutely no signs of any major problems" (ibid., 42). During the interim evaluation, expenditure was slower than anticipated, however, still in line with overall expenditure plans (ibid.).

Secondly, the final evaluation report considered the budget well-distributed despite the small amount compared to the project budget, and able to meet project objectives and management values (AF 2017, 42). The interviews conducted with the 22 informants also supported this assessment (ibid.). The grade given for financial and administrative handling was therefore "HS", with only positive comments from the project management team (ibid.,7).

Thus, based on the two reports, I also grade this indicator with "HS", finding no budgeting constraints in tackling the flood management project.

4.4. Conclusion of the Analysis

This section provides an overall review of the analysis section through a summary of key findings, and a result table (Figure 5).

Figure 5: Aggregate Assessment Based on the Six-level System[1]

Criterion	Indicator	Rating	Comments
Policy Environment	Implementation Process	S	8
	Legitimacy	MS	6
	Coherency	MS	6
	Transparency	HS	10
	Total	**MS**	**Average 7.5**
Institutional Foundation	Coordination	MS	6
	Willingness to Change and Innovate	MU	4
	Focus on Local Financial Delivery Mechanisms	MS	6
	Total	**MU**	**Average = 5.3**
National Financial System	Policy Expenditure Execution	S	8
	Financial Monitoring & Tracking	HS	10
	Reporting and Accounting Regulation	HS	10
	External Audit Body	HS	10
	Total	**S**	**Average 9.5**
	Grand Total	MS[2]	MS + MU + S (Average = 7.6)

[1] To provide a final grade of the project, I translate the six levels to a 0-10 scale, to calculate the total result. "HS" is translated with a 10, "S" with a 9, "MS" with a 6, "MU" with a 4, "U" with 2, and "HU" with a 0. According to this translation, a total is given with the average each criterion gets. If a criterion gets a number with a decimal point, then it will be rounded down to provide a natural number (i.e., 7.5 will get a 7, and a "MS").

[2] The three indicators scored "MS", "MU" and "S". To find the average upon these three grades, "MS" is given.

This thesis analysed the effectiveness of the AF's project in Georgia through Bird *et al*'s framework. With the analysis provided, I have determined that the AF's project in Georgia was "Moderately Satisfactory" when placed on the six-level system (Annex 1). It delivered an overall effective project through its policy environment, institutional foundation, and national financial delivery. It has managed to improve the flooding management policies, scientific weather forecasting system, stakeholder management, transparent financial budgeting, and external audit system.

Through the analysis, I identified in which areas the AF has fallen short in improving the climate finance delivery. These include—lack of incorporation into Georgia's national policy, lack of ownership from the Georgian government, and failure to include all the stakeholder's opinions. Additionally, the early warning forecasting system was not fully implemented into the national context, due to the structural constraints where the governmental entities had other strategic plans in the given project year.

Therefore, for improved project delivery, the AF must further cooperate with the local government. However, the question remains to what extent can an international entity provide support to a local government that lacks the receptivity in incorporating enhanced policy deliveries. There needs to be a further academic and normative study on how international entities can cooperate with governmental stakeholders to overcome structural and policy constraints.

5. Conclusion

In conclusion, this thesis analysed the AF's project in Georgia, and how it effectively delivered its project aims in the national context. By analysing the project with Bird *et al*'s framework, it assessed the project's delivery according to the three criteria, using the internal reports, evaluation reports, and a semi-structured interview. The case analysed successful factors the AF has employed to provide the effective policy delivery, and the obstacles climate projects undergo, despite the assistance from international climate fund. It provided how climate funds can implement, evaluate, and deliver an "effective" policy, suited for a specific national context.

Further research could examine factors that were not within the scope of this thesis, such as the policy plan and its adherence to EU environmental directives (coherency indicator) which shows where adaptative climate projects fail to meet their goals. These variables need extended investigation for a full assessment of the project delivery.

In addition, while a single case study allows in-depth research into a specific context, further large-n qualitative and quantitative research is needed to identify the wider patterns in adaptative projects. As mentioned, the scope of this single case analysis is limited to researching the variables identified in Bird *et al*'s framework. A more comprehensive study would measure additional variables that were outside this thesis' scope. Conducting a large-n qualitative and quantitative study on all the AF projects could outline the overlapping success factors and challenges. Hence, with the combination of qualitative and quantitative data, researchers could analyse how climate funds can deliver effective project outcomes over multiple national contexts. Further theoretical research defining "effective" climate finance policy or identifying the normative variables for improving climate fund policymaking is also recommended. Such research would be fruitful avenues for future academic analysis.

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Annexe 1 – Six-level Grading System

Ratings for Project Implementation & Adaptive Management: (one overall rating)		
6	Highly Satisfactory (HS)	Implementation of all three components – management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications – is leading to efficient and effective project implementation and adaptive management. The project can be presented as "good practice".
5	Satisfactory (S)	Implementation of most of the three components is leading to efficient and effective project implementation and adaptive management except for only a few shortcomings.
4	Moderately Satisfactory (MS)	Implementation of some of the three components is leading to efficient and effective project implementation and adaptive management, with some components' significant shortcomings.
3	Moderately Unsatisfactory (MU)	Implementation of some of the three components is not leading to efficient and effective project implementation and adaptive management, with most components' shortcomings.
2	Unsatisfactory (U)	Implementation of most of the three components is not leading to efficient and effective project implementation and adaptive management.
1	Highly Unsatisfactory (HU)	Implementation of none of the three components is leading to efficient and effective project implementation and adaptive management.

Source: UNDP. 2021.

Annexe 2 – Semi-structured Interviewee

Interviewee	Role & Institution	Date & Format
Mariam Devidze	Mariam Devidze worked as the environmental and climate change programme officer for the Green Alternative, one of the NGOs involved in assessing AF's project in Georgia (2016 - 2019). She has audited the social and economic changes caused by the development projects and investigated the AF's work with CSO Adaptation Fund Network, a subsidiary NGO that analyses the CSO's assessment of AFB.	December 15, 2021. Via Microsoft Teams

Source: CSO 2021, Green Alternative 2021.

Annexe 3 – Compiled Information on Definitions, Indicators, and Methods of Assessment

Criterion	Indicator	Definition	Methods of Assessment, Scope of Analysis
Policy Environment	Implementation Process	• An effective policy needs implementation process that has set goals for a specific time frame, with objectives and regulatory measures.	• Investigate the regulatory measures guiding the implementation goals. • Analysis of the development of the land policy framework, socio-economic assessment, and flood risk institutional arrangements within the reports (PPRs and the external reports).
	Legitimacy	• Stakeholders must acknowledge the legitimacy of the policies. • Legitimacy means the representation of various stakeholders, including those who are affected by the risk of climate change.	• Stakeholders' acknowledgement of the policy design. • The failures in the Georgian government's incorporation of the newly suggested policy. • Analyse the PPR documents, specifically in regard to the "risk assessment" function that identifies if stakeholders acknowledged the policy design, as well as the failures in the Georgian government's incorporation of the newly suggested policy.
	Coherency	• To be coherent, projects produce policies that aligns with the national development policy	• Evaluated through how much of the AF's project goal includes national policy. • Analyse the AF's land policy framework and flood management policies which overlapped with the national goals in that project year. • Analysis on the annual reports from the Ministry of Environment and Natural Resources Protection (MENRP).
	Transparency	• A transparent policy environment provides the policy formulation and implementation process, available to the public. • A policy should have a mechanism outlining how transparency is guaranteed.	• The transparent tracking of the policies developed per year, the risks involved in the policies developed, and how the challenges identified each year changed throughout the project development. • The transparency was based on the accessibility of the internal and external audit data (section 3.2). • Analysis of the internal PPR documents (trace the AF's transparent risk assessment of the financial, policy development, and scientific weather forecasting development in each of its processes), and the external documents.

Criterion	Indicator	Definition	Methods of Assessment, Scope of Analysis
Institutional Foundation	Coordination	• There must be a collaboration between non-governmental and governmental organisations and produce periodic reports that outlines the cooperation that progressed each project year.	• Track the cooperation between the three direct stakeholders (AF, UNDP, and the Georgian government), and the indirect stakeholders (CSO actors). Research how these stakeholders coordinated in to produce policy relevant for the local context. • The AF's engagement with the indirect stakeholders, to observe how they were included within the policy development. Completed through the analysis of the internal and external evaluation reports, and one semi-structured interview.
	Willingness to Change and Innovate	• The responding government promotes the adoption of the policy, and advocates for further changes to enhance the policy delivery. • The government periodically produces technical reports or action plans or improves infrastructure to overcome raised constraint.	• Observe how the responding government promotes the adoption of the policy and makes changes. • Analyse how the Georgian government has responded to the AF's engagement in Georgia. • Analysis on the local government's documents (Report from the Ministry of Environment Protection and Agriculture of Georgia) regarding the project year and see whether the AF's project outcome is reflected in the policy plan.
	Focus on Local Financial Delivery Mechanisms	• The needs of the local communities must be reflected in the financial policy delivery, with the cooperation of local institutions.	• Analyse the budget outlines in the AF's internal and external evaluation reports—specifically, the amount of budget in each process that reflected local's demands for preventing the floods in the Rioni river basin (RRB). • Analysis of the budget allocated for the local financial delivery, within the PPR reports and the external evaluation reports.

Criterion	Indicator	Definition	Methods of Assessment, Scope of Analysis
National Financial System	Policy Expenditure Execution	• Policy expenditures should be executed by the government/organisation system and planned during the budget year. • Departments should follow a monitoring process in mapping the expenditure, validate the delivery of the budget or service, authorise/carry out the payment, and then record the transaction officially.	• Investigate how the AF's budget is used to fund resilient policies, and financial instruments that can assist the Georgian government. This captures how the AF's intervention in Georgia has allowed the national government to tackle the flooding crisis in cooperation with the AF. • Analyse the financial data in the PPR documents to analyse the flow of funds related to the flood management policy development, as well as the hazard prevention scientific disbursements to the national weather forecast system. • For the PPR documents, the budgets on flood management policy development and the hazard prevention scientific disbursements to the national weather forecast system is examined.
	Financial Monitoring & Tracking	• The planned budget should be guaranteed for the given year, where the flow of finance is monitored and tracked.	• Identify the flow of finance by analysing how the AF has monitored all the budgets throughout the project years. This is done through the analysis of the PPR documents, specifically in the "financial data" provided in the yearly documents. • Analyse the methodological scope, budget implementation plan, expert inputs, and financial risk assessment throughout the internal reports.
	Reporting and Accounting Regulation	• Investigates the reporting and accounting regulations. • Must meet the regulations the project abides with.	• Provides the expenditure and tracks how much budget was used following the original budget plan, enabling a straightforward comparison of expenditure against original plans. • Investigate the expenses through the internal reports, see which areas were dedicated to Georgian flood management policies. • Analyse the external evaluation reports and the regulations the project abided with.
	External Audit Body	• Audit climate-related budget. • The budge should adhere to the law and administrative regulations, which assures the financial rules.	• Observation of the external audit process–specifically in the financial instruments, survey how the AF ensured its accreditation process by allowing an external party to access their project. • Monitor the external evaluation reports provided in the interim, and the final phase of the project. Track how the budget assessed by the external evaluators in the two reports, and investigating the budgets related to flood management in each of the documents.

Source: Bird et al., 2013; AF, "PPR 1, 2, 3 and 4."

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