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**NDFS MITIGATION FINANCE:  
A PORTFOLIO EVALUATION**

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# NDFs mitigation finance: a portfolio evaluation

Fiona Lambe and Annika Hilgert

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# Table of Contents

<b>Summary .....</b>	<b>1</b>
<b>1 About NDF.....</b>	<b>4</b>
<b>2 Portfolio overview: Climate mitigation.....</b>	<b>8</b>
<b>3 Portfolio evaluation .....</b>	<b>25</b>
<b>References.....</b>	<b>54</b>
<b>Appendix 1: List of projects received from NDF.....</b>	<b>56</b>
<b>Appendix 2. Table summarising portfolio and evaluation .....</b>	<b>60</b>
<b>Appendix 3. Coding and methodology .....</b>	<b>65</b>

# Summary

This evaluation of the Nordic Development Fund (NDF) climate portfolio is part of a larger evaluation that aims to determine whether Swedish development finance for climate mitigation is financing efforts that are likely to contribute to emission reductions that are large enough and can be realised quickly enough to significantly contribute to the Paris Agreement's 1,5 C temperature objective. The evaluation covers a selection of 18 NDF projects. Specifically, the evaluation aims to address the following questions:

- I. Scale: Does Swedish development finance go to activities that have the potential to contribute to large-scale emission reductions/mitigation in developing countries?<sup>1</sup>
- II. Time: Does Swedish development finance go to activities whose large-scale contributions can be realised in time, in line with the Paris Agreement?

By addressing these questions, the evaluation of the Nordic Development Fund portfolio aims to determine whether the portfolio is transformative enough to meet the commitments that Sweden has signed up to under the Paris Agreement. Understanding the transformative potential of finance for climate mitigation goes beyond a quantitative measurement of greenhouse gas emissions reductions. Instead, it requires analysis of the potential for wider structural change that could accelerate progress towards the rapid emissions reductions called for under the Paris Agreement. To address the potential for transformative change, this evaluation applies a methodology based on the Climate Investment Fund's (CIF) Principles for Transformational Climate Finance (Climate Investment Fund, 2021). The NDF projects were evaluated against the CIF principles of Speed, Scale, Systemic Change and Relevance as well as Additionality. In addition, the evaluation gathered observations on the expected co-benefits of the projects reviewed, as well as the overall level of transparency in the documentation reviewed.

This is an ex-ante evaluation, meaning that NDF projects are assessed based on the information provided in project documentation about what the project intended to implement, rather than an evaluation of the actual outcomes of projects.

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<sup>1</sup> This includes both emissions reductions and carbon dioxide removals.

The evaluation is based on an initial list of 26 NDF projects that was provide by EBA. The initial list with 26 projects<sup>2</sup> numerically represents 54% of NDF's overall portfolio (48 projects) or 66% of the total financing volume of the overall portfolio. After an initial screening to ensure relevance in terms of timeframe (projects should be current) and mitigation (projects should have a Rio marker for mitigation), the list of relevant projects for evaluation was reduced to 18 which form the basis of this analysis. The sole source of data for the final evaluation of selected NDF projects is project documentation for NDF climate mitigation projects provided by EBA or gathered by the project team through online searches.

### **Key findings:**

- Based on the overall transformative potential scores for each of the 18 projects analysed, we find that two projects score very high, five score high and eleven score low. Considering the value of investments, projects that score very high and high for transformative potential account for 12% and 26% of funding respectively. Projects that score low account for 64% of funding.
- The evaluation finds that five projects accounting for 28% of the funding in the portfolio analysed have strong potential to contribute to emission reductions at scale in developing countries. Seven projects accounting for 30% of the funding of the portfolio analysed have the potential to be realized in line with the time frame of the Paris Agreement.
- Overall, the analysis suggests that there is room for improvement if NDF climate mitigation investments are to align with the Paris Agreement. Just under one third of the projects evaluated are scoring well across all criteria which is needed for them to be considered transformational.
- The projects analysed are largely located in Sub-Saharan Africa and focuses on the energy sector which are important factors for Relevance and transformative potential.
- The projects analysed appear to be strong in terms of the range of co-benefits covered, such as employment, inclusion of marginalised populations including women, and resilience to climate change. However, co-benefits are not consistently described in all projects.

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<sup>2</sup> The list provided by NDF contained 25 projects with unique project codes and one administrative project that did not have a project code, bringing the total to 26. In the summative evaluation report by EBA, the same list of projects is categorised differently, resulting in a project count of 23. See Appendix 1 for a list of NDF projects.

- Issues with data availability hampered the evaluation with some projects lacking basic ex-ante data needed to understand what type of activities would be undertaken or what the expected mitigation potential would be. The lack of available ex-ante data could limit the potential to learn from existing projects.

It is important to recognize that the NDF frequently operates in challenging environments, such as sub-Saharan Africa, where securing financing for climate and development initiatives is inherently difficult. The insights from this evaluation aim to support NDF, its funders, and other organizations with similar objectives in enhancing their efforts by increasing the transformative impact of their projects.



# 1 About NDF

The Nordic Development Fund (NDF) is an international financing institution jointly owned and managed by the five Nordic countries – Sweden, Norway, Denmark, Finland, and Iceland (Nordic Development Fund 2023). The capital base of NDF is taken from the development cooperation budgets of the countries involved, making it part of a broader Nordic development cooperation effort (Nordic Development Fund 2023). NDF was initially established in 1989 with additional capital committed in 1993, 1996, 2000, and 2020 (Spratt et al., 2019; Nordic Development Fund, 2023). According to the Annual Financial Report 2022, NDF's total assets at the end of 2022 were ca. USD 796.4 million (EUR 726.9 million) and NDF had a total accumulated portfolio (2009-2022) of ca. USD 593.9 million (EUR 542.1 million) (Nordic Development Fund, 2023). As of 2022, Sweden provided approximately 37% of the total financing to NDF (Nordic Development Fund, 2023).

## 1.1 Mandate

In 2009, NDF received a 'climate mandate' wherein activities funded by NDF should be focused on the nexus between climate change and development, with a strong focus on Sustainable Development Goal 13 ('Combat climate change'), Sustainable Development Goal 1 ('No poverty') and Sustainable Development Goal 5 ('Achieving gender equality') (Nordic Development Fund, 2023; Skjelvik & Swanson, 2012; Spratt et al., 2019).

As of 2016, NDF is committed to contribute to the realization of the targets set out in the Paris Agreement (Nordic Development Fund, 2023; Spratt et al., 2019). Since then, NDF has developed a portfolio of climate mitigation and adaptation projects in close interaction with its extensive network of strategic partners. The NDF strategy 2020-2025 outlines that at least 50% of funding should go to climate change adaptation which has been identified as a gap in existing, mitigation-focused financing (Nordic Development Fund 2019). There is no goal for funding climate change mitigation projects (Nordic Development Fund, 2019). However, NDF aims to create co-benefits and synergies with other SDGs, taking a holistic approach (Nordic Development Fund, 2019).

NDF focuses on providing catalytic and early-stage financing for projects and mobilizing private-sector financing. A key aim is to establish a

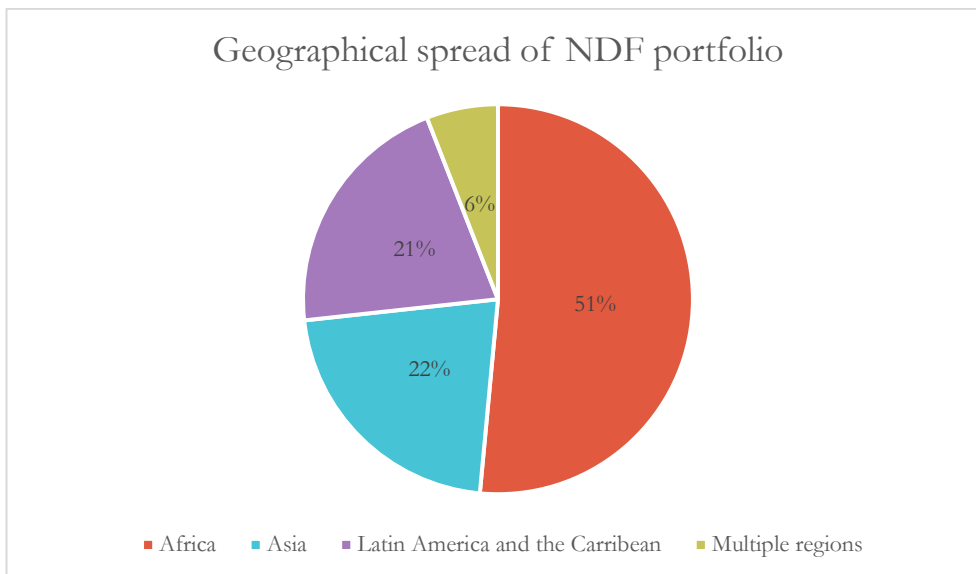
‘pipeline’ of viable, large-scale solutions to climate change, for example through project preparation support and piloting, which is co-financed with public and private investors (Nordic Development Fund 2019). In this, NDF aims to be a link between the private and public sector. NDF often performs a de-risking role, providing risk-tolerant capital at early stages of investment to mobilise co-financing from investors that have higher return expectations (Nordic Development Fund 2019).

## **1.2 General portfolio**

Given that NDF has a climate and development mandate as described above, the entire portfolio aims to address issues at the climate change-development nexus. The current NDF strategy 2020-2025 sets three targets for the portfolio: i) at least 50% of financing should go to adaptation projects, ii) 60% of funding should be allocated to projects in Sub-Saharan Africa, and iii) 50% of financing should be in the form of grants (Nordic Development Fund 2019). Further, NDF has a geographical focus on lower-income countries and countries in fragile contexts.

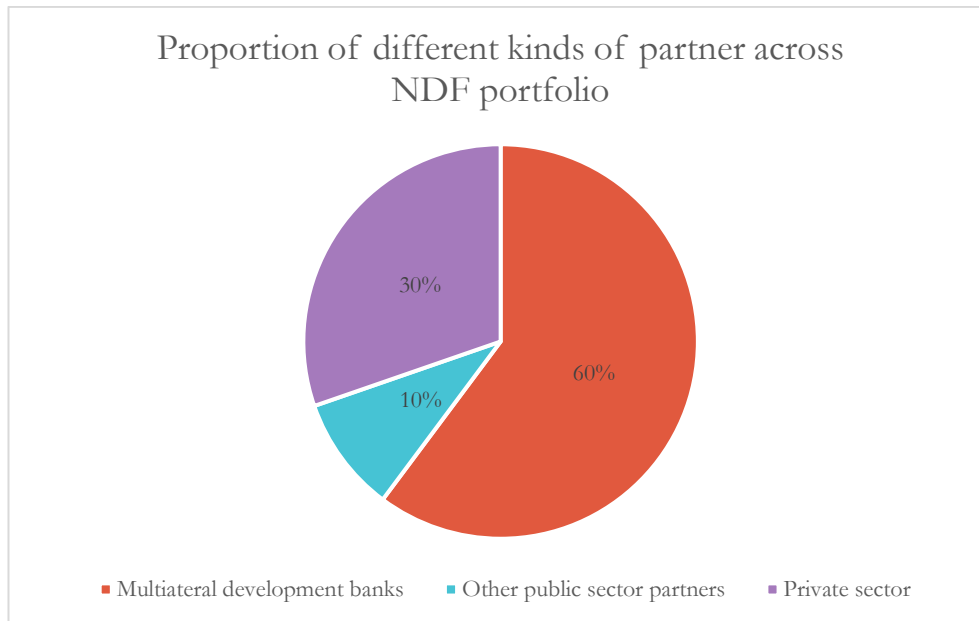
These aims are largely reflected in the current NDF portfolio. At the end of 2022, NDF has a portfolio of USD 393.6 million (EUR 359.3 million) across 48 projects (Nordic Development Fund, 2023). As of 2019, there was a geographical focus on Africa in the portfolio, with more than half of projects located in this region, and around one-fifth of projects located in Asia and Latin America and the Caribbean respectively (Nordic Development Fund, 2019) (See Figure 1). 6% of projects across the portfolio had a geographical focus in more than one region (Nordic Development Fund, 2019).

**Figure 1: Geographical spread of total NDF portfolio (2019)**



All NDF projects are funded and implemented in partnership with one or more external actors (Nordic Development Fund, 2023). The NDF portfolio is mainly implemented in cooperation with the public sector, meaning that most of the financing is allocated to projects that are in partnership with public sector actors like international financial institutions or national banks (See Figure 2). In the accumulated portfolio (2009—2022), projects with public partners account for almost 70% of the value of the portfolio, with multilateral development banks as the most common partner (Nordic Development Fund, 2023).

**Figure 2: Spread of partners across the accumulated NDF portfolio (2009-2022)**



Finally, when considering the value of investments by location, 51% of project funding was allocated to projects in Africa in the accumulated portfolio (2009—2022) (Nordic Development Fund, 2023). These figures are slightly below the goal of allocating 60% of funding to Sub-Saharan Africa stated in the 2020-2025 strategy, and below the proportion of projects located in Africa in 2019. The majority of projects (62.2%) have both a mitigation and adaptation component (Nordic Development Fund, 2023). Of the remaining projects, 14.9% focus only on mitigation and 22.9% only on adaptation. (Nordic Development Fund 2023).

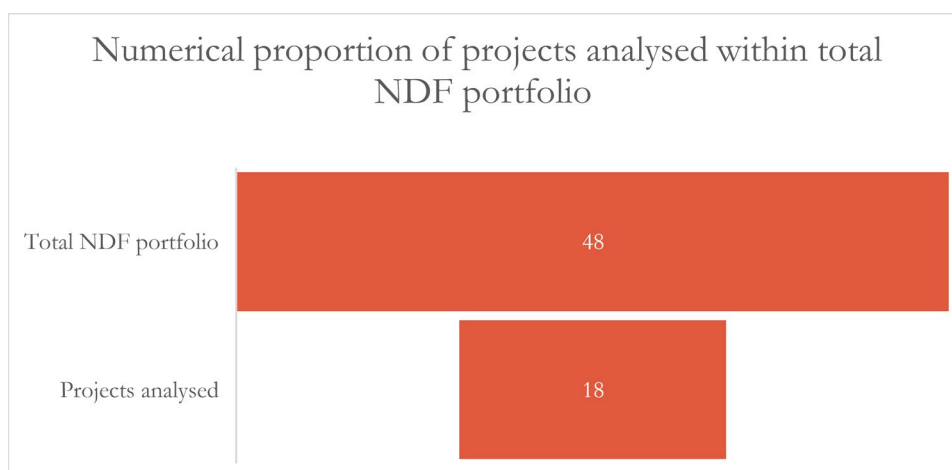
## 2 Portfolio overview: Climate mitigation

### 2.1 Introduction and Overview

This project, a component of a larger evaluation commissioned by EBA, aimed to analyse the transformative potential of climate mitigation projects funded by NDF. The team was provided with a list of 26 NDF climate mitigation projects by EBA which can be found in Appendix 1. An initial screening of these projects was conducted to assess the relevance of projects to the scope of the analysis. Six projects were excluded for not being current (still ongoing in 2022 based on the documentation available), one for not being a mitigation project and one due to lack of data. Subsequently, 18 projects were assessed as relevant for analysis. Throughout this report with the exception of section 2.2, the analysis is based on these 18 projects. A table summarising the studied portfolio can be found in Appendix 2.

Numerically, the 18 mitigation projects analysed represent around 38% of the overall NDF portfolio (48 projects) numerically (See figure 3).

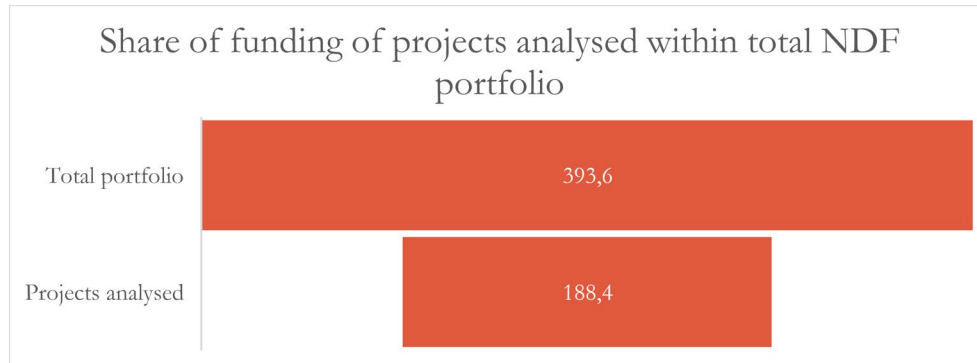
**Figure 3: Numerical proportion of projects analysed within total NDF portfolio**



However, a different picture emerges if we consider the value of investments (See Figure 4). The projects analysed (USD 188.4 million) account for 48% of the value of the total NDF portfolio. This means that these projects account for a bit more than a third of the total portfolio

numerically (38%) but account for almost half of the value of the total NDF portfolio (48%). This indicates a comparatively large size of investments for the climate change mitigation projects analysed here.

**Figure 4: Share of funding of projects analysed within total NDF portfolio**



For this analysis, projects are divided into those with direct mitigation outcomes and indirect mitigation outcomes. Projects with both direct and indirect mitigation outcomes were included in the analysis. Direct mitigation outcomes are those that directly reduce the level of greenhouse gas emissions, such as increased renewable energy production to replace fossil fuel-based electricity generation, or increased energy efficiency to reduce overall energy consumption (IPCC, 2022). Indirect mitigation outcomes contribute more indirectly to reducing greenhouse gases, for example through capacity building, technical assistance and institutional support to facilitate the implementation of direct climate mitigation outcomes. This analysis of projects by evaluators is distinct from NDF’s classification, which applies OECD DAC Rio Markers to define its climate focus per project, on which the initial list of projects received from NDF was based on.

Overall, projects analysed span across at least 6 sectors, with several projects working across different sectors in a circular economy and/or multisectoral approach. The projects span a large range of time frames, ranging between 3 and 20 years, with the last projected end date in 2042. The projects also vary substantially in size, with project budgets spanning from USD 4.4 million to USD 880 million in total project size. Common partners for co-funding include multilateral banks and private sector organisations, while governments are less common. The portfolio spans 4 different financial instruments: non-reimbursable grants, reimbursable grants, loans (including concessional loans), and equity, with grants being the most common.

## **2.2 Proportion of NDF funding within total funding for projects analysed**

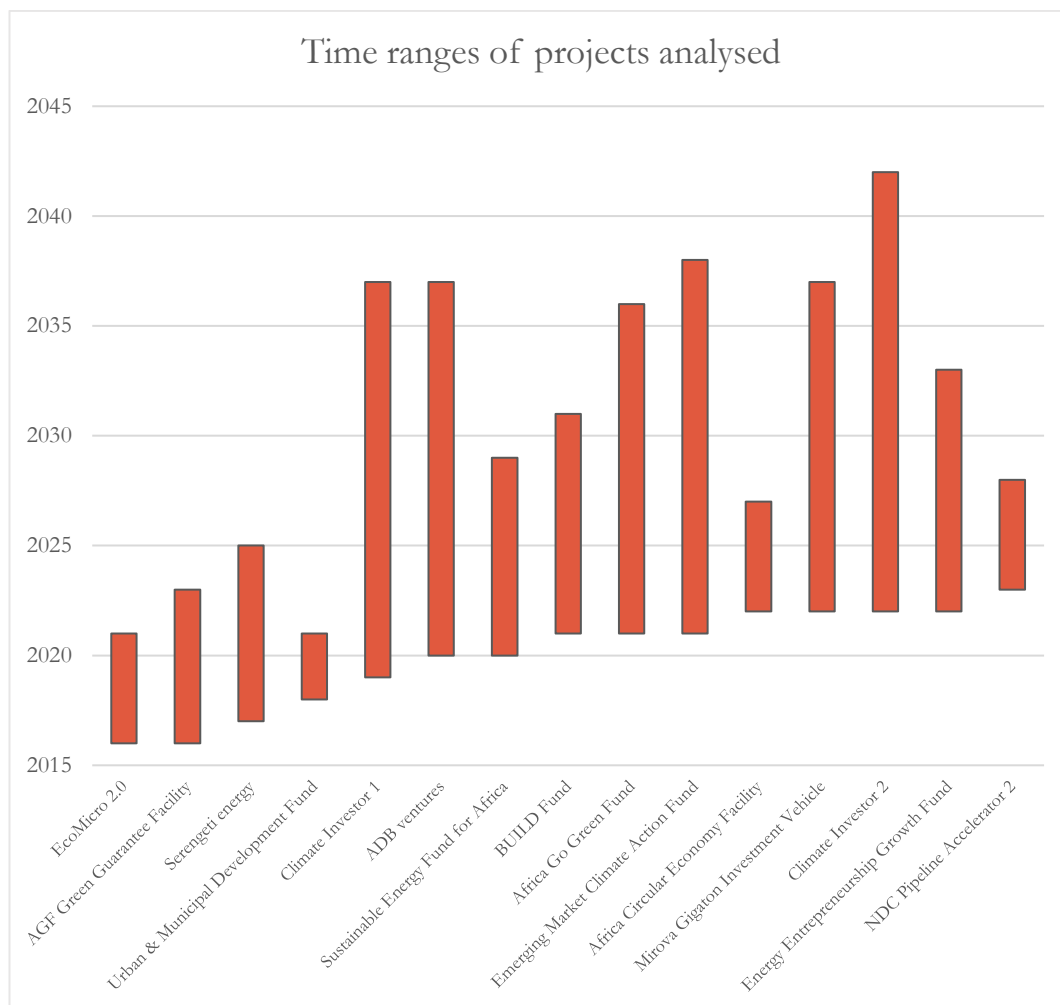
While the discussion in section 2.1 refers to NDF's investments in only, this section considers the total funding amount provided for projects analysed, including financing provided by co-funding partners. All projects are co-financed and NDF's contribution per project ranges between approximately USD 2.2 million and USD 24 million while total funding amounts vary between USD 4 million and USD 880 million. The average volume of funding per individual project from NDF is USD 10.5 million.

For the 18 projects included in the analysis, the total funding amount is not provided or unclear for two projects in the data available to the team. For the remaining 16 projects, the total funding amount is USD 3.7 billion. NDF's contribution to the total value of climate mitigation projects analysed is USD 118.4 million which represents approximately 5,1% of the total funding value.

## **2.3 Timelines of projects**

Returning to the core focus of the report, the 18 projects analysed, the timelines for projects vary significantly as outlined in Figure 5 below, but average at 11 years. The shortest timeline is three years for the Urban and Municipal Development Fund while the longest is Climate Investor 2, which spans 20 years. There are three projects for which the timeline is unclear or unavailable.

**Figure 5: Range of timelines across portfolio analysed**



## 2.4 Geographical spread of the projects analysed

Figure 6 below shows the geographical distribution of projects analysed across three regions<sup>3</sup>. Numerically, the majority of projects are located in Africa, with 12 out of 18 projects having ‘Africa’ as a location marker. Specifically, 8 projects are in Sub-Saharan Africa<sup>4</sup>. Three projects are

<sup>3</sup> Note that projects may have 2 different location markers if activities are spread across two different regions, in which case projects are counted in both categories. Projects with more than 2 location markers are classified as global.

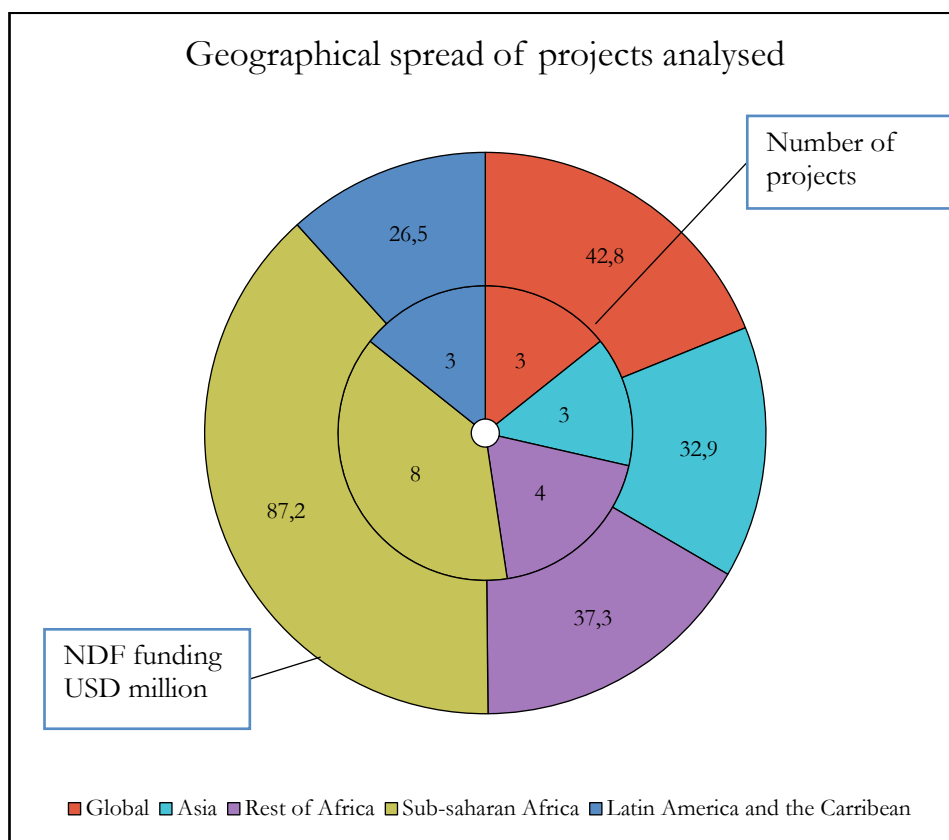
<sup>4</sup> Note that institutions like NDF have been requested by their owners to provide a significant share of their resources to countries in sub-Saharan Africa since it is more difficult for these countries to provide financing themselves or access other funding sources, compared to other regions and countries in higher income categories.



located in Asia and three in Latin America and the Caribbean. Finally, three projects indicate a global scale.

These proportions are largely reflected in the value of investments. Of the projects analysed, 5% of funding is allocated to projects in Africa, of which 38% to projects located in Sub-Saharan Africa. There are the same number of projects located in Asia and Latin America and the Caribbean, but projects in Asia account for a larger share of investments (15%) than those in Latin America and the Caribbean (12%). The three global projects account for 19% of the value of the portfolio analysed.

**Figure 6: Geographical spread of projects analysed**



If we zoom out to the total funding for projects overall (including co-funders), we see that projects located in Africa account for 82% of funding but a much smaller portion is focused on Sub-Saharan Africa (36%). Compared to NDF financing, in terms of total funding, projects located in Latin America and the Caribbean make up a much smaller portion of total funding for projects, only around 2%, while projects located in Asia make up a much larger portion at 47%.

## 2.5 Sectoral spread of the projects analysed

The climate mitigation projects analysed span at least six sectors, with five cross-cutting and multi-sectoral projects (See Figure 7 below).<sup>5</sup> The different sectors used for analysis were developed deductively based on the information about impact and outcome areas provided in project documentation and refined in an iterative process to categorise projects into overarching areas for intended outcomes. A brief description of the sectors is available in Table 1 below.

**Table 1: Description of Sectors**

**Banking and Financial Services: Projects providing access to green finance and microfinance to ensure local and regional access to finance for sustainability**

**Circular Economy<sup>6</sup>/Multisectoral: Projects that address more than 2 different sectors, often in line with an overall circular economy<sup>7</sup> approach**

**Climate Technology: Projects developing accessible technologies used across different contexts to allow for mitigation and/or adaptation to climate change**

**Energy: Projects focusing on increasing the share of renewable energy in the system, increasing the efficiency of the energy system, and widening access to energy**

**Infrastructure: Projects developing low carbon and climate resilient infrastructure across different areas, for example for sanitation and hygiene access**

**Transport: Projects developing physical infrastructure to enable low-carbon travel, such as public transport systems**

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<sup>5</sup> Note that projects may have two different sector markers if activities are focused across different sectors, in which case projects are counted in both categories. Projects with more than 2 sector markers are classified as ‘multiple’.

<sup>6</sup> Based on the data made available to the evaluation team, two projects are focussed on Circular economy: NDC Pipeline Accelerator II and the Africa Circular Economy Facility. Checking in the NDF project database, both mention circular economy. In the list of active mitigation projects received by the evaluation team from NDF via EBA, the African Circular Economy Facility is included.

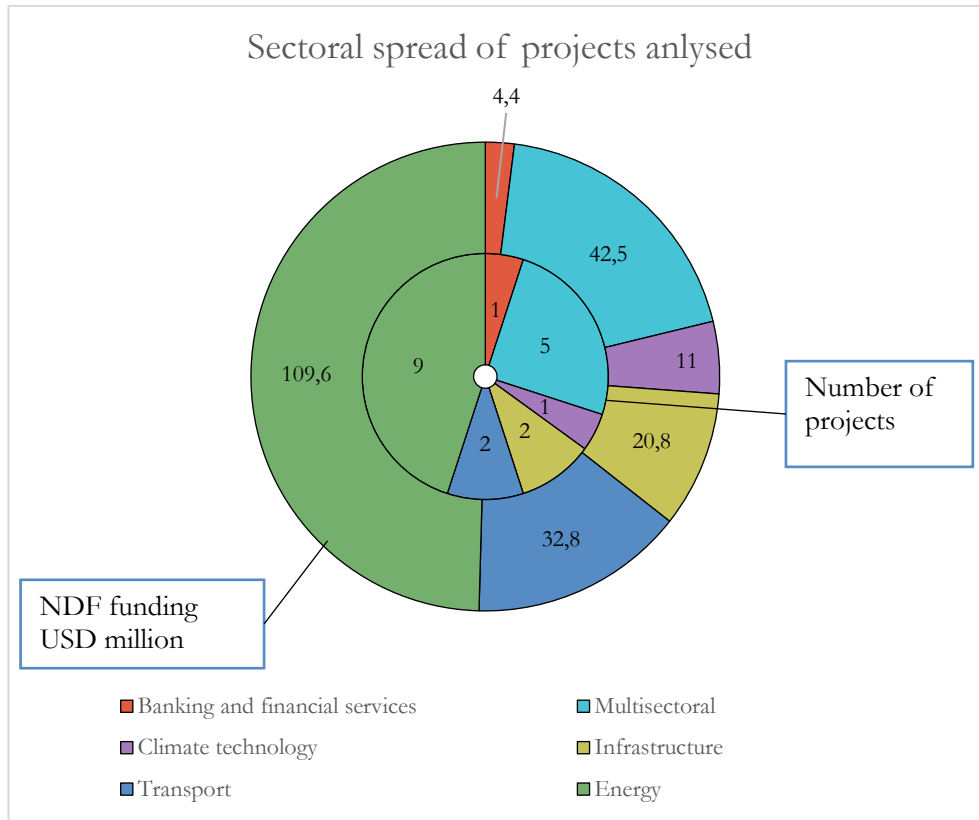
Some of these projects have a circular economy approach which explicitly aims to transform the economic system while others have a thematic focus which required a multisectoral approach, including for example the infrastructure, energy, agriculture, and land use sectors. The most prevalent sector is energy, with nine projects addressing the energy sector, which represents around 45% of the portfolio analysed numerically and 50% of funding (See Figure 7)<sup>8</sup>.

The second most common sectoral classification is circular economy/multisectoral with five projects (25% numerically), which account for a lower proportion of the funding in the portfolio analysed at 19%. There are two projects focused on the transport sector, accounting for 10% numerically but 15% in terms of funding. At the same time, the two projects in the infrastructure account for the same share numerically (10%) but a lower share in terms of funding (9%). There are two sector categories with only one project, climate technology, and banking and financial services. These vary slightly in terms of the proportion of funding they account for in the portfolio analysed, between 5% for climate technology, and 2% for banking and financial services.

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<sup>8</sup> Note that projects may have two different sector markers if activities are focused across different sectors, in which case projects are counted in both categories. Projects with more than 2 sector markers are classified as 'multiple'.

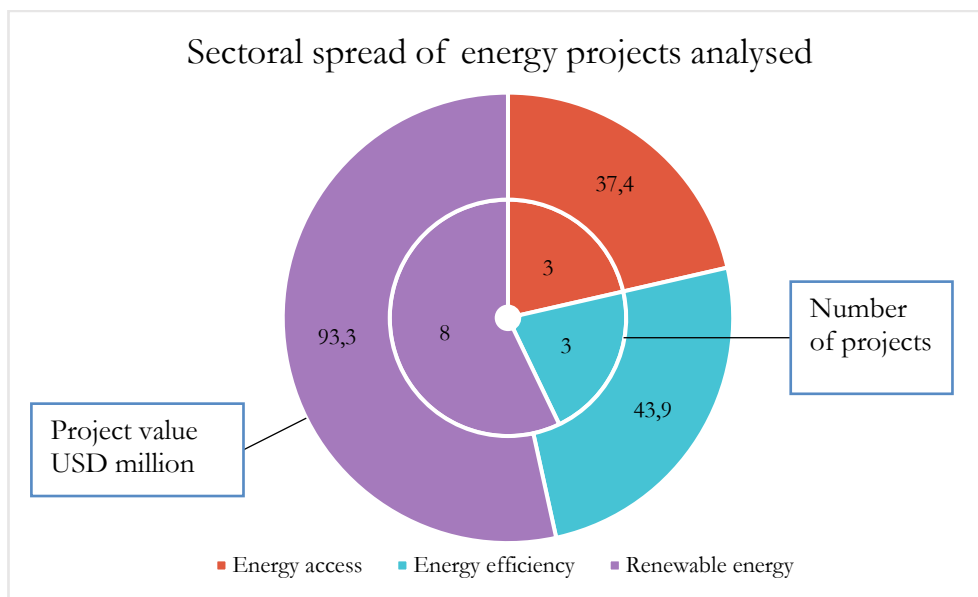
**Figure 7: Sectoral spread of projects analysed**



Considering the total funding for projects (including co-funders), 71% of funding is allocated to projects with a focus on energy and only 3% to projects that are multisectoral or focus on a circular economy. Further, projects in the transport sector account for 28% of total funding and projects in the infrastructure sector for 24% of total funding, both for 2 projects respectively.

Within the energy sector, eight projects have a focus on clean energy/renewables, and three projects have an additional focus on energy efficiency and energy access (see Figure 8)<sup>7</sup>. These proportions are largely reflected in the value of investments for projects analysed in the energy sector, with projects focussed on clean energy/renewables accounting for 53% of funding.

**Figure 8: Distribution of energy projects analysed across sub-sectors**



## 2.6 Financial instruments across the projects analysed

Figure 9 shows that the projects analysed mainly consists of grants and some loans and equity, though it includes four distinct types of financial instruments, including both non-reimbursable and reimbursable grants. Projects may make use of a combination of multiple different instruments to suit the needs of a project. The four different financial instruments used within the NDF portfolio are briefly defined in Table 2, based on the *2020 Joint Report on Multilateral Development Banks' Climate Finance (2021)*.

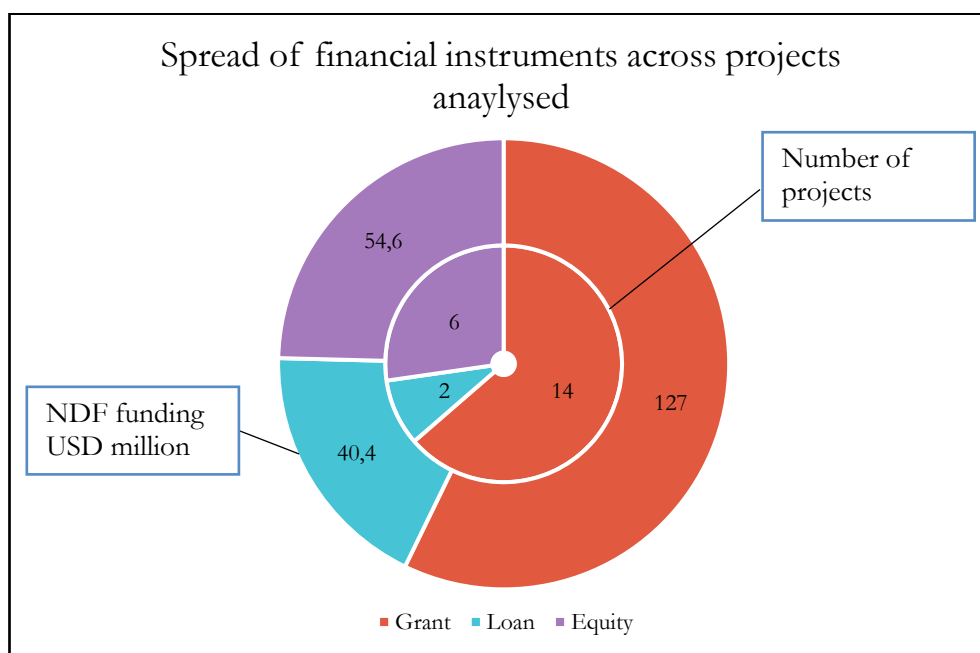
**Table 2: Definitions of financial instruments**

<p><b>Equity:</b> Ownership or claim to the assets of a company proportional to the number and kind of shares owned.</p>
<p><b>Non-Reimbursable Grant:</b> Financial transfers of cash, goods, or services for which repayment is usually not required</p>
<p><b>Reimbursable Grant:</b> Financial transfers of cash, goods, or services for which parts of the transfer may have to be repaid but often to better conditions compared to a loan.</p>
<p><b>Loan:</b> Financial transfers of cash, goods, or services for which repayment is required.</p>
<p>Source: Based on the <i>2020 Joint Report on Multilateral Development Banks' Climate</i></p>

Grants are the most common financing mechanism and make up more than half of all financial instruments used (14 projects) as well as accounting for 57% of the funding for the projects analysed (see Figure 9)<sup>9</sup>. However, the data does not consistently indicate whether grants are reimbursable or not. If we zoom out to the total funding for projects in the portfolio (including from co-funders), the proportion of grants is even larger, accounting for 82% of funding.

The second most common financial instrument is equity which is used in six projects and accounts for 25% of the funding of projects analysed. Following, equity are loans (including concessional loans), which are used in only two different projects but account for a higher share of funding at 18% of the projects analysed. This indicates that the funding value for projects funded through loans is comparatively larger. In all cases, projects are co-financed with other financing partners as is standard practice within NDF.

**Figure 9: Spread of financial instruments across projects <analysed**



Overall, grants are the dominant financing instrument, though they account for a higher share of projects numerically (64%) than the value of investments of projects analysed (57%), indicating comparatively smaller investment sizes. Similarly, projects financed through equity account for a slightly lower share of funding in the projects analysed (25%) than the

<sup>9</sup> Note that projects may use two different financing instruments, in which case projects are counted in both categories.

share of projects numerically (27%). On the other hand, projects involving loans (incl. concessional loans) as a financing instrument account for a lower share of projects numerically (9%) but 18% of the value of investments in the projects analysed, suggesting comparatively higher investment values.

## 2.7 Partnerships across the projects analysed

NDF only finances projects in partnership with other organisations, to maximise its catalytic impact. In the climate mitigation projects analysed, ex-ante a majority of projects (11) have only one type of partner compared to 7 projects that have multiple, though the number and kinds of partners may change in the fundraising phase.<sup>10</sup>

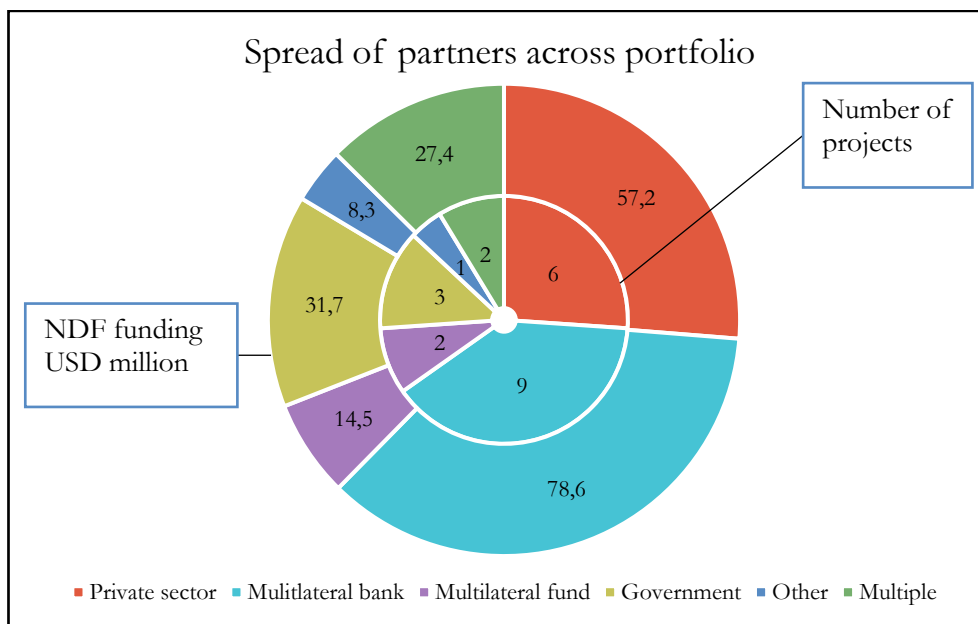
Figure 10 shows the proportion of NDF partners by type, with multilateral banks being the most common partner across projects in the portfolio (9 projects, 39% of projects numerically). The most common multilateral bank partner is the African Development Bank for 4 different projects accounting for USD 24.7 million. If we consider the value of funding in the projects analysed, multilateral banks are still the dominant partner type and make up a similar portion of the projects at 36%. However, if we consider the total funding value of projects (including co-funding), projects in partnership with multilateral banks account for a lower share at 31% of the projects analysed.

The second most common partner is the private sector for six different projects, most commonly fund managers and private financing institutions. These projects account for 26% of funding across the projects analysed. If we consider the total funding for projects (including co-funders) across the projects analysed, projects in cooperation with the private sector account for a higher share of funding at 57%. Less common financing partners are governments, which are part of 3 projects and account for 15% of the funding of the projects analysed.

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<sup>10</sup> Note that projects may have two different partner markers if two different partners are named, in which case projects are counted in both categories. Projects with more than two partners markers are classified as 'multiple'.

**Figure 10: Spread of partners across projects analysed**



Overall, multilateral banks are the dominant financing partner, accounting for a slightly lower share of funding in the projects analysed (36%) than the share of projects numerically (39%). Projects with more than 2 partners (multiple) account for a somewhat higher share of funding in the projects analysed (13%) than the share of projects numerically (9%). For all other partners, the share of projects numerically and the share of funding allocated to them are approximately aligned.

## 2.8 Investment rationales across the projects analysed

For each project, an investment rationale, that is the logic behind the investment, is identified. Across the projects analysed, seven different investment rationales were identified (see Figure 11).<sup>11</sup> Only two of the 18 projects have only one investment rationale, which was to catalyse additional funding. All other projects have multiple different investment rationales associated with them.

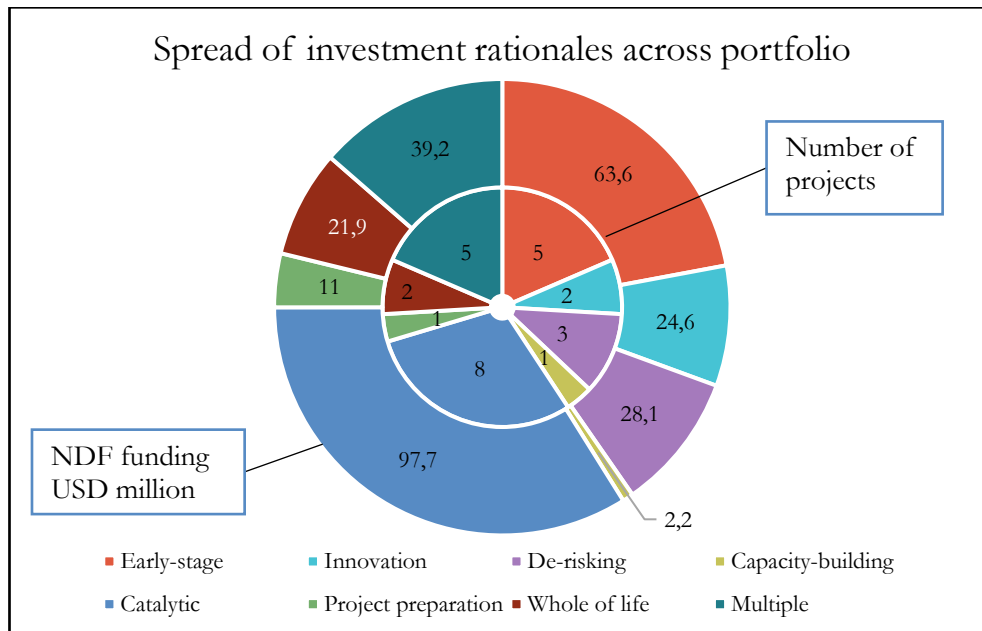
The most common investment rationale is ‘catalytic’ which means that the logic of the investment was to catalyse additional funding, usually from

<sup>11</sup> Note that projects may have up to two different investment rationales, in which case projects are counted in both categories. Projects with more than two investment rationales are classified as ‘multiple’.



more risk-averse investors across the private and public sectors. Numerically, 8 different projects have a catalytic investment rationale which accounts for 34% of the funding in the projects analysed.

**Figure 11: Investment rationales across the projects analysed**



Closely linked to catalysing additional funding, for three projects the investment rationale is explicitly to de-risk investments, which account for 10% of the funding in the projects analysed. Similarly, five projects have early-stage financing as an investment rationale, accounting for 22% of the funding in the projects analysed. Five projects have multiple investment rationales, that is more than two, and account for 14% of the funding in the projects analysed. Finally, two projects have “Whole of Life Funding” as an investment rationale, which aims to address all stages of project financing and includes catalysing and de-risking. These account for 8% of the investments in the projects analysed.

Overall, catalytic investment rationales are dominant across the projects analysed, accounting for a higher share of funding in the projects analysed (34%) than the share of projects numerically (30%)<sup>12</sup>. Projects with multiple investment rationales have a somewhat higher share of projects numerically (19%) than the share of funding in the projects analysed (14%). On the other hand, projects with an early-stage financing rationale have a higher share of funding (22%) compared to the numerical share (19%). The capacity-building project accounts for 4% of projects

<sup>12</sup> Note that the numerical shares is based on double-counting projects if they have two different investment rationales (See previous footnote).

numerically but only 1% of funding. For other investment rationales, the share of projects numerically and the share of funding allocated to them are largely aligned.

## 2.9 Direct and indirect mitigation across the projects analysed

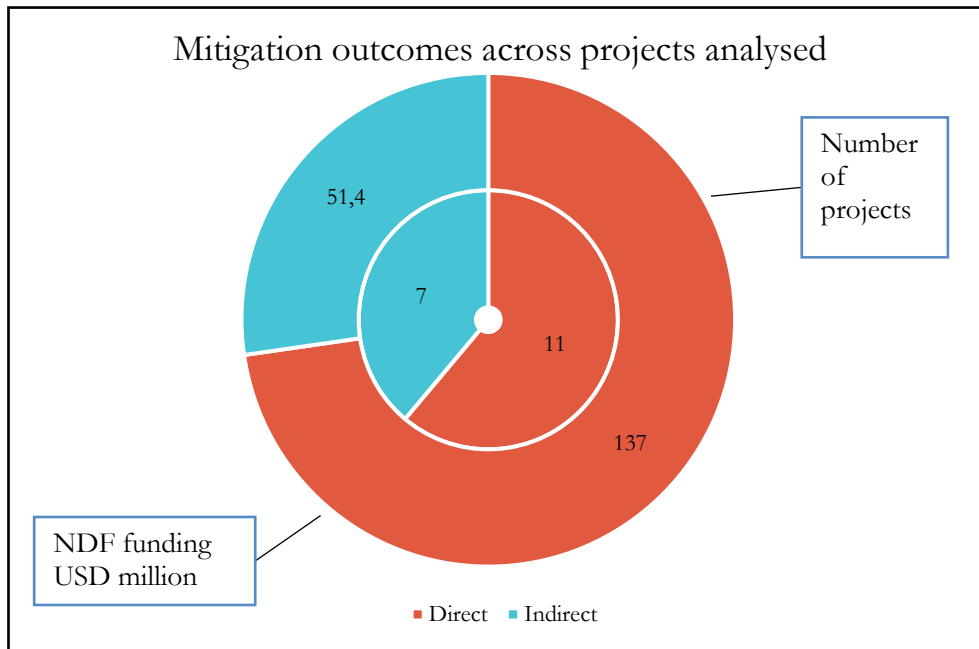
Considering the mitigation aspect of the projects analysed, we find that eight out of 18 projects provide a mitigation figure, that is the amount of carbon emissions that are avoided through the project. As this is an ex-ante evaluation, this figure is the amount of carbon emissions expected to be avoided through the project rather than data reported on the actual outcomes or results of these projects. The figures range substantially from 1.2 million tons of CO<sub>2</sub> avoided per year to 0.235 million tons of CO<sub>2</sub> per year, and are generally aligned with the funding size of the project. For seven of the eight projects that provide a mitigation figure, total investment numbers are available, allowing us to determine the mitigation-to-investment ratio. Across these seven projects, the average mitigation-to-investment ratio indicates that approximately every USD 27.1 mitigates one ton of CO<sub>2</sub> emissions.

Across the selected projects analysed, the spread between projects with a *primary* focus on direct and indirect mitigation outcomes is shown in Figure 12 below, showing that numerically almost two-thirds of projects (61%) have a primary focus on direct mitigation outcomes (11 projects).<sup>13</sup> However, if we consider the value of projects with a direct mitigation focus, this figure rises to 73%. This means that while 7 projects have a primary focus on indirect mitigation, these projects only account for 27% of the investments in the projects analysed, indicating an overall focus on projects with a primarily direct mitigation outcome.

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<sup>13</sup> Note that this classification of projects into direct and indirect is done by the evaluators based on the definitions provided on page 7. NDF applies OECD DAC Rio Markers to define its climate focus per project.

**Figure 12: Proportion of mitigation types across projects analysed**

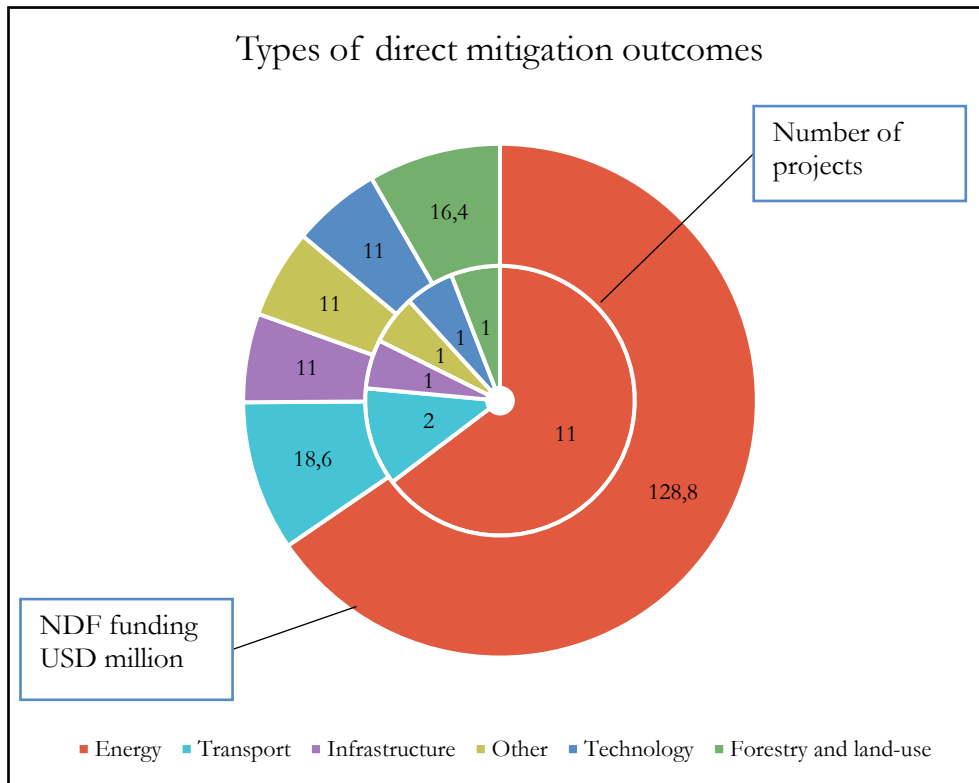


However, even when projects are primarily aimed at direct mitigation, they can have indirect mitigation outcomes and vice versa. For example, a project to develop renewable energy networks (direct mitigation) can have indirect mitigation effects if it provides training and capacity-building to stakeholders involved in the project. Figures 13 and 14 below illustrate the breakdown of direct and indirect mitigation outcomes into relevant outcome categories.<sup>14</sup>

In total, 11 projects have a primary focus on direct mitigation and three additional projects have direct mitigation outcomes as a secondary aim. Of these direct mitigation outcomes, increasing renewable energy and increasing energy efficiency are the most common numerically (11 projects) and similarly account for 65% of the funding value of projects analysed. Less common direct mitigation outcomes are low carbon transport (2 projects) which account for 9% of the value of the projects analysed. There are several outcomes which are only applied to one project, including developing low-carbon infrastructure, developing climate technology and changes to land-use and forestry which account for 6%, 6% and 8% of the funding of projects analysed respectively.

<sup>14</sup> Note that projects can have up to two direct/indirect mitigation subcategory outcome, in which case they are counted in both areas. If they have more than two, they are classified as multiple.

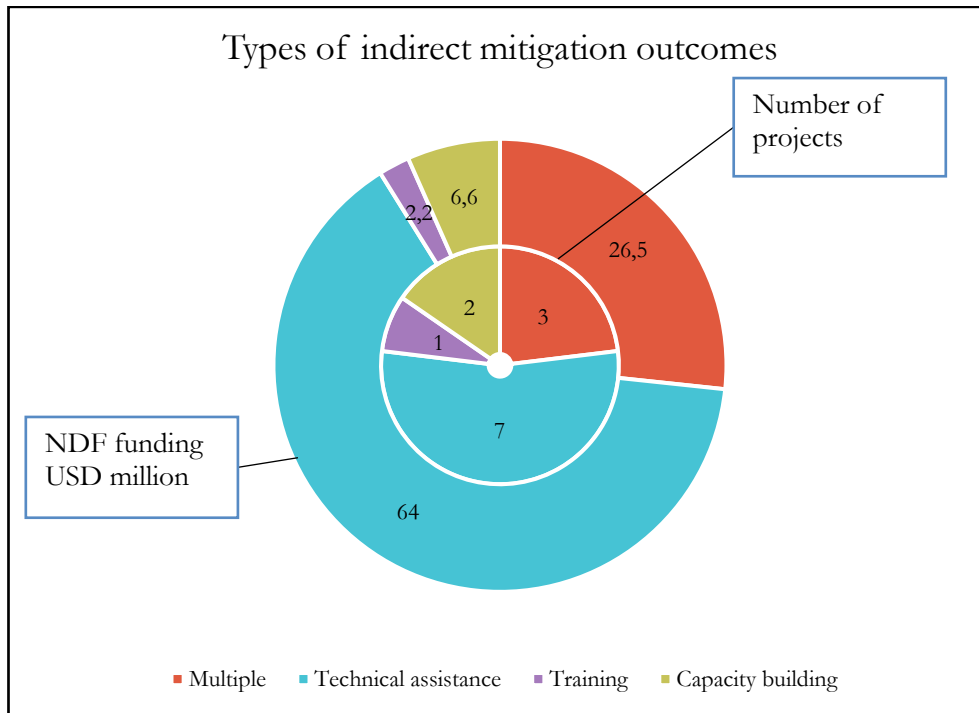
**Figure 13: Proportion of different kinds of direct mitigation outcomes in projects analysed**



12 projects have indirect mitigation outcomes, seven projects that have it as a primary aim and an additional five projects that have it as a secondary aim (see Figure 14). Technical assistance for project development and implementation is the most common outcome and applies to seven different projects, accounting for 64% of the value of investments in the projects analysed.

Less common outcomes for indirect mitigation are capacity building and development, both at the individual and institutional level, which apply to two projects and account for 7% of the funding of projects analysed. Three different projects and 27% of funding in the projects analysed are allocated to projects with multiple indirect mitigation outcomes, which means more than 2 different ones. These involve multiple activities linked to indirect mitigation outcomes which may include capacity-building, educational initiatives, institutional strengthening, development of regulatory frameworks, awareness-raising, and business skills.

**Figure 14: Proportion of different kinds of indirect mitigation outcomes across projects analysed**



## 3 Portfolio evaluation

### 3.1 Overview of method, approach, and key limitations

As described above, this evaluation aims to address the following key questions:

1. Does Swedish development finance go to activities that have the potential to contribute to large-scale emission reductions/mitigation in developing countries?<sup>15</sup>;
2. Does Swedish development finance go to activities whose large-scale contributions can be realised in time, in line with the Paris Agreement?

By addressing the questions, the evaluation seeks to establish whether the NDF climate mitigation portfolio is transformative enough to meet the commitments that Sweden has signed up to under the Paris Agreement.

As mentioned earlier, the SEI team received a list of climate mitigation projects from EBA. Following an initial screening for relevance to the scope of this analysis, 18 projects were included for further analysis. These projects were reviewed and form the basis of the conclusions presented here. To conduct the evaluation, for each project the reviewers assessed four of the five CIF principles (Relevance, Systemic change, Speed and Scale), as well as Additionality. Criteria were established for assessing how projects address each principle. The review methodology is described in detail in Appendix 3.

It is important to note that NDF does not use the CIF criteria for project selection. Instead, NDF applies the OECD DAC Rio Markers to define the climate focus of each project. This means that the research team assesses and classifies projects differently than NDF does. The portfolio was split evenly between two reviewers who applied the framework independently. After evaluating three projects each, the reviewers held a calibration meeting to check that they were applying the framework consistently and to discuss emerging challenges, including data availability (see limitations section below).

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<sup>15</sup> This includes both emissions reductions and carbon dioxide removals.

A second calibration check-in took place once all projects were reviewed, again to ensure consistency in the application of the analytical framework. During the second calibration meeting, it was noted that since the CIF principles Scale and Additionality had two evaluation criteria whilst others had three, the scoring of projects on those principles may have been impacted. To address this an additional criterion for Scale (What is the ratio of private finance mobilized for every unit of public money?) and Additionality (Is there mention of risk reduction/de-risking) was added and all projects were reanalysed based on the updated CIF criteria. A final calibration check took place after the analysis was completed to assess whether projects were scored similarly across all three teams.

## 3.2 Limitations

The main limitation of the analysis relates to inconsistency in the type of data available for the evaluation. For some projects, a detailed project proposal was available, containing information about the project's rationale or theory of change, activities funded, their mitigation potential, etc. However, for others no project proposal was made available and instead, the reviewers gathered basic data from various sources, including websites, project brochures and Environmental, Social and Governance (ESG) plans and reports which did not provide the same level of detail. Thus, there is the possibility that projects might have scored better if more detailed information had been provided<sup>16</sup>. The analysis was compiled based on desk research and was thus limited to the insights available in the project documents. Stakeholder interviews were not conducted since it was outside the scope of the portfolio assessments.

Finally, as indicated previously, this is an ex-ante evaluation, meaning that NDF projects are assessed based on the information provided in project documentation about what the project intended to implement, rather than an evaluation of what was actually achieved. In line with this, it is important to note that more detailed projected outcomes and targets for projects are often only available from the inception phase, rather than ex-ante, especially for investment funds.

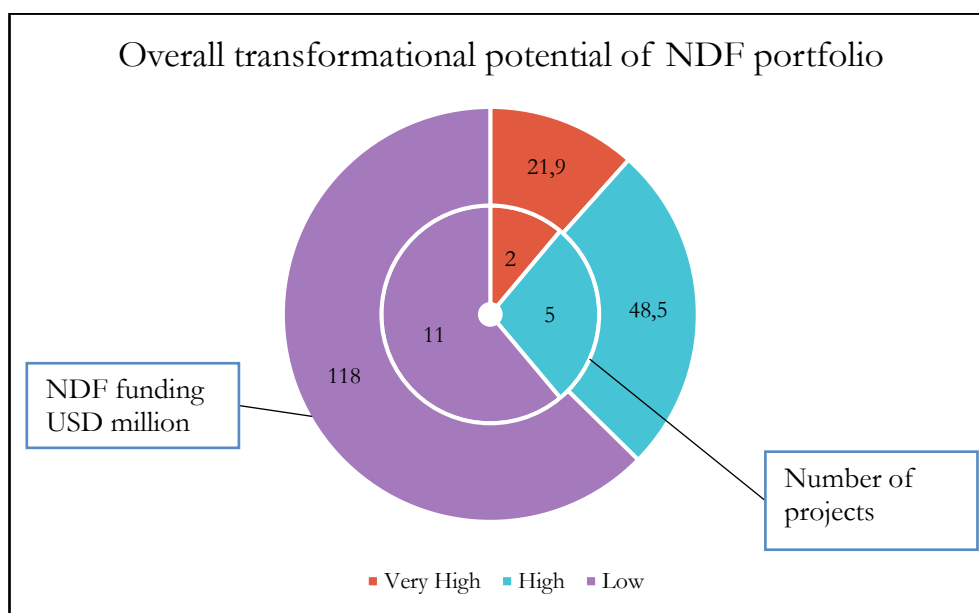
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<sup>16</sup> Additional information about 14 NDF projects was requested by EBAs secretariat in October 2023. NDF noted that it was not in a position to share the project documentation for the listed projects (mail conversation October 30 2023). NDF offered to share additional information with the team after the evaluation had been finalised.

### 3.2 Overall conclusion: an overview of the transformative potential of the projects analysed

Based on the overall transformative potential scores for each of the 18 projects analysed, we find that two projects score very high, five score high, and 11 score low (see Figure 15 below). Across the 11 projects that scored “low”, the average score is 6 (the range for a low score is 4-7 points). The spread of transformative potential looks similar if we account for the investment value of the portfolio analysed. Projects that score very high and high account for 12% and 26% of the funding respectively, which is similar to the percentage of the portfolio in numerical terms at 11% and 28% respectively. Projects that score low account for 63% of the funding of projects analysed, a slightly higher portion than in numerical terms at 61%. There are no projects that score ‘very low’.

**Figure 15: Overall transformational potential of projects analysed**



None of the projects in the low category meets all of the criteria for Systemic Change. Three projects meet all the criteria for Speed and only one project meets the criteria for Scale. In terms of the total value allocated to projects scoring low, the projects scoring yes for Speed account for 16% and the project meeting all criteria for Scale for 14% of funding.

Seven of these projects score “partially” for all three CIF categories Speed, Scale and Systemic Change, accounting for 43% of funding for all projects



analysed. Seven projects in the low category are globally relevant, that is, relevant to the measures recommended in the Paris Agreement. These accounted for 75% of the value of all projects scoring low. Three projects are deemed additional, and seven are partially additional, that is, they meet one of the criteria for Additionality. One project is found not to be additional. Overall additional and partially additional projects account for 86% of the value of projects scoring low.

### **3.3 What do transformative and less transformative projects look like?**

Below we present a discussion of the projects that score on the high and low end of the scale, based on an analysis of the two highest-scoring projects and the lowest-scoring projects.

In the “very high” category, two projects, Climate Investor 1 and Climate Investor 2 score 11 points each, meaning that they score well on both Scale and Relevance, as well as on the other criteria (see Table 3 below).

Climate Investor 1 provides finance to accelerate the development, construction, and implementation of renewable energy infrastructure projects in emerging markets in Africa, Asia, Latin America and the Caribbean. Climate Investor 2 invests in water, sanitation and ocean infrastructure projects, including water supply, green shipping, waste-to-energy systems and solid waste management in emerging markets of Africa, Latin America, and Asia.

Both projects are funds established to provide whole-of-life financing, that is, financing to catalyse private sector investment and de-risk early-stage developments and finance for project development and construction. Climate Investor 1 and 2 are the two largest projects in terms of the amount of total funding (USD 821.5 million and USD 880 million respectively) and NDF contributes USD 5.5 million and USD 16.4 million respectively to the two projects. The average funding per project from NDF is USD 10.6 million, such that the investment for Climate Investor 1 is considered to be relatively small and the investment for Climate Investor 2 is relatively large. These two projects account for around 11% of the portfolio in numerical terms and 12% in terms of the value of investments of the portfolio analysed.

Both projects also have relatively long timeframes of 18 years for Climate Investor 1 and 20 years for Climate Investor 2. The two projects also present the highest projections for CO<sub>2</sub>e mitigation over the project lifetime of the entire NDF portfolio (21.6 million tonnes CO<sub>2</sub>e for Climate Investor 1 and 44.65 million tonnes CO<sub>2</sub>e for Climate Investor 2).

**Table 3: Overview of projects with high transformative potential**

Project	Total Funding Amount (USD million)	NDF funding amount (USD million)	Type of instrument	Rationale	Timeframe	Mitigation potential	Sectors
Climate Investor 1	821.5	5.5	Grant	Whole-of-life financing including Catalytic finance and de-risking	18 years	21.6 million tons CO <sub>2</sub> e	Renewable energy, energy access and power generation
Climate Investor 2	880	16.4	Grant	Whole-of-life financing including Development Fund and Construction Equity Fund	20 years	44.65 million tons CO <sub>2</sub> e	Water, sanitation and ocean infrastructure projects

According to the project documentation analysed, Climate Investor 1 is highly additional and will build, in some countries

“the first IPPs [Independent Power Producers] and plants of the particular technology and so kickstarting the renewables market, whilst delivering and demonstrating a new way of financing [that is, whole-of-life] renewable energy and infrastructure projects in developing countries using private sector commercial and institutional capital” (Nederlandse Financierings Maatschappij voor Ontwikkelingslanden (FMO), 2018).

In other words, the project is clearly seeking to fund new approaches to delivering renewable energy in developing markets. Climate Investor 1 shows promise as a project with the potential to deliver impacts at the speed and scale called for by the Paris Agreement. This is so since the funds are designed to catalyse private investment and are structured with

a 15-year investment period with a mechanism to recycle capital, extending the time horizon of the project and

“enabling a greater number of projects to become operational in a faster time and through the same commitment of capital by investors, resulting in a greater global societal and environmental impact” (Nederlandse Financierings Maatschappij voor Ontwikkelingslanden (FMO), 2018).

Given that Climate Investor 1 includes a development fund for early-stage projects as well as funds to support the long-term operationalization of projects and capacity building / technical support, it scores well in terms of Systemic Change. Climate Investor 1, focused entirely on financing renewable energy, is aligned with the goals of the Paris Agreement, and thus considered relevant for climate mitigation.

Climate Investor 2 builds on Climate Investor 1, which should be viewed as a strength. The key questions used to evaluate the CIF principal Speed include “Is the investment providing additional funds into a long-term initiative?” and “Is it addressing needs identified in previous phases?” Climate Investor 2 is a blended finance facility targeting climate-resilient infrastructure in the water sector in emerging markets and was launched as a follow-up to Climate Investor 1, with the same partners involved, including the same fund manager.

On the other end of the scale, there are three projects that score a ‘5’ for transformative potential, which is the lowest score awarded in this evaluation. These projects are very diverse in their sectoral focus, including energy (access and efficiency) and transport; banking and financial services; and a multisectoral project, and in their total funding size from USD 500 million to USD 10.5 million. Two projects have a global focus and one is focussed on Latin America and the Caribbean.

Reflecting the overall trends of the projects analysed, all three projects have a catalytic investment rationale and two projects are in cooperation with a multilateral bank. Two of the projects are funds, which may contribute to their low score as ex-ante information for activities funded through funds is often limited.

All three projects score ‘Partially’ for Systemic Change and Scale. There is one project that scores ‘yes’ for speed, which is the EcoMicro 2.0 project, which aims to provide green microfinance in Honduras, Bolivia, and

Nicaragua. The project builds on the experiences and needs identified in the first phase of EcoMicro and aims to make access to finance more streamlined by mainstreaming green microfinance. At the same time, the project scores “no” for Relevance on the local/regional scale, as it does not target areas identified in the NDCs for Bolivia, Nicaragua, and Honduras.<sup>17</sup>

One project scores ‘No’ for additionality’, the Emerging Market Climate Action Fund (EMCAF) which is a blended finance fund that aims to catalyse both mitigation and adaptation projects in newly developing markets. There is no mention of additionality in the data available to the team, the project does not engage in de-risking and the intended project activities do not seem substantially innovative and experimental. However, as noted above, the nature of the project as a fund may have contributed to limited information about projects available ex-ante.

## **3.4 Conclusions per criteria**

### **3.4.1 Scale**

For this evaluation, the scale of investments refers to whether investments are enabling faster action that is required to meet the goals of the Paris Agreement. The criteria considered when evaluating the scale of NDF investments include the potential for leveraging additional finance (e.g., mentions of how much private finance is raised for every unit of public finance); the potential for catalysing and unlocking private finance and whether the investment intends to unlock innovation through e.g., financing novel solutions or business models. To reflect the core role that action at scale plays for transformative potential, projects that score a ‘yes’ for Scale, as well as for Relevance, receive an additional two points, which is the only way to get into the ‘very high’ transformative potential category. Only five projects scored ‘yes’ for both Relevance and Scale.

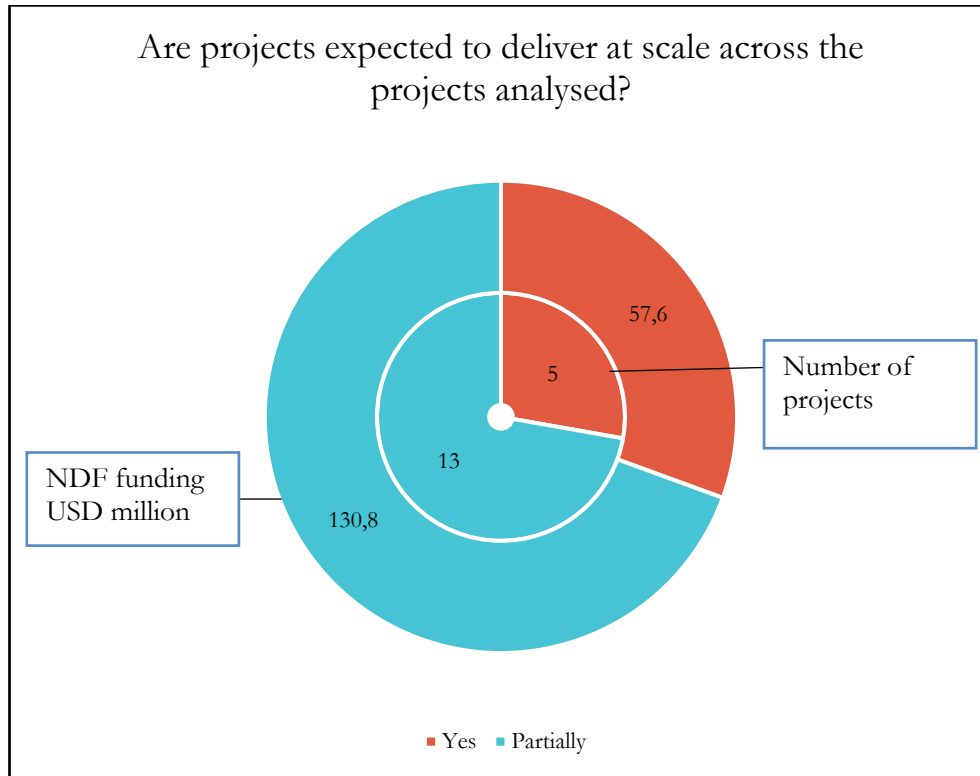
Across the portfolio, 5 projects score “yes” for Scale, representing 28% of the portfolio numerically and 31% of the funding of the portfolio analysed. 13 projects score “partially” for Scale, representing 72%

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<sup>17</sup> It should be noted that details on the relevance of projects for sectoral, national and regional priorities were not always provided in the project documentation used to conduct this ex-ante evaluation.

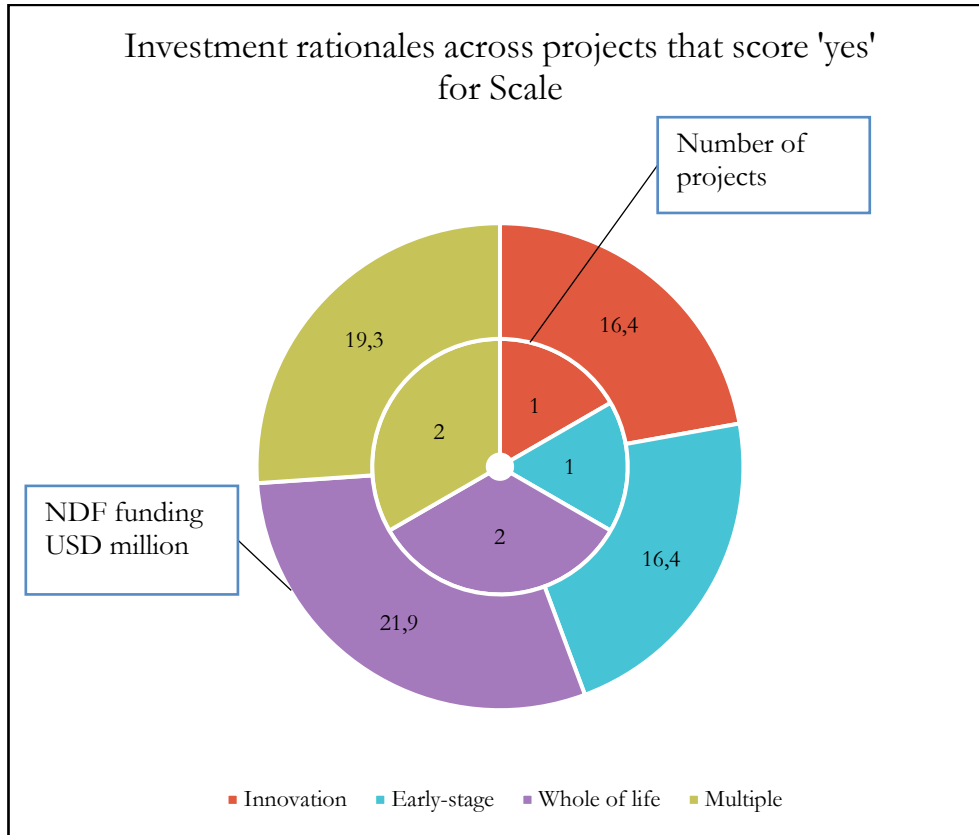
numerically and 69% of the funding of the portfolio analysed (see Figure 16).

**Figure 16: Proportion of NDF projects analysed scoring “yes” and “Partially” for Scale**



Of the projects that score “yes” for Scale, all are funds and, as shown in Figure 17 in terms of investment rationale, they include whole-of-life financing (2), innovation (1) and catalytic (1). As above, if projects have more than one investment rationale they are classed as ‘multiple’ which in this case applies to two projects. Investment rationales for projects tagged as ‘multiple’ include de-risking, innovation, catalytic, and project preparation.

**Figure 17: Distribution of investment rationales for projects scoring “yes” for Scale**



Of the projects scoring “partially” for Scale, the scoring across various criteria suggests that there is often a lack of information available in the documents provided to make the assessment, with most projects scoring “unclear” for one or more criteria which would then result in an overall score of “partially”.

In terms of the type of mitigation, of the five projects that score “yes” for Scale, three aim primarily at direct mitigation and two primarily aim at indirect mitigation. However, three of the six projects provide capacity building, technical assistance or institutional support more typically associated with indirect mitigation projects. Four of the projects scoring “yes” for Scale score either “high” or “very high” for overall transformative potential which is unsurprising given that projects need to score “yes” for Scale (as well as Relevance) to qualify for the additional two points.

In sum, five projects score “yes” for Scale, accounting for 31% of funding for projects analysed. This means that the share of funding allocated to projects scoring well for Scale is slightly higher than the numerical proportion they account for (28%). From the data available for these

projects, we find that projects with strong potential for scale have whole-of-life funding as well as investment rationales related to catalytic financing and de-risking, and tend to provide capacity building, technical assistance or institutional support.

### **3.4.2 Speed**

For this evaluation, the speed of investments relates to the ability to deliver investments in relevant (clean, renewable, and sustainable) solutions rapidly and the potential to streamline climate investment processes to deliver finance more quickly to where it is needed (CIF, 2023). We look at whether the activities and outcomes promised under NDF investments would manifest by 2030, and whether they have the potential to make the process of accessing additional finance more streamlined, e.g., by removing red tape or providing capacity-building/institutional support. In addition, when evaluating Speed, our evaluation framework considers the timing of the investment by looking at whether the investment is providing additional funds into a long-term initiative and whether it addresses needs identified in previous phases.

Across the portfolio, 7 projects score “yes” for Speed, representing 39% of the projects analysed numerically, while 11 projects (61%) score “partial” (see Figure 18 below). If we consider the value of investments in the projects analysed, projects scoring “yes” for speed account for 29% of funding and those scoring “partially” for 71%. Thus while projects scoring “yes” for speed account for 39% of projects numerically, they account for a smaller portion of funding for projects at 29%. This indicates comparatively smaller funding values for these projects.

**Figure 18: Speediness of projects analysed**

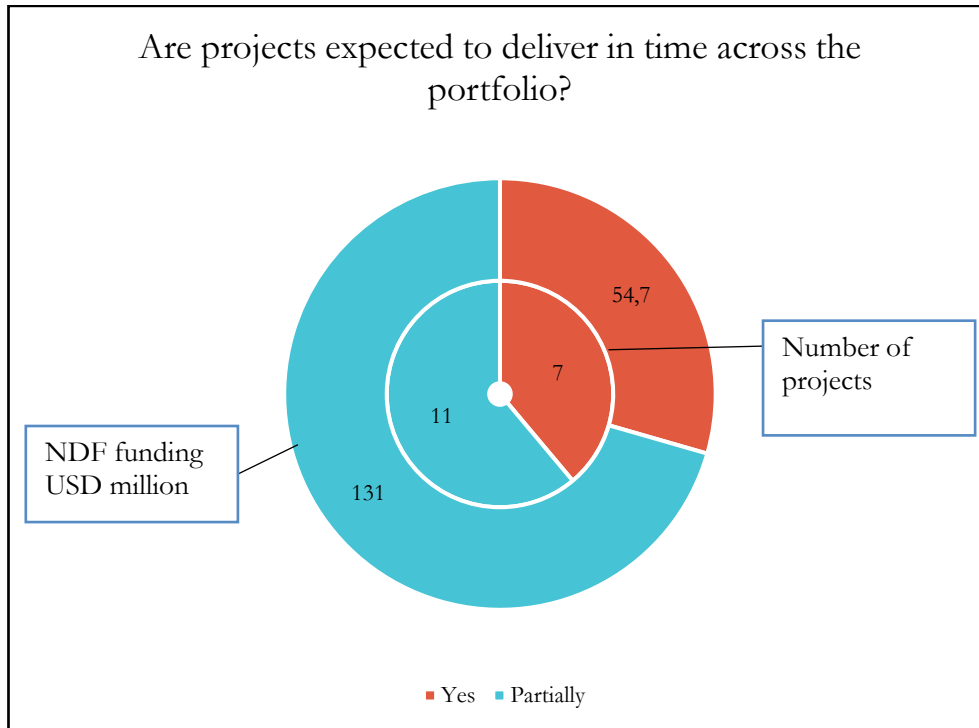
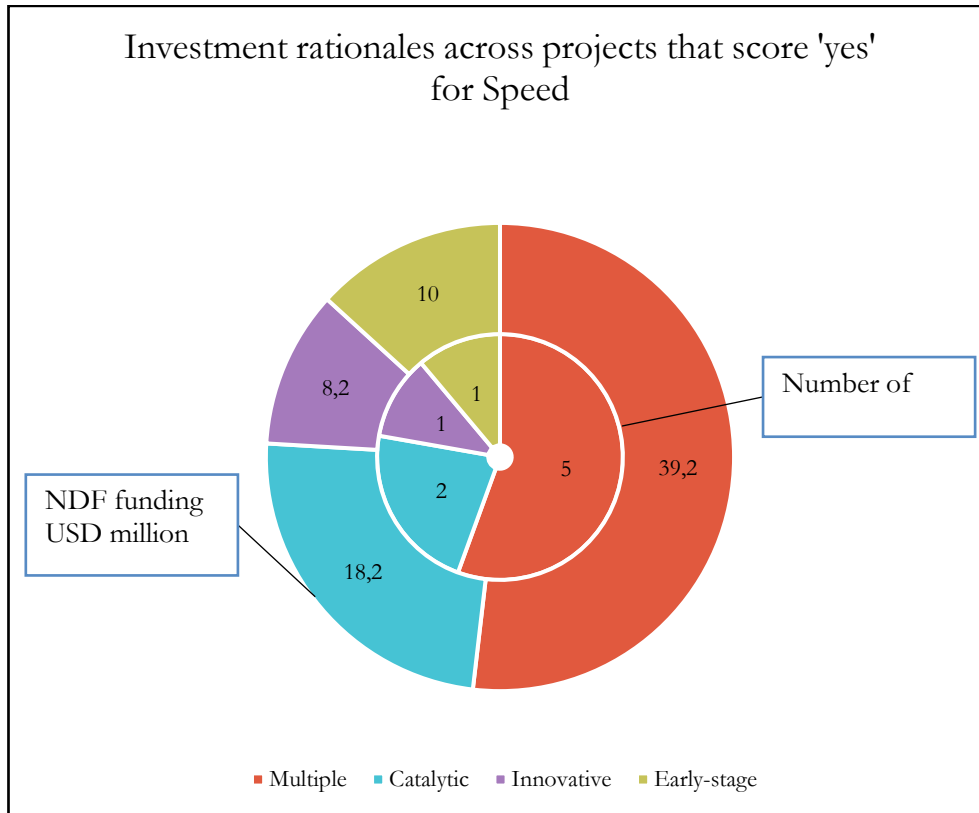


Figure 19 presents the distribution of projects scoring ‘yes’ for Speed across different investment rationales. As mentioned above, projects may have more than one investment rationale but if they have more than two, they are categorised as ‘Multiple’. In this case, ‘Multiple’ is the most common investment rationale (five projects) accounting for 542% of funding for projects scoring “yes” for Speed. These include catalytic and de-risking in four of the five cases, as well as project preparation and early-stage financing in three projects. This aligns with the trend for projects with two or fewer investment rationales, where two projects have a catalytic investment rationale accounting for 24% of funding for projects that score “yes” for Speed. Finally, one project has “innovation” and one has “early-stage financing” as the investment rationale, which account for 11% and 13% of funding for projects that score “yes” for Speed respectively.

A key assessment criterion for Speed is the potential to streamline the process of accessing finance through support for project preparation, - a common feature of de-risking, project preparation and catalytic financing mechanisms -so it makes sense that projects scoring well on Speed would apply these investment rationales and often do so in combination with each other.



**Figure 19: Investment rationales across projects analysed**



In terms of mitigation potential, four projects scoring yes for Speed have a primary focus on indirect mitigation, accounting for 52% of funding for projects that score ‘yes’ for Speed. However, all seven projects that score ‘yes’ for Speed provide an indirect mitigation outcome. Of the 11 projects scoring “partially” for speed on the other hand, the majority (8 projects) had a primary focus on direct mitigation and only two of those provide an additional indirect mitigation outcome. This trend makes sense if we consider the criteria for Speed: Projects with indirect mitigation potential included activities such as capacity development, institutional strengthening, and technical assistance to SMEs and financial institutions, all of which are important for streamlining access to finance, required for rapid implementation.

In terms of partners, of the seven projects that score a “yes” for Speed, four are implemented in partnership with multilateral banks, and two are in partnerships that involve private fund managers. In terms of the value of projects that score “yes” for Speed, 56% is allocated to projects in cooperation with multilateral banks and 33% to projects in cooperation with private fund managers. Finally, four of the seven projects that score a “yes” for Speed end up with a high score for overall transformative potential, while the other three end up with a low overall score. For the

11 projects that score “partially” the most common criteria to score a “no” was whether the investment is providing additional funds into a long-term initiative or addresses needs identified in previous phases.

In sum, projects scoring yes for Speed account for 39% of the portfolio analysed numerically and 29% of the funding. The investment rationales for these projects include de-risking, catalysing additional finance, project preparation and supporting innovation. From the data we have available, we find that the projects with an indirect mitigation potential, that is, those that prioritize capacity building and technical assistance, tend to score “yes” for Speed.

### **3.4.3 Relevance**

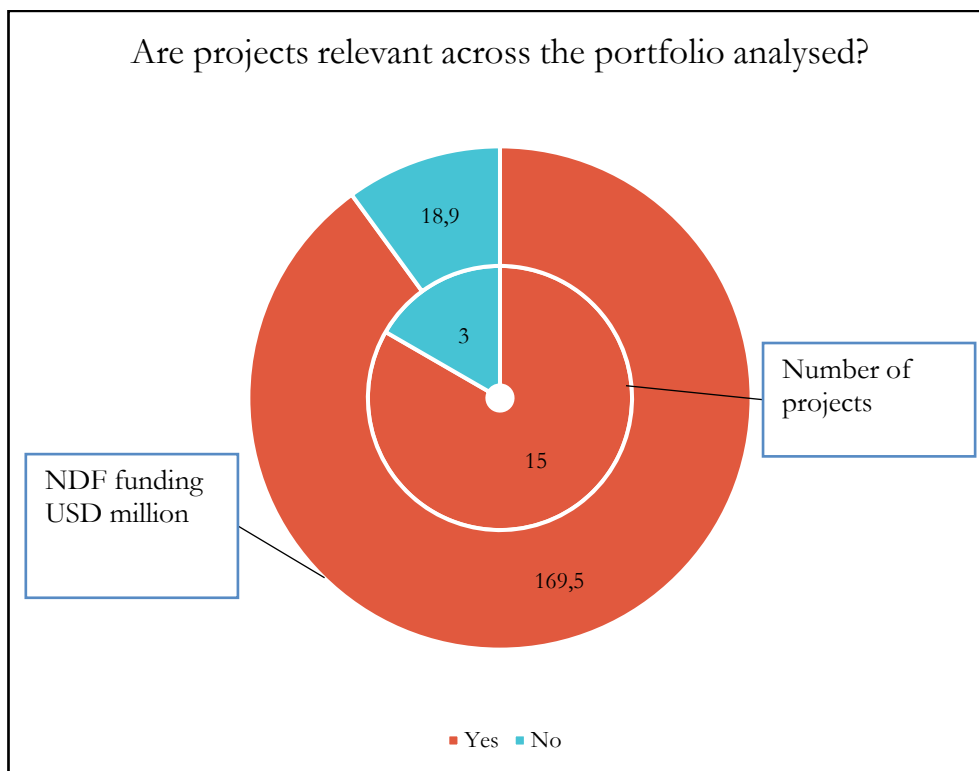
Investments are considered relevant if they are aligned with national needs as identified through NDCs (if the project was on a national scale or only included a couple of countries) or sectors of high importance identified in the Paris Agreement (if the project was on a global scale). Evidence for Relevance includes explicit mentions of alignment with NDCs or sectors identified in the Paris Agreement, and cross-checking if sectors of projects match sectors for NDCs (especially conditional pledges) and the areas identified in the Paris Agreement.

Compared to other criteria, Relevance is a more binary category - projects are relevant if they address specific sectors and non-relevant if not, such that partially addressing a relevant sector is not considered an option. This links to the critical importance of Relevance for transformative potential, where it is difficult to consider projects transformative for climate mitigation if they do not fully target relevant sectors.

To further reflect this, projects that score a ‘yes’ for Relevance, as well as for Scale, receive an additional two points, which is the only way to get into the ‘very high’ transformative potential category. Only five projects score ‘yes’ for both Relevance and Scale.

Overall, numerically 83% of projects are assessed to be relevant while only three projects score a ‘no’ for Relevance (see Figure 20 below). This is much higher than for any other criterion, and more than twice as many projects as for the closest other criterion (eight projects scoring ‘yes’ for Additionality). The picture looks even more stark when considering the share of funding for these projects in the portfolio analysed, with projects scoring ‘Yes’ for Relevance accounting for 90%.

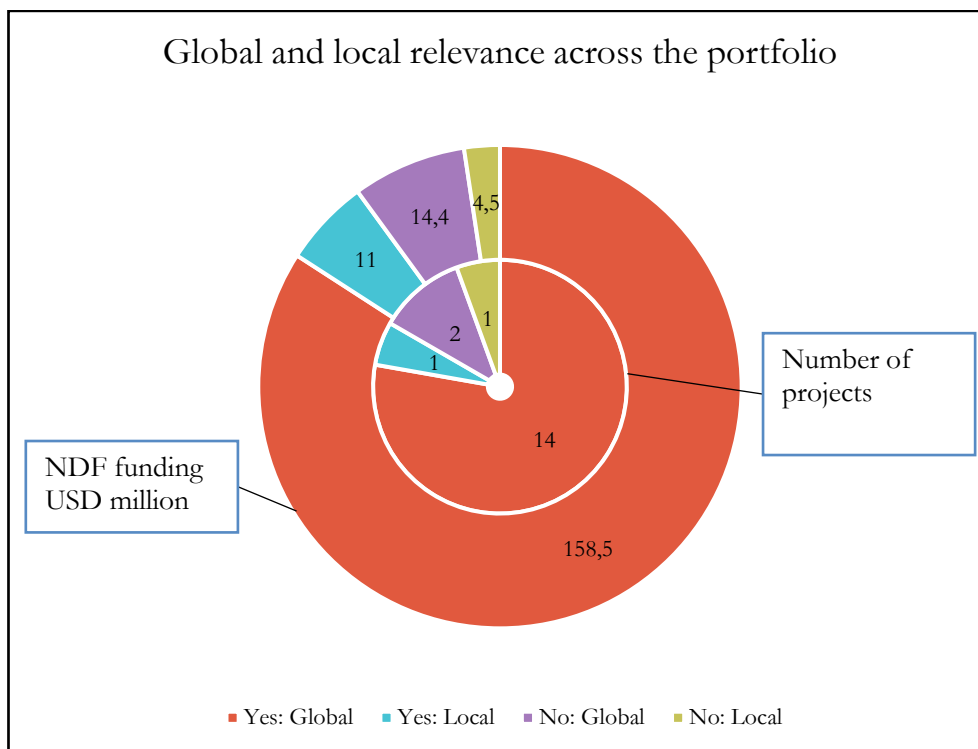
**Figure 20: Proportion of relevant projects across projects analysed**



Projects scoring ‘yes’ for Relevance across the projects analysed are spread across different sectors, investment rationales, geographical locations, and funding partners. There are only two projects where relevance is assessed on a ‘local’ scale, one of which scores ‘no’ for Relevance and one with scores ‘Yes’ (See figure 23 below).. In terms of the share of funding allocated to non-relevant projects, non-relevant projects at the global level account for 8% of financing to projects at the global level compared to 29% for projects at the national/local level.

This suggests that local-level projects are overall less likely to be relevant than projects on a global scale in the projects analysed, though the number of projects on the local scale is also much smaller. . As only projects focussed on up to three countries were evaluated for Relevance using their NDCs, while any global-level projects were evaluated for Relevance in terms of alignment with sectors outlined in the Paris Agreement, this difference in scoring may further be linked to this difference in method. Given that the NDCs are usually more specific and detailed than the areas identified in the Paris Agreement, it may have been more difficult for national-level projects to score a ‘yes’ for Relevance.

**Figure 21: Global and local relevance of the projects analysed**



Overall, projects that perform well on Relevance are largely concentrated in the energy sector, specifically renewable energy, and energy efficiency, or have a multi-sectoral approach. As many of these projects are focused on a range of different countries, most commonly in Africa, they often include a selection procedure for investment countries based on NDCs to maximise Relevance, as is the case for Climate Investor 1 and Serengeti Energy. Projects that score high for Relevance usually also score high for other criteria, including all overall ‘high’ and ‘very high’ scores, though some projects are relevant and are in the ‘low’ range, scoring five or six points overall.

More interestingly given the proportions, projects that score ‘no’ for Relevance were all expected to be catalytic and did not focus on providing project preparation or early-stage financing. The three projects scoring no for Relevance are scattered across a range of different sectors: infrastructure, banking and financial services, one project addressing multiple sectors including nutrition and food security, and ‘green economy’. Many of these sectors are very broad and less closely linked to climate change mitigation efforts, and none of them addressed NDCs for countries they are located in.

In sum, the projects evaluated perform well on Relevance, with the majority scoring ‘Yes’. Relevant projects are often focused on the energy

sector and operate in multiple countries, while non-relevant projects are scattered across different sectors and usually focus on one or two countries only.

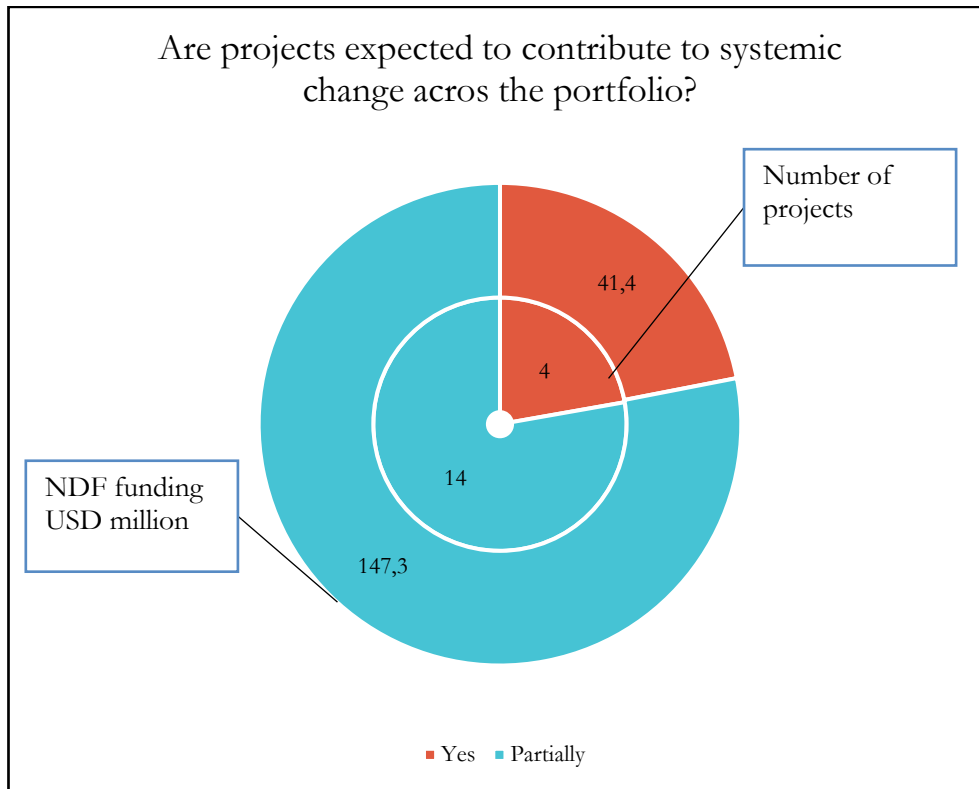
### **3.4.4 Systemic change**

For this evaluation ‘Systemic Change’ refers to whether projects consider different types of actors within a system in a coordinated, interconnected and inclusive manner, and whether they are providing new and innovative solutions. To assess this, we consider evidence on whether the project is considering the whole lifecycle of an investment and/or a sector; whether experimental, small, and/or decentralized solutions are supported alongside large-scale initiatives; whether different levels of governance (national, regional, local,) and relevant actors at these levels are identified/mentioned/addressed in the project documents; whether capacity-building, learning, and institutional support are included, and whether the project had considered the long-term sustainability of the funded interventions

We find that four projects in the portfolio scored a “yes” for Systemic Change, while 14 scored “partially” (see Figure 24). In terms of the value of investments in the portfolio analysed, 22% is allocated to projects that score ‘yes’ for Systemic Change and to those that 78% score “partially”.

All four projects scoring “yes” use grants as the main financial instrument. All four aim for direct mitigation and the sectors included are renewable energy; climate mitigation and clean technology for climate and agriculture.. Two of the projects, Climate Investor 1 and Climate Investor 2 represent the highest mitigation potential of the portfolio and the largest investments. In terms of investment rationale, two projects represent whole-of-life investments and two have a catalytic investment rationale.

**Figure 22: Proportion of projects analysed scoring “yes” and “Partially” for Systemic Change**



A closer look at the 14 projects that score “partially” for Systemic Change reveals that one project, Mirova Gigaton Investment Vehicle scores low, with “no” answers for several of the criteria used. This project is focused on providing financing for the implementation of projects only at the early stage, so scored “no” on whether the project is considering the whole lifecycle of an investment and/or a sector and “no” on whether capacity-building, learning, and institutional support are included.

In sum, four projects accounting for one fifth of the value of the projects analysed score “yes” for Systemic Change. The projects scoring “yes” all focus on direct mitigation and apply a “whole of life” financing rationale, or used catalytic financing.

### 3.4.5 Additionality

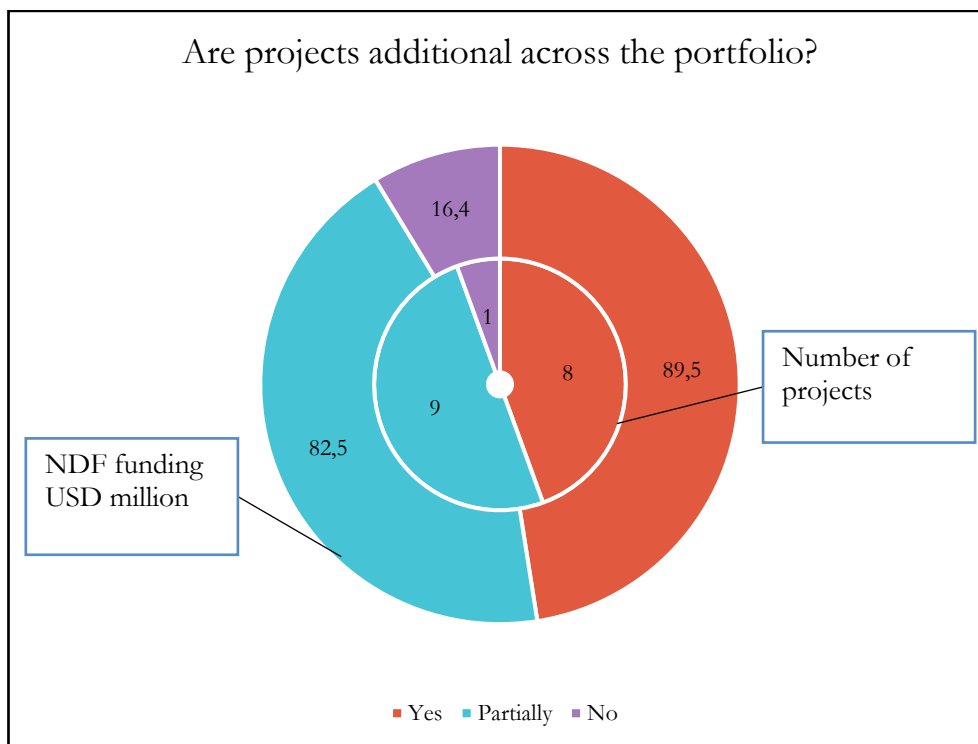
The additionality of investments relates to the question of whether the outcomes of a particular investment made by NDF would have come about without the investment in question. Concerns about additionality are relevant for assessing whether an investment was the best use of Swedish (taxpayer) funds.

In the context of this evaluation, we can think of Additionality in two ways: Financial additionality refers to providing financial resources that other actors could not or would not have been able to provide. This may for example be the case for projects that are high-risk or for projects that are not ‘bankable’ for the private sector, or where a financing gap has been identified. Outcome additionality refers to assessing whether the outcomes of a particular investment would otherwise not have come about. This may include projects that target conditional NDCs if projects are on a national scale as well as highly innovative and experimental projects. Thus, for this evaluation, evidence for the Additionality of an investment includes mentions of an additionality assessment/consideration, as well as mentions of risk-reduction, filling a financing gap, and targeting conditional NDCs.

Generally, Additionality is one of the more difficult criteria to assess, particularly when there are data limitations, as relevant evidence is usually implicit and more likely to be included alongside more in-depth project proposals, descriptions, and planning. As noted throughout the report, this is an ex-ante evaluation, meaning that additionality of projects is based on the information provided in project documentation about what the project intended to implement, rather than an evaluation of what was actually achieved.

Across the portfolio, eight projects are assessed to be additional (See Figure 25 below). Most of the projects are partially additional (nine projects) and one project is assessed to be not additional. Overall, the projects in the portfolio score reasonably high for Additionality, where projects that are fully or partially additional make up over 94% of all projects numerically. This is particularly important given that data gaps regarding Additionality were common and ‘unknowns’ frequently lead to ‘partial’ assessments for Additionality. If we look at the share of funding of the portfolio analysed, the picture looks similar with 47% of funding allocated to projects that score ‘yes’ for Additionality (compared to 44% numerically) and 44% to those scoring “partially” (compared to 50% numerically). Projects scoring “no” for Additionality account for 9% of funding in the portfolio analysed, compared to 5% of the portfolio in terms of number of projects. Thus, for both projects scoring “yes” and “no” for Additionality, the share of funding they account for is slightly larger than their share of projects numerically, indicating comparatively higher average funding values for these projects.

**Figure 23: Proportion of additional projects**



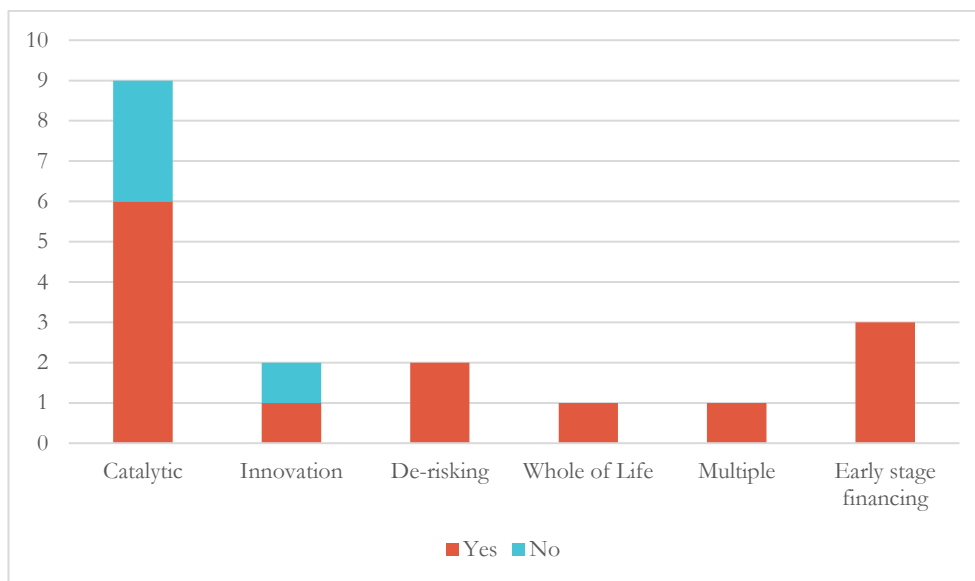
Comparing across sectors, most projects that are additional are focused on energy renewable energy (4 projects) which also account for the majority of funding for projects scoring “yes” for additionality (53%). The rest of the projects are spread across infrastructure (2 projects), climate technology (1 project), and one multisectoral project (see Figure 26 below)<sup>18</sup>. The one project found not to be additional is focused on energy efficiency and transport.

It is interesting to note that projects in the transport and energy sector score both yes and no for Additionality. However, their share varies quite distinctly: Projects that are additional and in the energy sector account for 50% of additional projects numerically and 53% of funding allocated to additional projects. For non-additional projects in the energy sector, those figures are 25% of projects numerically and 41% of funding allocated to non-additional projects overall.

<sup>18</sup> As above, projects may have more than one investment rationale.



**Figure 24: Distribution of investment rationales across Additionality scores**



In terms of partners, the project scoring ‘no’ for Additionality is done in cooperation with a multilateral bank. Meanwhile, additional projects are mainly in cooperation with the private sector (4 projects) accounting for 38% of funding for additional projects. Two projects were in cooperation with Government agencies and three included multilateral banks.

Projects that scored high on Additionality usually had an additionality assessment available. Further, projects that do well on Additionality have a focus on de-risking investments and early-stage financing as investment rationales (see Figure 25 above). This reflects the link between Additionality and providing financial resources where other actors can/will not, i.e., in high-risk situations and at early stages of development. Private investment is more likely to happen when projects have lower risk, meaning that de-risking can mobilise capital that would have otherwise not been invested, i.e. that is additional.

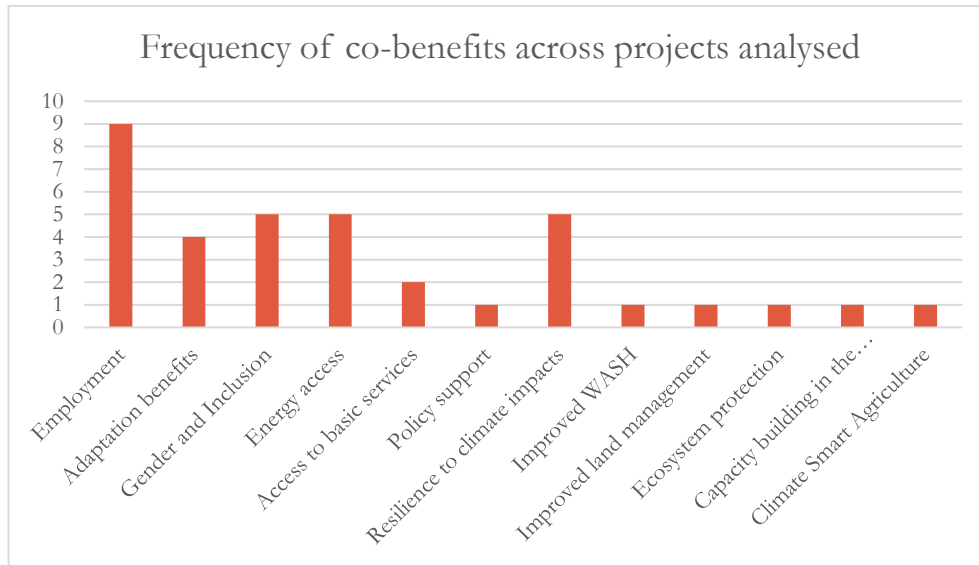
In sum, the majority of projects analysed are either partially or fully additional, with only one project scoring “no” for Additionality. Projects scoring “yes” for Additionality accounted for 47% of the funding of projects analysed and those scoring “partial” for 44%. Projects scoring well for Additionality often have an additionality assessment available as well as providing de-risking and early-stage financing to make investing more attractive to private sector actors. It should be acknowledged that mobilizing true commercial capital is very difficult for the most demanding markets in sub-Saharan Africa so it is to be expected that funders partner with like-minded partners when designing their programmes .

### 3.5 Co-benefits

Co-benefits in the context of climate mitigation projects refer to additional positive outcomes or advantages beyond the primary goal of reducing greenhouse gas emissions. Many initiatives that reduce GHG emissions have benefits that contribute to sustainable development and enhance overall health and well-being (UNECE, 2016). Co-benefits can manifest in social, economic, and environmental dimensions and the presence of co-benefits with a near-term local impact can facilitate cooperation and encourage action on climate change mitigation (UNECE, 2016). Commonly reported co-benefits of climate mitigation projects include improved air quality, biodiversity conservation and enhanced energy access (Karlsson et al., 2020). In addition, there are macro effects associated with increased climate-related investments in growth and employment (Cohen et al., 2021)

Our evaluation finds that 13 different co-benefits are mentioned across 17 projects (see Figure 27). Employment generation is the most cited co-benefit across the portfolio, mentioned by nine projects. The next most frequently cited co-benefits are enhanced resilience to climate change and gender and inclusion, mentioned by five projects respectively. Regarding climate resilience, reference is made both generally to enhanced community resilience to the impacts of climate change, but also climate resilient infrastructure and the provision of access to climate resilience services. Regarding gender and inclusion reference is made to gender empowerment through access to finance for female entrepreneurs, gender mainstreaming and prioritizing interventions that focus on marginalized and/or disadvantaged people, such as low-income populations, women and girls, LGBTQ+, indigenous peoples, afro-descendants and people with disabilities. Although many of the co-benefits mentioned are closely related to principles of justice and equality (e.g., gender empowerment and prioritizing marginalized groups), projects did not frame these co-benefits in terms of just transitions.

**Figure 25: Frequency of co-benefits mentioned across projects analysed**



Three projects with a sectoral focus on renewable energy mention energy access as a co-benefit which is somewhat surprising as one would assume access to energy to be a development outcome of these projects. The number of projects in the portfolio with an energy focus. Also surprising is how few projects mention air quality as a co-benefit given the focus in the portfolio on renewable energy and on urban settings (e.g., decarbonizing transport, urban circularity, traffic decongestion, etc.). There are few mentions of improved land management, climate-smart agriculture and protected ecosystems.

### 3.6 Transparency

This section briefly discusses the transparency – here taken to mean the degree to which information about projects is made accessible in an open manner - of NDF’s climate mitigation portfolio. Within the CIF framework, transparency is captured under a criterion called ‘adaptive sustainability’ and highlights the link between information sharing, transparency, and disclosure, and the ability to adapt and build on existing projects (Climate Investment Fund, 2021). This was not systematically assessed for all projects as it is more indirectly related to transformative potential, but reflections on transparency practices were collected during the analysis. Some of these are highlighted below.

Overall, the level of transparency for the projects analysed was low with limited information available online<sup>19</sup>. Project proposals are not available for some projects, making it difficult to establish key facts about the project, which is particularly concerning for projects involving very large sums of funding and funds of funds where it is very difficult to trace where money goes. Several projects are on the verge of not having a bare minimum of information needed for the analysis, for example, the BUILD Fund, the Africa Go Green Fund, and the Africa Circular Economy Facility. This limited transparency constrains the assessment of links between proposed activities and mitigation goals. However, this is partially due to this evaluation being ex-ante: For investment funds, it is common practice for information about individual investments to not be available until project investments commence in the implementation phase.

Specific capacity is needed within projects to track investment flows, collect data, and align with new research (Climate Investment Fund, 2021). This is considered in a couple of projects that focus on project preparation such as the NDC Pipeline Accelerator I and II and the Urban and Municipal Development Fund.

### **3.7 Conclusions**

The assessment of the selected NDF projects is part of a larger evaluation that aims to determine whether Swedish development finance for climate mitigation is financing efforts that are likely to contribute to emission reductions that are large enough and can be realised quickly enough to significantly contribute to the Paris Agreement's 1,5 C temperature objective. Specifically, the evaluation aims to address the following questions:

1. Scale: Does Swedish development finance go to activities that have the potential to contribute to large-scale emission reductions/mitigation in developing countries?<sup>20</sup>
2. Time: Does Swedish development finance go to activities whose large-scale contributions can be realised in time, in line with the Paris Agreement?

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<sup>19</sup> Where data were missing, the project team, supported by EBA searched extensively online for supplementary data sources. EBA approached NDF in October 2023 requesting additional information but were informed that it was not possible to share the requested information.

<sup>20</sup> This includes both emissions reductions and carbon dioxide removals.

This is an ex-ante evaluation, meaning that NDF projects are assessed based on the information provided in project documentation about what the project intended to implement, rather than an evaluation of what was actually achieved. In line with this, there are limits to what kind of data is available ex-ante, as more detailed projections and targets often only become available in the inception phase. The team was provided with an initial list of 26 climate change mitigation projects from EBA, representing 54% of the total portfolio of 48 projects. After screening the list to assess the relevance of projects to the scope of the analysis, the list was reduced to 18 mitigation projects, representing 38% of the overall NDF portfolio. It should be noted that NDF exclusively co-finances projects with other actors and NDF's contribution to the total value of climate mitigation projects in the studied portfolio is relatively small, representing approximately 5% of the total funding value.

The team applied an evaluation methodology based on the CIF transformative principles, adapted to the needs of this project. Each project is evaluated against five key principles; Speed, Scale, Systematic Change, Additionality and Relevance (see Appendix 3 for more details on the methodology). Criteria were established to allow an assessment of each key principle and projects are assigned an overall score based on their scores across all five principles. The team also assesses the potential for co-benefits across the portfolio and provides reflections about the level of transparency observed in the project documentation provided.

### **3.7.1 The transformative potential of the projects analysed**

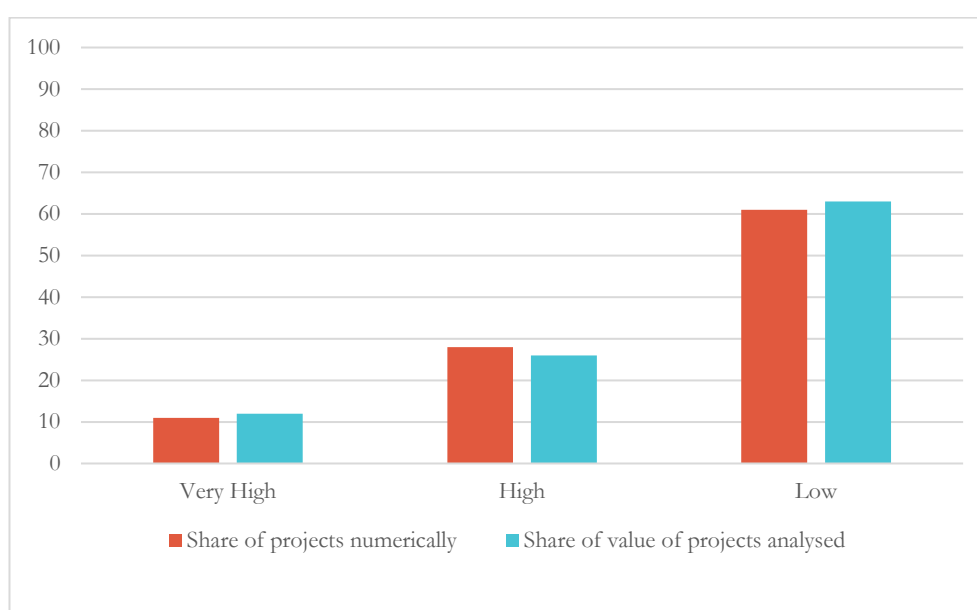
Table 4 below summarizes the overall transformative potential and scoring on individual criteria for the portfolio.

At a high level, the portfolio looks promising - it is largely located in Sub-Saharan Africa and focused on the energy sector which suggests high relevance and transformative potential. However, as we break down the portfolio and examine individual criteria, we find that the transformative potential is lower than expected. Particularly for Systemic Change and Speed, there are very few projects that meet the criteria for contributing to transformative potential.

Based on the overall transformative potential scores for each of the 18 projects analysed, we find that two projects score very high, five score high and 11 score low. Figure 28 below shows how these figures translate into

shares of funding in the portfolio analysed and the total NDF portfolio. It is interesting to note that the share of projects scoring low for transformative potential is higher for the value of projects analysed than for the number of projects analysed. This means that projects scoring low account for a slightly higher share of funding (64%) than they account for numerically (62%) for the projects analysed, indicating that projects that score low for transformative potential might have comparatively higher budgets. For all other levels of transformative potential, the share of funding allocated to projects is smaller or proportional to the share of projects they account for numerically.

**Figure 26: Transformative potential across projects analysed**



The evaluation finds that five projects accounting for 24% of the funding in the portfolio analysed have strong potential to contribute to emission reductions at scale in developing countries. Seven projects accounting for 33% of the funding of the portfolio analysed have the potential to be realized in line with the time frame of the Paris Agreement.

Looking at the projects that score well for both Speed and Scale (two central criteria for this evaluation), from our analysis it appears that only two projects score well on both, which represent around 10% of the projects evaluated numerically and a slightly lower share of the funding at 9%.

Overall, the evaluation shows that one-third of projects analysed, which account for 32% of funding, have high or very high potential for transformative change in line with the commitments of the Paris

Agreement. **Scale:** five projects, accounting for 24% of funding in the portfolio analysed score well (“yes”) for Scale

- **Speed:** Seven projects, accounting for 33% of funding in the portfolio analysed score well (“yes”) for Speed
- **Systemic change:** Four projects, accounting for 19% of funding in the portfolio analysed score well (“yes”) for Systemic Change
- **Relevance:** 14 projects, accounting for 66% of funding in the portfolio analysed score well (“yes”) for Relevance
- **Additionality:** Eight projects, accounting for 38% of funding in the portfolio analysed score well (“yes”) for Additionality

Given the importance of Scale and Speed as transformative principles, and the fact that most projects fall into the low category, our evaluation suggests that there is room for improvement if NDF climate mitigation investments are to align with the Paris Agreement. As transformations require holistic change across levels, criteria, and areas, projects need to be scoring well across all criteria to be considered transformational, which too few are right now.

While this assessment highlights a couple of projects that score very highly for transformative potential, these are not to be understood as blueprints for all climate finance projects but are those projects that score well in the context of this specific ex-ante evaluation. In practice, there might be potential tensions between the different criteria, such as aiming for both small-scale and experimental (Systemic Change) and larger projects (Scale), and different kinds of projects are likely to be needed across different contexts. Given the diversity in terms of project size, scope and timeframe, it may not be reasonable to expect all projects to meet all criteria for transformative potential, but at the portfolio level, some reflection may be needed on the optimal balance across the criteria.

Finally, it should be acknowledged that NDF often operates in difficult contexts, such as in sub-Saharan Africa, where mobilising finance for climate and development projects is inherently challenging. The findings from this evaluation are intended to be useful for NDF, its funders and other organizations working with similar tasks to build on the work they are doing by strengthening the transformative potential of their portfolio.

**Table 4: Transformative potential across the projects analysed**

Project Name	Scale	Speed	Systemic change	Relevance	Additionality	Overall transformation potential
Climate Investor 1	High	Low/Partially	High	High	High	High
Emerging Market Climate Action Fund (EMCAF)	Low/Partially	Low/Partially	Low/Partially	High	Very low	Low/Partially
Serengeti energy	Low/Partially	High	High	High	High	High
Energy and Environment Partnership Trust Fund	Low/Partially	Low/Partially	Low/Partially	High	High	High
ADB Ventures	Low/Partially	Low/Partially	High	High	High	High
EcoMicro 2.0	Low/Partially	High	Low/Partially	Very low	Low/Partially	Low/Partially
NDC Pipeline Accelerator	Low/Partially	Low/Partially	Low/Partially	High	Low/Partially	Low/Partially
NDC Pipeline Accelerator II	High	High	Low/Partially	High	Low/Partially	High
Africa Circular Economy Facility	Low/Partially	Low/Partially	Low/Partially	High	Low/Partially	Low/Partially
Urban & Municipal Development Fund	Low/Partially	High	Low/Partially	Very low	High	Low/Partially
AGF Green Guarantee Facility	High	High	Low/Partially	High	Low/Partially	High
Mirova Gigaton Investment Vehicle	High	Low/Partially	Low/Partially	High	Low/Partially	High
Climate Investor 2 (Construction Equity Fund 2)	High	Low/Partially	High	High	High	High
Facility for Energy Inclusion Off-Grid Energy Access Fund (FEI OGEF)	Low/Partially	Low/Partially	Low/Partially	High	Low/Partially	Low/Partially
BUILD Fund (UNCDF/Bamboo capital)	Low/Partially	Low/Partially	Low/Partially	Very low	High	Low/Partially
Africa Go Green Fund (AGGF)	Low/Partially	Low/Partially	Low/Partially	High	Low/Partially	Low/Partially
Sustainable Energy Fund for Africa (SEFA)	Low/Partially	High	Low/Partially	High	Low/Partially	High
Energy Entrepreneurship Growth Fund (EEGF)	Low/Partially	High	Low/Partially	High	High	High

Key: Level of transformative potential and scoring for individual criteria

Very low	Low/Partially	High	Very High
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### **3.7.2 Key features of transformative projects**

From our evaluation of the portfolio across the transformative principles it is possible to identify some features of projects with strong transformative potential. Unsurprisingly, the type of funding instrument applied appears to be of central importance for the transformative potential of a project. Projects that scored well for Speed and Additionality tended to apply instruments for de-risking, catalysing additional finance, project preparation and supporting innovation. The two highest-scoring projects (across all transformative principles) applied a whole-of-life financing approach. Projects scoring well for Systemic Change tend to have long-time horizons and focus on direct mitigation. Projects that scored well for Relevance are often focused on the energy sector and operate in multiple countries.

### **3.7.3 Co-benefits**

Co-benefits of climate mitigation projects are critically important for advancing climate mitigation, for example, through facilitating action and wider cooperation on climate change. NDF operates at the nexus between climate and development and aims to create co-benefits and synergies with other SDGs, taking a holistic approach (Nordic Development Fund 2019). From our evaluation, the NDF portfolio appears to be strong in terms of the range of co-benefits covered, although some key co-benefits that one might have expected given the focus of the projects, such as air quality and biodiversity protection, are missing. Some projects provided little information about co-benefits which seems like a missed opportunity for communicating and learning about the development impacts of NDF's climate finance investments. This point is linked to the overall lack of transparency in the publicly available documentation (see section below on Transparency).

## **3.8 Transparency**

The evaluation suggests that the overall transparency of the projects analysed could be improved. The data required to conduct the analysis were missing or difficult to find for some of the projects analysed. This is not just an issue for accountability but also limits learning from and building on existing projects to build better projects effectively and

efficiently. Across the projects analysed, only a couple of projects that focus on project preparation included activities related to the capacity to collect and report on data which is crucial to enabling the transparency of investments. Transparency is particularly important for establishing the Additionality of projects as data related to additionality is often implicit and more likely to be included alongside more in-depth project proposals, descriptions, and planning. Openly and easily accessible data related to projects is thus crucial to be able to trace where additional investments are being mobilized and additional outcomes achieved. It is however important to note that some data is not available ex-ante, especially for investment funds, where projections and targets often only become available in the inception phase.

### **3.9 Recommendations**

- The two projects that score highest for transformative potential are both very large, long-term projects where one of the projects builds on the success of another. Further work is needed to understand how the high-scoring projects are designed and operated, and if they are in practice meeting the criteria that they seem to satisfy based on the documentation that was provided. Methodologically, this would require going beyond a desk-based ex-ante study and would involve interviewing key actors within the project including NDF project managers, partners and funding recipients.
- NDF does not have a climate mitigation target for their project portfolio as it does for climate adaptation. We acknowledge that the adaptation target was implemented due to the mitigation-heavy nature of the portfolio at the time and that NDF has had an implicit mitigation focus through their climate mandate. To align with the Paris Agreement and its mandate as a development funder, the Nordic countries that set NDF's operational direction and finance its budget should consider setting an explicit climate mitigation target for NDF that goes beyond quantitative GHG reductions. The CIF Principles for Transformational Climate Finance could help to define objectives for a future NDF climate mitigation portfolio in alignment with their mandate as a development funder.
- To improve transparency, data about projects should be published in additional databases, such as the Swedish OpenAid database, in line with OECD-DAC reporting standards. This work could build on the recent Public information policy approved by NDF in June 2024.

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## Appendix 1: List of projects received from NDF

Continent	Country	Project no.	Project Name	Amount (EUR million)		Financing type
Africa	Regional (Africa)	C100	Urban & Municipal Development Fund	4.00	Public	Grant
Africa	Regional (Africa)	C103	Off-Grid Energy	6.00	Public	Equity
Africa	Regional (Africa)	C103	Off-Grid Energy	0.50	Public	Grant
Africa	Regional (Africa)	C104	Energy and Environment Partnership Trust Fund (EEP)	22.00	Public	Grant
Africa	Regional (Africa)	C69	Call for proposals for Preparation of Water and Climate Change Investment Programs and Projects	6.00	Public	Grant
Africa	Regional (Africa)	C88	African Guarantee Fund (AGF) Green Guarantee Fund (GGF)	15.00	Private	Equity
Africa	Regional (Africa)	C88	African Guarantee Fund (AGF) Green Guarantee Fund (GGF)	2.85	Private	Grant
Africa	Regional (Africa)	C99	Serengeti	17.00	Private	Equity
Africa	Regional (Africa)	C99	Serengeti	0.50	Private	Grant
Africa	Regional (Africa)	C127	Sustainable Energy Fund for Africa (SEFA)	10.00	Public	Grant
Africa	Regional (Africa)	C129	Africa Circular Economy Facility (ACEF)	2.00	Public	Grant
Africa	Regional (Africa)	C135	Africa Go Green Fund, AGGF	10.00	Private	Equity
Africa	Regional (Africa)	C138	Energy Entrepreneurship Growth Fund (EEGF)	8.50	Private	Equity
Africa	Regional (Africa)	C138	Energy Entrepreneurship Growth Fund (EEGF)	1.50	Private	Grant
Africa	Senegal	C11	Water and Sanitation Millennium Project - Cambéréne Climate Change Support	4.00	Public	Grant
Asia	Regional (Asia)	C90	Readiness Improvement for Sustainable Projects (RISP)	7.00	Public	Grant
Asia	Regional (Asia)	C123	ADB Ventures	10.00	Public	Returnable capital

Asia	Regional (Asia)	C141	ADB Ventures Fund	10.00	Public	Equity
Latin America	Regional (LAC)	C78	EcoMicro 2.0	4.10	Public	Grant
Latin America	Regional (LAC)	C98	NDC Pipeline Accelerator	10.00	Public	Grant
Latin America	Regional (LAC)	C149	NDC Pipeline Accelerator II	10.00	Public	Grant
Multiple Regions	Global	C96	Nordic Climate Facility 7		Public	Grant
Multiple Regions	Global	C122	Nordic Climate Facility 8		Public	Grant
Multiple Regions	Global	C130	Nordic Climate Facility 9		Public	Grant
Multiple Regions	Global	C111	Climate Investor One, Development Fund	5.00	Private	Reimbursable grant
Multiple Regions	Global	C132	Climate Investor Two, Development Fund	12.36	Private	Reimbursable grant
Multiple Regions	Global	C136	BUILD Impact Fund	9.00	Private	Equity
Multiple Regions	Global	C134	Emerging Market Climate Action Fund, EMCAF	15.00	Private	Equity
Multiple Regions	Global	C142	Gigaton Empowerment Fund	15.67	Private	Equity
Multiple Regions	Global		NCF admin 7-9	2.00	Public	Grant
Asia	Cambodia	C130	Smart DC Microgrids with Distributed Lithium Storage	0.40	Private	Grant
Africa	Ethiopia	C130	Digital solution for climate smart agricultural production	0.50	Private	Grant
Africa	Kenya	C130	MACSU - Matatus Conversion for Sustainable Urban environment	0.50	Private	Grant
Africa	Kenya	C130	Piloting, optimising and future-proofing high efficiency heat networks in Kenya	0.40	Private	Grant
Africa	Kenya	C130	Smart solar service model for humanitarian response	0.45	Private	Grant

Africa	Kenya	C130	From diesel to solar: Reducing emissions through PAYG at health clinics in Kenya	0.50	Private	Grant
Latin America	Nicaragua	C130	Impact at origin: catalyzing sustainable agriculture with smallholder farmers	0.40	Private	Grant
Africa	Tanzania	C130	Closing the Nutrient Loop on Sustainable Aquaculture in Tanzania	0.27	Private	Grant
Asia	Vietnam	C130	Coffee Vision	0.50	Private	Grant
Asia	Bangladesh	C122	Radically Reducing Energy Consumption and CO2-Emissions in Bangladesh	0.50	Private	Grant
Latin America	Bolivia	C122	Development, Adaptation, and Mitigation through Watershed Protection in Bolivia	0.39	Private	Grant
Asia	Cambodia	C122	KjuonGo, a digital revolution for sustainable woodfuels in Cambodia	0.50	Private	Grant
Africa	Kenya	C122	Solution for increasing farm system resilience and carbon sinks on sandy soils	0.45	Private	Grant
Asia	Nepal	C122	Biomass Pellet industry: a clean energy solution for Nepal	0.50	Private	Grant
Africa	Tanzania	C122	Green, Scalable, Affordable and Portable Power to off grid families in Tanzania	0.41	Private	Grant
Africa	Zambia	C122	Piloting Africa's first affordable PAYGO, real time data-enabled clean cookstove	0.48	Private	Grant
Asia	Bangladesh	C96	JutePP - the sustainable material for plastic products	0.25	Private	Grant
Africa	Kenya	C96	Greening Tea Factories in Kenya: Using Absolicon Solar Collectors in Tea Process	0.50	Private	Grant
Asia	Vietnam	C96	Improved business through seasonal forecasting for coffee in Vietnam	0.45	Private	Grant

Africa	Regional (Africa)	C103	Off-Grid Energy	6.00	Public	Equity
Africa	Regional (Africa)	C103	Off-Grid Energy	0.50	Public	Grant
Africa	Regional (Africa)	C99	Serengeti	17.00	Private	Equity
Africa	Regional (Africa)	C99	Serengeti	0.50	Private	Grant
Multiple Regions	Global	C111	Climate Investor One, Development Fund	5.00	Private	Reimbursable grant
Africa	Kenya	C130	MACSU - Matatus Conversion for Sustainable Urban environment	0.50	Private	Grant
Africa	Kenya	C130	Piloting, optimising and future-proofing high efficiency heat networks in Kenya	0.40	Private	Grant
Africa	Kenya	C130	From diesel to solar: Reducing emissions through PAYG at health clinics in Kenya	0.50	Private	Grant
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Africa	Zambia	C122	Piloting Africa's first affordable PAYGO, real time data-enabled clean cookstove	0.48	Private	Grant
Africa	Kenya	C96	Greening Tea Factories in Kenya: Using Absolicon Solar Collectors in Tea Process	0.50	Private	Grant



## Appendix 2. Table summarising portfolio and evaluation

(simplified overview)

Project information										Project Assessment						
Project Name	Recipient Country	Recipient Region	Start Year	End Date	Funds in USD million	Partner Organisation	Sector	Investment type	Mitigation figure (t CO2e/year)	Partner org.	Scale	Speed	Systemic change	Relevance	Additionality	Transformational potential
<b>Climate Investor 1</b>	Burundi, Cameroon, Indonesia, Uganda, Kenya, Malawi, Madagascar, Mongolia, Djibouti, Morocco, Nigeria	Asia, Africa	2019	2037	5	FMO, The Netherlands Development Finance Company, Climate Fund Managers	Renewable energy	Grant	1.2 million tons of CO2 avoided per year (over 18 years = 21,6 million tons)	Government agency, private sector	2	1	2	2	2	Very high
<b>Emerging Market Climate Action Fund (EMCAF)</b>	Africa, Latin America, Asia	Global	2021	2038	15	European Investment Bank, Allianz Global Investors	Energy, transport infrastructure	Loan	19.8 million tons of CO2 emissions reductions total	Multilateral Bank	1	1	1	2	0	Low
<b>Serengeti energy</b>	East Africa (Kenya, Rwanda, Uganda, Tanzania)	Sub-Saharan Africa	2017	2025	7,5	responsAbility Renewable Energy Holding Company (rAREH)	Renewable energy	Equity, grant	350,000 tons of CO2 avoided per year (over 8 years =2,8 million tons total)	Private sector	1	2	2	2	2	High

<b>Energy and Environment Partnership Trust Fund</b>	Southern and Eastern Africa	Sub-Saharan Africa	Not available	Not available	22	Austrian Development Agency (ADA), MFA Finland), MFA Iceland), Swiss Agency for Development and Cooperation (SDC)	Renewable energy	Loan	Not provided	Government agencies	1	1	1	2	2	Low
<b>ADB Ventures</b>	South East Asia and South Asia	Asia	2020	2037	10	Asian Development Bank	Climate mitigation and adaptation tech	Grant	At least 4 million tonnes of CO2 reduced or avoided	Multilateral Bank	1	1	2	2	2	High
<b>EcoMicro 2.0 Ref. NDF C78</b>	Regional: Latin America and the Caribbean, specifically Bolivia, Nicaragua and Honduras	Latin America	2016	2021	4,1	Inter-American Development Bank (IDB) / Multilateral Investment Fund (MIF)	Banking and financial services (Green microfinance)	Grant	Not provided	Multilateral Bank, multilateral fund	1	2	1	0	1	Low
<b>NDC Pipeline Accelerator Ref. NDC C98</b>	Latin America and the Caribbean	Latin America	2017	Unclear	10	Inter-American Development Bank (IDB)	Multiple (including infrastructure, energy, agriculture, and land use)	Grant	Not available	Multilateral Bank	1	1	1	2	1	Low

<b>NDC Pipeline Accelerator II Ref. NDF C149</b>	Latin America and the Caribbean	Latin America	2023	2028	10	Inter-American Development Bank (IDB)	Multiple (include infrastructure, land-use, agriculture ; circular economy)	Grant	Not available	Multilateral Bank	2	2	1	2	1	High
<b>Africa Circular Economy Facility</b>	Rwanda, Nigeria, South Africa, Ghana, Côte d'Ivoire (Africa)	Sub-Saharan Africa	2022	2027	2	African Development Bank, Ministry of Foreign Affairs Finland	Circular economy (multisectoral)	Grant	Not available	Multilateral bank, Government	1	1	1	2	1	Low
<b>Urban &amp; Municipal Development Fund Ref. NDF C100</b>	Africa	Africa	2018	2021	4	African Development Bank	Infrastructure	Grant	Not available	Multilateral Bank	1	2	1	0	2	Low
<b>AGF Green Guarantee Facility</b>	Kenya, Zambia, Cote d'Ivoire and Ghana (Africa)	Sub-Saharan Africa	2016	2023	7,6	African Guarantee Fund	Sustainable energy, cleaner production , climatesmart	Equity, Grant	Not available	"OTHER: A non-bank, financial institution established to promote access to finance for SMEs in Private sector	2	2	1	2	1	High
<b>Mirova Gigaton Investment Vehicle [C142]</b>	Global, focus on Sub-Saharan Africa	Global; focus on Sub-Saharan Africa	2022	2037	15	Mirova Gigaton Investment Vehicle	Clean energy, e-mobility, energy efficiency	Grant	17 million tons of CO2 reduction	Private sector	2	1	1	2	1	Low

<b>Climate Investor 2 (Construction Equity Fund 2)</b>	"Bangladesh, Botswana, Brazil, Colombia, Côte d'Ivoire, Djibouti, Ecuador, India, Indonesia, Kenya, Africa / sub Saharan Africa	Africa, Asia	2022	2042	15	AfDB, FMO, the Dutch Development Bank; Climate Fund Managers	water, sanitation and ocean infrastructure projects	Grant	44.65 million tons CO2e over the lifetime of the 20-year Programme	Multiple: Private and semi-state owned fund managers, multilateral development banks	2	1	2	2	2	Very High
<b>Facility for Energy Inclusion Off-Grid Energy Access Fund (FEI OGEF)</b>	Africa / sub Saharan Africa	Sub-Saharan Africa	Uncl ear	Uncl ear	6,5	AfDB; various asset managers	Renewable energy (off and on-grid)	Equity, grant	12.1million tonnes CO2e avoided (9.6m on grid; 2.5m off grid)	Multilateral bank; private sector	1	1	1	2	1	Low
<b>BUILD Fund (UNCDF/Bamboo capital) [NDF C136]</b>	Global (lower-income countries and primarily in Least Developed Countries)	Global	2021	2031	9,1	United Nations Capital Development Fund (UNCDF); Bamboo Capital Partners	Food security and nutrition, green economy, financial inclusion	Equity	Not available	Multilateral fund; private sector	1	1	1	0	2	Low
<b>Africa Go Green Fund (AGGF) [NDF C135]</b>	Africa, particularly west Africa	Sub-Saharan Africa	2021	2036	10	KfW, African Development bank, Sustainable energy Fund for Africa (SEFA), Lion's Head Global Partners	Renewable energy, energy efficiency (Green housing, green transport and industrial energy efficiency)	Equity	3 million tons of CO2 during the lifetime of the fund	Multiple: Multilateral Banks, private sector, multilateral fund	1	1	1	2	1	Low

<b>Sustainable Energy Fund for Africa (SEFA)</b>	Africa	Africa	2020	2029	10	African Development Bank	renewable energy, energy access (off-grid connectivity),	Grant	Not provided	Multilateral Bank	1	2	1	2	1	Low
<b>Energy Entrepreneurship Growth Fund (EEGF) Ref. NDF C138</b>	Africa, mainly Sub-Saharan Africa	Sub-Saharan Africa	2022	2033	9,1	Triple Jump	renewable energy, energy access	Equity, grant	not provided	Private sector	1	2	1	2	2	High

## Appendix 3. Coding and methodology

This section is based on a shared concept note across all three evaluating teams.

### Research aim and questions

This project aims to assess the transformative potential of Swedish development for climate with a view to the 1.5 C degree temperature objective set in the Paris Agreement. There are two key research questions:

3. Does Swedish development finance go to activities that have the potential to contribute to large-scale emission reductions/mitigation in developing countries?
4. Time: Does Swedish development finance go to activities whose large-scale contributions can be realised in time, in line with the Paris Agreement?

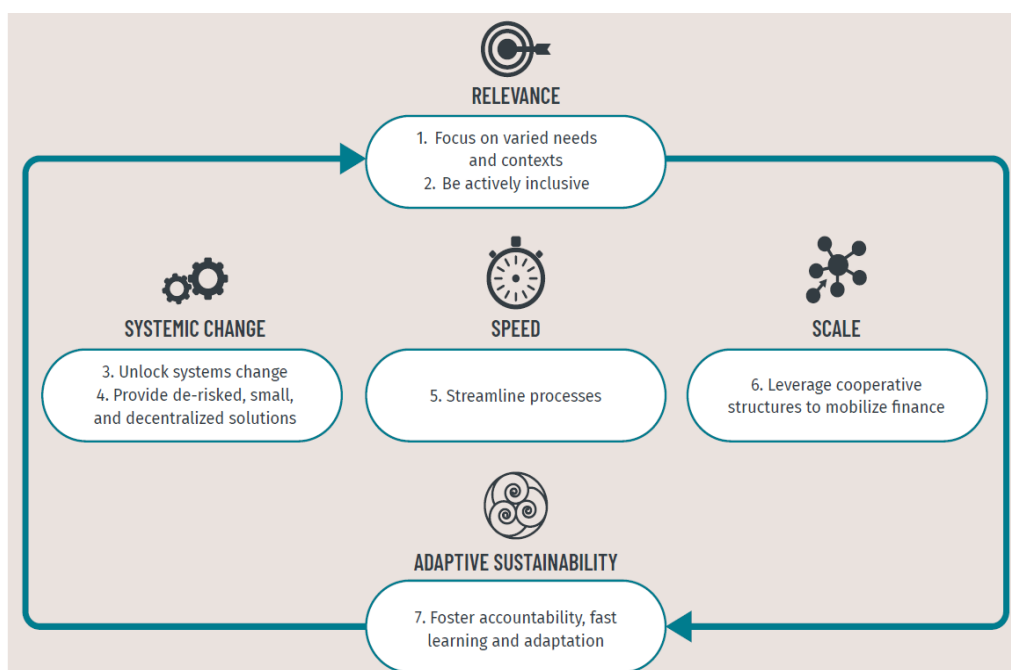
This report outlines the analysis and findings of climate mitigation financing from the Nordic Development Fund, while climate mitigation financing from Sida and Swedfund are analysed in two separate, similar reports prepared by two other teams. To ensure a coordinated approach, a shared methodological note was developed, which is outlined in the following section.

### Methodology

In 2021, the Climate Investment Funds (CIF) published its “Principles for Transformational Climate Finance to advance Just and Equitable Solutions” (Climate Investment Fund (2021); see Figure 23). The CIF principles were developed to support funders and project developers to identify and track transformational change in projects and programmes (Climate Investment Fund, 2023) and were thus deemed to be a relevant analytical framework for this evaluation. It is important to note that these criteria have been used for analysis in this evaluation, but are not used by NDF itself to select projects or make investment decisions. The authors evaluated all portfolios regarding four of the five principles (Relevance, Systemic change, Speed and Scale), but excluded ‘Adaptive Sustainability’ as it was not applicable on a project-by-project basis. Instead, the authors provide summary assessments regarding ‘Adaptive Sustainability’

throughout the text and more in-depth in for the portfolio overall in section 3.5. Beyond the CIF principles, the Additionality of investments has been considered on a project-by-project basis, though not for all project teams. Similarly, the co-benefits of projects beyond mitigation potential were not assessed on a project-by-project basis but summarised for the portfolio as a whole in section 3.4.

**Figure 22: Transformational Climate Finance Principles and the Five Dimensions of Transformational Change**



Source: Climate Investment Fund (2021, 14)

Based on the definitions put forward by Climate Investment Fund (2021) the authors define the four categories as follows and analysed the portfolios based on the following evidence and operationalising questions:

- **Scale:** The magnitude of action and impact of the investments are aligned with the scale of the challenge
  - Evidence of Scale
    - Mentions of how much private finance is raised for every unit of public finance
    - Mentions of catalyzing and unlocking private finance
    - The investment is funding innovation
  - Questions to be answered
    - Is it enabling faster action through innovation, crowding in and catalyzing private finance?

- What is the ratio of private finance mobilized for every unit of public money?
    - Is it funding innovation (e.g. innovative business models or novel solutions)?
  - **Speed:** Investment outcomes will manifest by 2030 and investments contribute to streamlining access to finance
    - Evidence of Speed
      - Timeline of the project – when are which outcomes expected to become reality?
      - Timing of the investment: the investment is providing additional funding into a long-term ongoing initiative
      - If available, a figure of mitigation per annum
      - Evidence of streamlining may include removing red tape, increasing access to finance, building capacity for accessing climate finance, or providing institutional support to accelerate access to finances
    - Questions to be answered
      - Will these outcomes manifest by 2030?
      - Is this making the process of getting money more smooth/streamlined (removing red tape, building capacity-building/institutional support)?
      - Timing of the investment: Is the investment providing additional funds into a long-term initiative? Is it addressing needs identified in previous phases?
  - **Systemic Change:** Investments consider different levels of actors in a coordinated, interconnected, and inclusive manner, and provide new and innovative solutions
    - Evidence of Systemic Change
      - The investment considers the whole lifecycle of an investment and/or a sector
      - Solutions are experimental, small, and/or decentralised
      - Different levels (national, regional, local, etc.) and relevant actors are identified/mentioned/addressed
      - Mentions of capacity-building and institutional support
    - Questions to be answered
      - Is it providing innovation/experimental small, decentralised solutions?
      - Is it building capacity, enabling learning and institutional support?



- Are different levels considered in a coordinated, interconnected and inclusive manner? Is it considering the whole lifecycle of an investment or a sector?
    - Does it consider the long-term effects/sustainability of interventions?
- **Relevance:** Investments are aligned with national needs as identified through NDCs and global areas/sectors of high importance identified in the Paris Agreement
  - Evidence of Relevance
    - Mentions of alignment with NDCs or sectors identified in the Paris Agreement
    - Do NDCs (especially conditional pledges) and the areas identified in the Paris Agreement match the sectors of the project
  - Questions to be answered
    - National: Aligned with NDCs for mitigation?
    - Global: Aligned with areas identified in the Paris Agreement?
- **Additionality:** Would these outcomes have come about without this project? Has additional financing been mobilized through this investment?
  - Evidence of Additionality
    - Mentions of additionality/some form of additionality assessment
    - Innovative and experimental projects are more likely to be additional
    - Mentions of reducing risks or that this is a high-risk investment
  - Questions to be answered<sup>21</sup>
    - Would these outcomes have come about without this project - is there mention of additionality?
    - Is there mention of risk reduction/de-risking?
    - Does it target conditional NDCs for mitigation (if operates on a national scale)

Project documents were analysed with respect to the criteria and questions outlined above. All criteria are individually assessed for each project and

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<sup>21</sup> Please note that the Additionality criterion was initially divided into two sub-questions to assess the level of additionality. However, as other criteria had 3 or 4 sub-questions, the assessment for Additionality was adjusted to be spread across 3 sub-questions to ensure a fair evaluation compared to other criteria.

then assigned a score for each criterion. The three possible assessment responses for each criterion were:

- Yes - if it meets the criteria/answers all questions positively
- No - if it does not meet the criteria/answers none of the questions positively
- Partially - if it meets parts of the criteria/positively answers some of the questions

There is a point score according to these responses:

- Yes = 2
- Partially = 1
- No = 0

Once all 5 categories have been assessed, the overall transformational potential is assessed by adding up scores for indicators across one project. Given the centrality of Scale and Relevance to the transformative potential of projects, an additional 2 points are added for projects that score a 'yes' for both Scale and Relevance. The final scores are categorized as follows:

- Very high = 11-12 points
- High = 8-10 points
- Low = 4-7 points
- Very Low = 3 or fewer points

After the analysis was completed, a calibration meeting was held with all three teams to ensure that the criteria had been applied consistently across the different portfolios.

## **Methodological Limitations**

The key limitation of this study is the kind and quantity of data available for the evaluation. There is no common minimum data threshold across the projects and instead, both the kind of documents available and the level of data available varies greatly between projects. This means that some projects may have scored better if more detailed information had

been available. It is further important to highlight that this is an ex-ante assessment, assessing the expected transformational potential of projects rather than assessing the actual impact of projects during and/or after implementation.

**Conversions:**

Throughout this assessment, monetary sums were provided in SEK, EUR and USD. For this report, sums in SEK and EUR have been consistently converted to USD, using exchange rates from the 2<sup>nd</sup> of January 2024 provided by the International Monetary Fund ([www.imf.org/external/np/fin/data/param\\_rms\\_mth.aspx](http://www.imf.org/external/np/fin/data/param_rms_mth.aspx)). The raw data in the spreadsheet attached remains in the original currencies. These figures have not been adjusted for deflation.